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بتمويل من الاتحاد الأوروبي

Policy Paper

# Transitioning to Circular Packaging and Product Reuse in Lebanon

This paper has been carefully developed by EcoConsulting under the program "From Innovation to Creation"

Implemented by: cewas flourish

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# 01.

# Lebanon's Linear Approach to **Waste Management**

Like most countries, Lebanon has adopted a linear approach to economic development, whereby production and consumption follow the "Take-Make-Waste" pattern. This applies to almost all material flows, and leads to the accumulation of large amounts of waste, the majority of which is not even recycled. Domestic solid waste and construction/demolition waste constitute the largest volume of refuse in Lebanese landfills, and this has been the case since 1990. [1]

Due to Lebanon's small territory (10,452km2) and high population density (560/km2, 27th worldwide), the expansion of existing landfills [2] and the establishment of new ones have always been challenging. In 2015, the closure of the Naameh landfill - one the main landfills receiving Beirut's waste - resulted in the piling up of garbage in the streets, and protests that engulfed the center of the city.

Since then, the waste crisis has been tackled only through a recycling perspective. The hierarchy of waste management which calls for reduction as a priority followed by reuse, and only then recycling, hasn't been adopted, and is very rarely discussed in the public discourse around waste management.

After the 2019 financial crisis in Lebanon, the purchasing power of the Lebanese people was greatly reduced and importing materials became more expensive for industries and consumers alike. For this reason, in addition to the huge environmental and health impact of waste, as well as the dead-end management of waste the country is heading towards, it is crucial for Lebanon to transition to a circular economy.

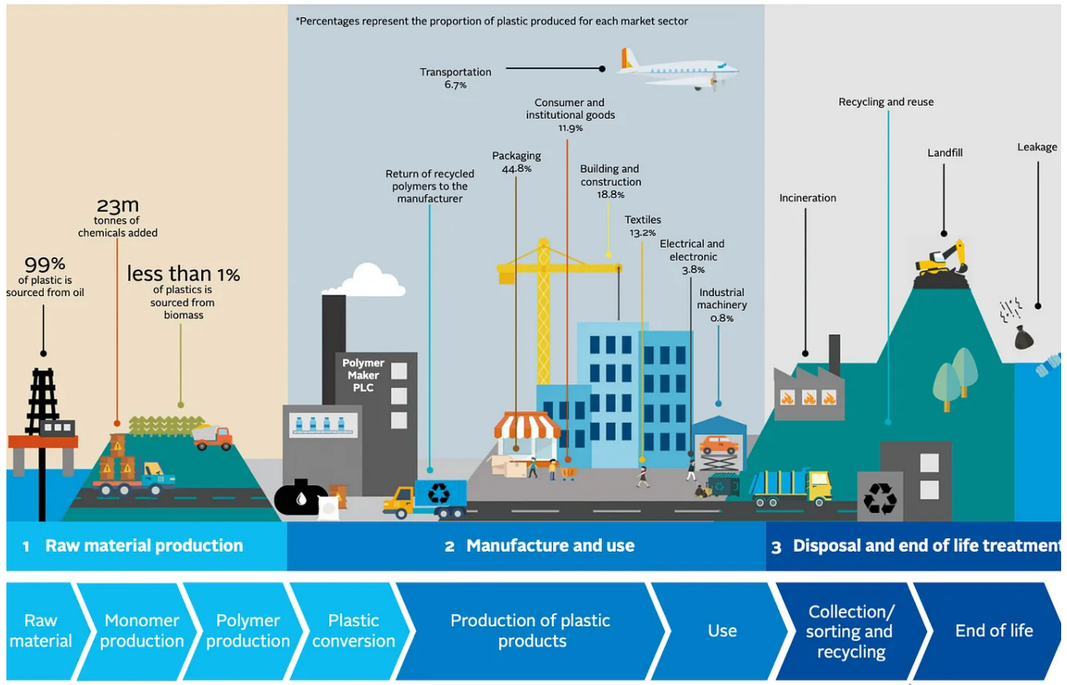
[1] Tamraz, S. N., Srour, I. M., & Chehab, G. R. (2011). *Construction Demolition Waste Management in Lebanon*. AUB Maroun Semaan Faculty of Engineering and Architecture. https://www.aub.edu.lb/msfea/PRGR/Documents/Construction-Demolition-Waste-Management-in-Lebanon-1.pdf

[2] Reports, S., & Reports, S. (2020). Lebanon's Garbage Crisis Affects Vulnerable Groups. BORGEN. https://www.borgenmagazine.com/lebanons-garbage-crisis/



In particular, finding circular local solutions to limit the usage of disposable plastics is essential, as currently only 8 to 9% (on average) of global plastic waste is actually being recycled, while most of it is essentially produced from oil, as shown in the graph below. In Lebanon, about 20% of waste produced is plastic[3] with 77% of the country's waste either openly dumped or landfilled (while it is estimated that only 10 to 12% can't be either composted or recycled).[4] In the MENA region, the recycling figures are similar to global averages with only 9% of generated waste being recycled, with the rest filling up dumpsites or finding their way to open fields. Plastics have particularly low recycling rates: 95% of the waste found in the Mediterranean Sea and its coasts is plastic.[5]

*Figure 1: Overview of the plastic value chain*




*Source: https://www.unpri.org/circular-economy/risks-and-opportunities-along-the-plastics-value-chain/4774.article*

[3] Plastc Lab: "We loved the idea of turning waste into a precious resource". (2021, June 3). Labneh&Facts. https://labnehandfacts.com/media/changemakers/rami-ralph-sbeih-plastc-lab-lebanon/

[4] Lebanon: *Waste crisis posing health risks*. (2023, January 11). Plastic Pollution Coalition. https://www.plasticpollutioncoalition.org/blog/2017/12/5/lebanon-waste-crisis-posing-health-risks

[5] UN-Habitat Lebanon. (n.d.). *"Plan Zero"* to set the foundation for a more environmentally sustainable region: *UN-Habitat joins forces with the private sector to reduce plastic and glass waste in the MENA region*. Lebanon. https://lebanon.un.org/en/177346-%E2%80%9Cplan-zero%E2%80%9D-set-foundation-more-environmentally-sustainable-region-un-habitat-joins-forces

# 02.

# Aim of this Policy Paper

Although a transition towards a circular economy includes many trades and topics, this paper explores possible strategies for Lebanon to adopt a circular approach to waste management and materials revalorization, with a **specific focus on packaging recirculation and product reuse,** looking into:

**a) Reducing waste coming from disposable one-time-usage packaging** through circular packaging solutions, substituting in particular Single Use Plastics (SUPs) and plastic/nylon bags, and;

**b) Incentivizing the reuse/repair/recirculation of products** in Lebanon, lessening the need for imports, increase self-sufficiency, and creating local job opportunities.

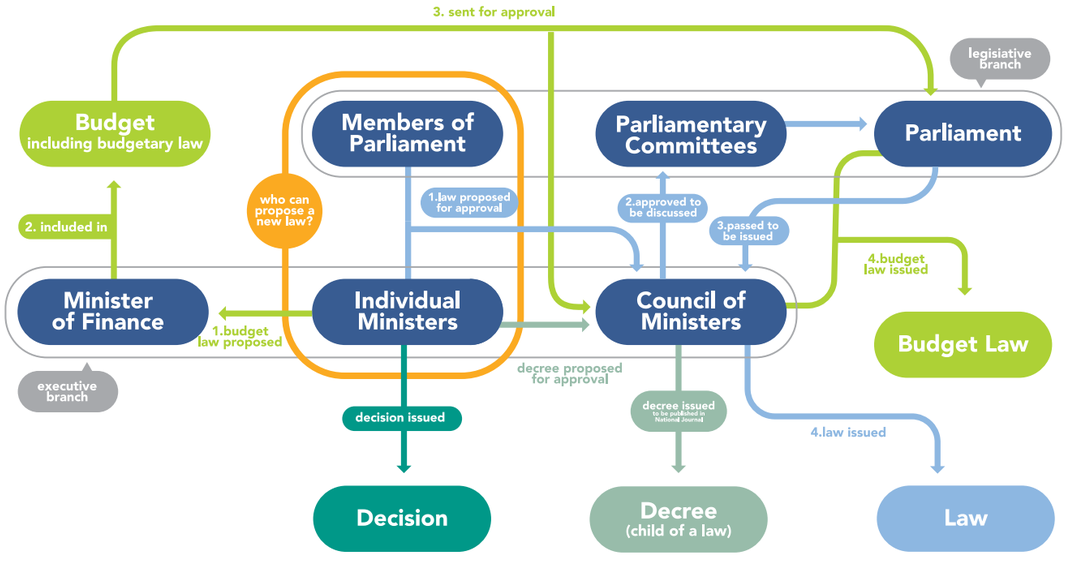
The paper provides initial recommendations and an action roadmap founded on the degree of feasibility of each strategy or solution in the country. It is based on research, local expertise, as well as three short consultations [6].

[6] The consultations were conducted with circular economy experts or practitioners, and stakeholders from the Lebanese Ministry of Environment, the private sector, non-governmental organizations, and consultants.

# 03.

# Overview of the **Legislative Process** for new **Taxes & Bans** in Lebanon

From a legislative perspective, regulations in the Lebanese law can be either a law, a decree, or a decision. Additionally, a budget law can also act as regulation.




As shown in the diagram above, the highest level of regulation, a law, is proposed either by a member of parliament or a minister. The proposed law needs the approval of the council of ministers and parliament for it to be issued.

On the other hand, the decree (child of a law) only requires the approval of the council of ministers after being proposed by an individual minister.

The lowest level of regulation is the decision, which is only issued by an individual minister. Therefore, the hierarchy of regulations in Lebanon is as follows: Law > Decree > Decision.

Additionally, a law can be implemented through the government's budget. A budget law is proposed by an individual minister and can be passed after the approval of the minister of finance over the law and the council of ministers with parliament over the yearly budget.

Implementation and enforcement are another issue: Complications in funding enforcement as well as political issues can get in the way of proper execution. Additionally, the slow and bureaucratic process of the Lebanese judiciary system translates into poor accountability for violators.

In the Lebanese code of law, any regulation related to environmental issues falls under **law 444**. Any law or decree introduced under law 444 becomes a chapter of the law, i.e., an operational decree.

For a more detailed description, please review Annex 4.

# 04.

# Roadmap for **Circular Packaging & Product Reuse** in Lebanon

Any policies or incentives implemented to reduce single-use plastic packaging and/or increase product reuse, repair, and recirculation can be expected to happen in the **short, medium, or long term.** Additionally, the implementation of such regulations or initiatives will vary in **feasibility** and **priority** in the context of Lebanon.

It should be noted that the implementation of the short and medium-term strategies below would most likely not be limited to the period they have been assigned to, and in most cases, they would need continuous follow-up, in parallel with other reinforcement interventions, in order to realistically pick up and succeed.

## Short-Term Strategies
(1 to 2 years)

### Raising Awareness
- Raising awareness about circular practices. Involving Influencers and well-known non-political figures

### Industry/ Business Support
- Pilot a recirculation project with a pool of BSOs and Donors (e.g. in a neighborhood)
- Incentivize/Invest in new circular business models that create recirculation mechanisms
- Capacity building to SMEs on reducing packaging and encouraging bulk packaging
- Engage local packaging industries and provide best practice/capacity building trainings
- Support no-packaging retailers
- Encourage local brands to offer refill options at a discounted price for customers

### Community Support
- Invest in/support new community-led hackerspaces such as Repair Cafes, and supporting existing ones

## Medium-Term Strategies
(2 to 5 years)

### Government Regulations
- Sales restriction of SUPs in targeted events (e.g. festivals) and locations (e.g. natural reserves)

### Labelling & Certifications
- Encourage establishment of 3rd party organizations responsible for labeling and certifications that help consumers make better choices

### Tax Deduction
- VAT credit and other tax credits on reused, repaired, upcycled products and products with reusable packaging

## Long-Term Strategies
(5+ years)

### Government or Company Initiated Pricing Mechanisms
- Refundable deposit when returning plastic containers/bags (Deposit Refund System)
- Minimum price for single use plastic bags (levy)

### Business or Government Regulations
- Packaging Producer Responsability
- Extended Producer Responsability
- Requirements on product design
- Mandatory reusable bags or containers
- Pricing municipal waste disposal based on weight

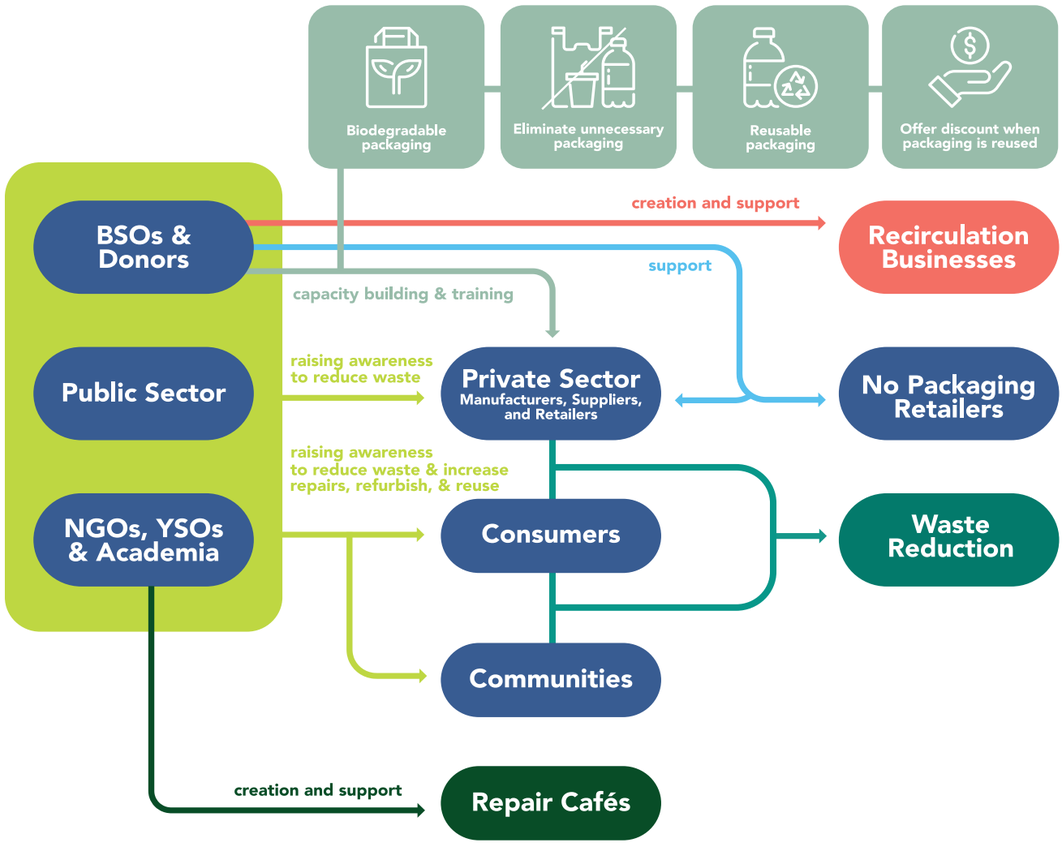
### Government-mandated Bans
- Banning hard to recycle or toxic/hazardous materials
- Total or partial ban on plastic bags and disposable plastic food containers for restaurants and food delivery
- Prohibition of importing and marketing non-local plastic bags and packaging

### Tax
- Tax on intermediate goods (e.g. monomers or resins used to make single-use plastic packaging and bags)

# Short-term Strategies

Short-term strategies are those that can be implemented in the near future, with an expectation of yielding noticeable improvements. They are also less likely to be hindered by political barriers or legal implementation complexities, as they could be fulfilled by the private sector, NGOs, and/or institutions through well-designed programs, with the right pool of stakeholders and targeted funding.

For the sake of this policy paper, we have considered the duration of short-term strategies to be two years or less. It should be noted that short-term strategies might carry on over the medium or long-term to be fully realized or replicated, however they have been considered as feasible to initiate as of now.




Relationship between stakeholders for short-term strategies.

## Short-Term Strategies (1 to 2 years)

| Intervention/Strategy | | Rank* | Examples | Implementers & *Stakeholders* |
|---|---|---|---|---|
| **Industry/ Business Support** | Pilot a recirculation project with a pool of BSOs and Donors (e.g. in a neighborhood) | 1 | Design competition with universities or as a new specific product or service meant to showcase best practice | BSOs, Consultants, universities, pool of organizations (e.g. EcoSwitch Coalition). *Municipalities, ministries, UNIDO, NGOs, SEs, private sector, Lebanon Waste Management Coalition.* |
| **Raising Awareness** | Raising awareness about circular practices. Involving Influencers and well-known non-political figures. | 2 | Media campaigns, trainings, and curriculums that promote circular packaging and reuse | BSOs, NGOs, pool of NGOs (e.g. Lebanese EcoMovement), public sector. *Private sector, general public, students.* |
| **Business Support** | Incentivize/Invest in new circular business models that create recirculation mechanisms | 3 | Assisting repair businesses, investing in new Buy & Sell platforms, and creating new recirculation businesses | BSOs & Donors (UN, UNIDO, ActEd etc.), pool of organizations (e.g. EcoSwitch Coalition). *Private sector.* |
| **Industry Support** | Capacity building to SMEs on reducing packaging and encouraging bulk packaging | 4 | Capacity building workshops with manufacturers to propose ways to eliminate unnecessary packaging & adopt more sustainable packaging | BSOs & Donors (UN, UNIDO, ActEd etc.), circular economy experts. *Private sector.* |
| **Industry Support** | Engage local packaging industries and provide best practice/capacity building trainings | 5 | Trainings for industries to transition to biodegradable, compostable, and reusable packaging | BSOs & Donors (UN, UNIDO, ActEd etc.), experts. *Private sector.* |
| **Business Support** | Supporting no-packaging retailers | 6 | Funding and technical support for no-packaging retailers to set up additional branches, expand the diversity of their products | BSOs & Donors (UN, UNIDO, ActEd etc.), pool of organizations (e.g. EcoSwitch Coalition). *Private sector.* |
| **Community Support** | Investing/supporting new community-led hackerspaces such as Repair Cafes, and supporting existing ones | 7 | Create new Repair Cafés that allow sharing repair knowledge in communities | Pool of NGOs (e.g. Lebanese EcoMovement), public sector (e.g. municipalities). *Communities.* |
| **Industry/ Business Support** | Encourage local brands to offer refill options at a discounted price for customers | 8 | Raise awareness among small scale producers to offer a discount for customers who reuse packaging | BSOs & Donors (UN, UNIDO, ActEd etc.). *Private sector.* |

*Rank calculated by aggregating the feasibility and priority scores achieved during the consultation phase, as highlighted in Annex 5.

## 1. Pilot a recirculation project with a pool of BSOs & Donors

A specific circular packaging or product re-use challenge can be initiated with a selected pool of BSOs, donors, philanthropists, corporations, industrialists, and/or universities. This could, for instance, be launched or led by the EcoSwitch Coalition[7] in Lebanon, or any of its partners under internationally funded programs.

As an example, the pilot could be formatted as a design competition with universities, or as a new specific product or service introduced in a target neighbourhood or region, with the purpose of testing it and showcasing best practices. This strategy opens up the potential to scale up, based on lessons learnt, demonstrating the benefits of the pilot project, and eventually to advocate for new re-circulation laws afterwards.

## 2. Raising Awareness about Circular Practices

Raising awareness can be implemented in the short-term and could not only target consumers, but also industries and businesses. The effectiveness of this strategy depends on its outreach, the content of its message, feasibility of its requests, and susceptibility of listeners to accept the message.

### *Raising Awareness through Education*

Additionally, raising awareness about circularity in education at all levels is key: involving schools and universities in addition to organizing events with students. In order to achieve this, relevant educational content would need to be added to curricula, which could be done in the medium to long-term. This would open up opportunities for the development of new skills and the creation of innovative circular jobs in the future.

### International Example

A study in Australia has shown that waste abatement campaigns (mainly outreach programs such as 'Don't be a Tosser', Clean Up Australia, and the Bin your Butts cigarette campaign) are more effective than government policies in reducing plastic waste in the marine environment.

[7] The EcoSwitch Coalition is a network of organizations that support eco-entrepreneurs in Lebanon (ecoswitchcoalition.creation.camp)



## 3. Incentivize/Invest in new circular business models that create re-circulation mechanisms

In order to be expanded, such initiatives require incentivization and/or investment in the creation of new circular companies, i.e. service providers, or by supporting existing ones, to enable circularity in the areas of: repair/refurb, second-hand providing/sourcing, and packaging recirculation. This can be implemented at several levels:

### *Repair/Refurb:*

Incentivizing existing repair/refurb businesses through loans, grants, marketing, and technical professional trainings for highest quality of repairs/refurbishment, and creating new ones when needed.

### *Buy & Sell Platforms – Second-Hand Providing/Sourcing:*

Expanding Buy & Sell platforms by widening their scope and creating new ones for specific markets.

### *Packaging Recirculation – Food & Beverages:*

Establishing one or many service providers that handle reusable food packaging.

### *Packaging Recirculation – Other Items:*

This intervention in non-food packaging would only be suitable to products locally produced, assembled, or packaged.

## 4. Capacity Building to SMEs on reducing packaging & encouraging bulk packaging

Capacity building workshops can be organized with manufacturers to study and propose practical and cost-effective ways to eliminate or reduce unnecessary packaging in the distribution process, while keeping their functionality, i.e., preserving food, safety of products, etc. Such workshops could be provided by sector (e.g. pharmaceutical industry, food industry, distributors) and for corporations and businesses.

As a long-term strategy, some of these measures could become mandatory when regulated by the state. Regulations could be based on success stories/best practices.

## 5. Engage local Packaging Industries & provide best practice/capacity building trainings

Local packaging manufacturers and distributors can be supported through capacity building and trainings with international and local experts, showcasing best practices, eliminating unnecessary packaging, and engaging with local suppliers to transition to biodegradable, compostable, and reusable packaging, while showing the impact and economic benefits for exporting to better regulated markets.

This intervention also targets repair and refurb businesses to assist them in improving the quality of their services while increasing their circularity. This can particularly benefit repairers in the white goods and electronics repair category.

### International Example

Initially launched in Australia and then reproduced in other countries, a campaign led by industry-partnership to push SMEs to transition to more sustainable packaging was initiated late 2022. The project targeted 20,000 SMEs, educating them on the benefits of using the Australian Recycling Label (ARL) on their products and taking action to ameliorate their packaging sustainability.

## 6. Supporting no-packaging retailers

Funding through grants and impact investors, as well as technical support, can be offered for no-packaging retailers to set up additional branches, expand the diversity of their products, and improve their operations, such as *Dekenet Al Nes.* [8]

As long-term strategies, tax incentives could be offered for no-packaging retailers to give them an advantage in the market and push other retailers to adopt similar models.

[8] Website: https://dekenetalnes.com/



## 7. Investing/supporting new community-led Hackerspaces such as Repair Cafes, and supporting existing ones

A hackerspace is a community-operated workspace where people with common interests such as computers, machining, equipment, art, and technology can work individually or as a group. Hackerspaces usually contain the tools necessary for assembling or repairing certain items and they promote a repair culture in the communities where they are located.

Some variations of hackerspaces are dedicated to craftwork, repairs, or a certain interest. Repair Cafés are one of these variations that allow for the sharing of repair knowledge, making broken parts, and collaborating in repair projects. Other variations include tool libraries and bicycle coops.

FabLabs can also be incentivized to emphasize high quality repairs and repurposing, and to operate in a circular manner.

## 8. Encourage local brands to refill products at a discounted price for customers

Capacity building can be offered to small scale local producers (e.g. dairy products, mouneh, local beverages, cleaning products, etc.) to give a discount for customers who return their packaging materials like containers and bottles/gallons to refill them. Savvy Element[9] has successfully adopted this model, where gallons of green cleaning products are exchanged for new ones, and containers are cleaned, refilled, and put back on the market. This strategy is especially valuable in regions where customers are located in the same geographical area as the producer, and has both economic and environmental advantages.

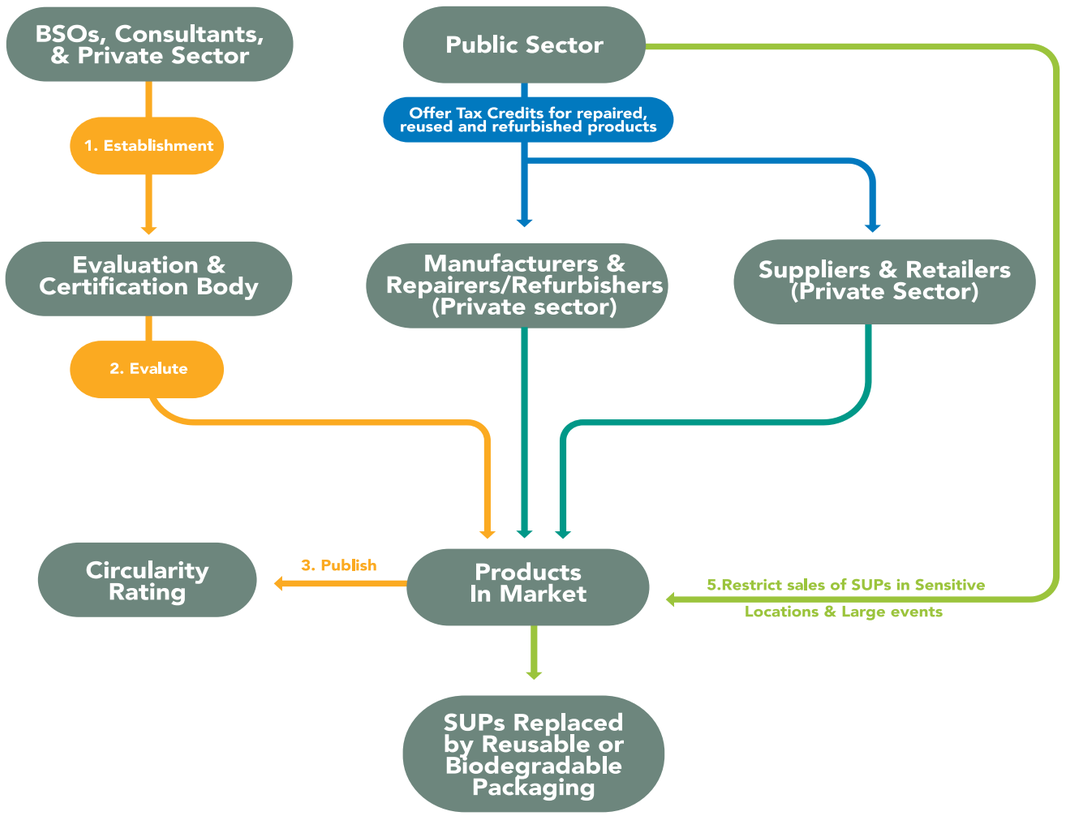
## Mapping

In addition to the above initiatives, a process of mapping and compiling data for existing circular service providers, waste management initiatives, circular businesses, and others in Lebanon is very important. Effective mapping can act as a first step to better understand the current situation of circular material flows in the country, in order to work with those that are already established and thereby help transition the rest of the economy.

[9] https://savvyelement.co/

# Medium-term Strategies

Medium-term strategies are difficult to implement immediately but could be carried out in the near future. They are a mix of elaborate business support strategies with regulations that are easier to approve, and have a focus on incentives rather than prohibition or penalties.




Relationship between stakeholders for medium-term strategies.

## **Medium-Term Strategies** (2 to 5 years)

| Intervention/Strategy | | Rank* | Examples | Implementers & *Stakeholders* |
|---|---|---|---|---|
| **Government Regulations** | Sales restriction of SUPs in targeted events (e.g. festivals) and locations (e.g. nature reserves) | 1 | Enforcement of no sales of SUPs in nature reserves (e.g. Chouf Biosphere or Jabal Moussa Reserve), and in large events and conferences (e.g. the yearly book fair at Biel, the Beirut Marathon, or concerts at Forum de Beyrouth) | Public sector, law enforcers. *Private sector, attendees.* |
| **Labeling & Certifications** | Encourage the establishment of 3rd party organizations responsible for labeling and certifications that help consumers make better choices | 2 | Establishment of a certification body that scores products in the market and labels them in terms of circularity. The scores will be published online as a reference for consumers. | BSOs, Consultants, Donors, Public Sector. *Private sector, manufacturers, SMEs.* |
| **Tax Deduction** | VAT credit and other tax credits on reused, repaired, upcycled products and products with reusable packaging | 3 | Offer a VAT tax credit on repaired, refurbished, or reused products that are imported or resold. Those products would also be exempted from customs duty. | Public sector, law enforcers. *Private sector, traders.* |

*Rank calculated by aggregating the feasibility and priority scores achieved during the consultation phase, as highlighted in Annex 5.

## 1. Sales Restriction of SUPs in targeted events and locations

The sales and distribution of SUPs and single-use packaging can be restricted in certain areas, events or sectors as a first step before a total national ban. Protected areas such as nature reserves or protected beaches can be singled out as SUP-free zones. Additionally, events with large attendance and high waste impact – such as the Beirut marathon, large expos, and music concerts – can be targeted to become SUP-free as well.

The scope of this initiative can be enlarged to encompass big educational and health institutions and other large public and private institutions/companies where many occupants use the facilities on a regular basis. This could include universities, schools, hospitals, large enterprises/institutions, the airport, and the port of Beirut.

## 2. Encourage establishment of 3rd party organizations responsible for Labeling & Certifications

Third-party labels and certificates can act as a driver for consumers to select products with better ratings. Labeling and certification schemes could be launched independently as an initial, medium-term phase only to become mandatory at a later stage by government regulation.

Lobbying to make sure that labeling and certifications are available on consumer products will help consumers make better choices while minimizing domestic waste.

However, as a first step, a labeling body can be established to scour the local market for popular products and label them according to circularity metrics. The certifying body needs to be formed of a pool of experts and stakeholders that have no conflicts of interest in the decision-making process, which should be based on consensus.



## 3. VAT Credit & other Tax Credits on reused, repaired, upcycled products and products with reusable packaging

### VAT Credit

The deduction of VAT on products and services that minimize packaging and SUPs or promote repair can be offered on several levels. For example, a 50% reduction in VAT could be discounted from the price of products that use reusable packaging, found in repair shops, and/or for businesses that eliminate plastic bags and containers, until this becomes mandatory by regulation (long-term strategy).

### Other Tax Credits

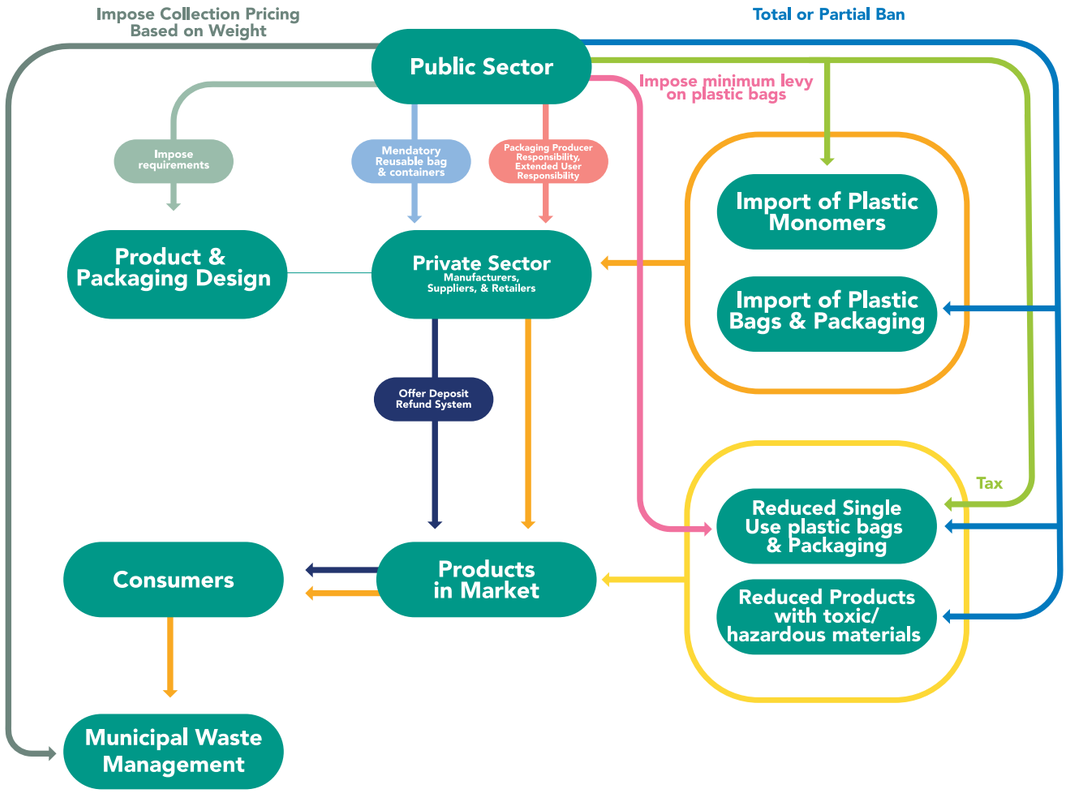
The incentivisation of circular businesses or products can also be achieved with other tax deductions such as the commercial tax, customs duties, or municipal fees. For instance, customs duty can be lowered or removed on imported circular products, similar to the tax exemption offered for hybrid and electric cars imported into Lebanon. The tax credit can target reused, repaired, upcycled products, products with reusable packaging, and spare parts for repair.

#### International Example

In an effort to encourage repair, Swedish policymakers implemented in 2017 a reduction in Value-Added Tax (VAT) for repairing items such as bicycles, clothes, household linen, leather goods, & shoes. This tax credit reduces VAT for repaired goods on the market from 25% to 12%, making it more affordable and desirable to repair damaged or malfunctioning items instead of discarding them and generating more waste.

# Long-term Strategies

Long-term strategies are the most effective, but also the most challenging to implement due to the crucial need for legislation to enable them, as well as the resources and will needed for proper enforcement. These interventions involve bans, taxes, regulations, and legal requirements.




Relationship between stakeholders for long-term strategies.

## Long-Term Strategies (5 + years)

| Intervention/Strategy | | Rank* | Examples | Implementers & *Stakeholders* |
|---|---|---|---|---|
| **Government or Company initiated Pricing Mechanisms** | Refundable deposit when buying plastic containers/bags (Deposit Refund System) | 1 | Glass soda bottle that is returned by the consumer to the shop (locally known as *Chraba Redda*). | Private sector. *Consumers.* |
| **Business Regulation** | Packaging Producer Responsibility | 2 | Legislation that regulates packagers by mandating their registration as packaging manufacturers and respect of recycling rates. | Public sector. *Private sector.* |
| **Business Regulation** | Extended Producer Responsibility | 3 | Legislation making packagers pay for the environmental impact of their packaging. | Public sector. *Private sector.* |
| **Government-mandated Ban** | Banning hard to recycle or toxic/hazardous materials | 4 | Banning the import of polystyrene and polystyrene packaging which is a toxic material that regularly ends up in landfills. | Public sector. *Private sector, traders.* |
| **Government-mandated Ban** | Total or partial ban on plastic bags and disposable plastic food containers | 5 | Banning the use and distribution of single-use plastic bags in retail. Same for disposable plastic containers and cutlery inside restaurants, and later on extend this to deliveries in the F&B industry. | Public sector. *Private sector, Consumers.* |
| **Government or Company initiated Pricing Mechanisms** | Minimum price for single-use plastic bags (levy) | 6 | Shoppers pay a minimum price for every plastic bag they get from the supermarket or retail shops. | Public sector, *Private sector. Consumers.* |
| **Governmental Taxes** | Tax on intermediate goods | 7 | Impose a customs tax on the import of monomers and resins used in the making of single-use plastic packaging and bags. | Public sector, *Private sector. Consumers.* |

*Rank calculated by aggregating the feasibility and priority scores achieved during the consultation phase, as highlighted in Annex 5.

## 1. Refundable deposit when buying plastic containers/bags

The Deposit Refund System (DRS) imposes a small deposit (as small as 15 cents) on consumers when buying packaged items. This deposit is refunded when the empty packaging is returned. This strategy is best operated in conjunction with reusable packaging that will be cleaned and re-filled, but it can also be used for recyclable packaging. The scheme can be initiated by businesses or required and administered by the local or national authority.

### International Example

The DRS system is often mandated by legislation, but it can also be voluntarily introduced by companies in the market. Through a DRS, Norway achieved a 97% recycling rate of plastic bottles while Germany reached a 98.4% return rate on plastic, glass, and aluminum.

## 2. Packaging Producer Responsibility

This strategy imposes thresholds and requirements for packaging and obligates packaging producers to register and meet their waste packaging recycling responsibilities[10] .

**The responsibilities include:**

- Register as a packaging producer
- Meet their recycling obligation
- Obtain evidence of compliance
- Submit a certificate of compliance

## 3. Extended Producer Responsibility

Extended Producer Responsibility (EPR) legislation holds producers responsible for any negative environmental externalities of their products, and associated costs. It is a policy approach under which producers are given significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products. EPRs fees can be modulated in order to account for the differential impact of options, including the likelihood of being littered. EPR could also be applied to cover the costs of other measures such as information campaigns[11].

[10] https://www.gov.uk/guidance/packaging-producer-responsabilities
[11] https://www.theswitchers.org/sites/default/files/2022-09/SUP_Guidelines_ENG_compressed.pdf



## 4. Banning hard to recycle materials or Toxic/Hazardous Materials

Hard to recycle materials pose a large obstacle in achieving higher recycling rates. Although prioritizing recycling is not the most effective way to achieve circular material management, having high recycling rates is crucial to ensure no materials are lost in the technical cycle. Banning hard to recycle materials in packaging is a focused legislative strategy that aims to remove these obstacles and streamline the material flow in recycling. The most notable example of hard to recycle material is polystyrene for food and beverages.

## 5. Total or Partial Ban on Plastic Bags

The ban of plastic and nylon bags involves prohibition on the production, import, commercialization, and distribution of non-biodegradable plastic bags. If enforced effectively, this strategy forces all stakeholders to shift to other alternatives. Since passing ban legislation is challenging and enforcement is also difficult to guarantee, this is considered a long-term strategy.

## 6. Minimum price for single-use plastic bags

This strategy aims to reduce the cheap price advantage of plastic bags by imposing a minimum fee upon their use. Putting a price on convenience will make the use of plastic bags less ubiquitous. The initiative works especially well when combined with a proper nation-wide awareness campaign.

### International Example

An environmental levy was imposed on nylon bags in all shops and supermarkets in Ireland in 2002. Consumers had to pay the equivalent of €0.20 per nylon bag or bring their own alternative. The initiative was so successful that it triggered similar regulations in many countries and cities around the world.

## 7. Tax on specific intermediate goods

Since taxing SUPs at the stage of industry output (gate) or retail level is much more challenging due to its decentralization, this strategy aims to effectively control the flow of plastics used in bags and packaging at the source. Therefore, this scheme would tax monomers or resins used to make single-use plastic packaging and bags. This tax could apply to the sale or purchase of inputs and refined materials, which limits tax enforcement to a few centralized locations.

## 8. Requirements on product design

Product design measures could be taken to reduce the propensity for certain items to be littered. This regulation could for example be imposed on packaging manufacturers to bind bottle caps to single-use bottles or integrate straws into the design of the packaging. Ideally caps and straws would be made of the same material, enabling it to be recycled in one go without the need for disassembly. Usually, smaller items are rarely collected during recycling, so joining them to larger items will increase their probability of being recycled.

### International Example

The best example is the new Circular Economy Action Plan released by the European Commission in March 2020, which aims to make the European market more sustainable, circular, and competitive. The action plan sets goals for reducing the material/consumption footprint. It puts design at the center of the policy, aims to achieve digitization and servicification, highlights the "Right to Repair", aligns the circular economy strategy with the EU climate strategy, and aims to ensure equity during the transition.

## 9. Mandatory reusable containers

This strategy mandates that restaurants, bistros and cafes must offer reusable containers, glasses, cutlery, and straws on-site and for their takeaway products, which should not be more expensive than products in disposable packaging. This strategy can be applied to certain packaged goods whether they are food or non-food related. For instance, the government could require reusable/refillable containers to be used for all locally produced beverages.



### International Example

In 2024, the French government imposed a ban on disposable plates, cups, and tableware for anyone eating or drinking on-site. This regulation applies to restaurants, fast-food chains, work canteens, bakery chains, and sushi outlets with more than 20 seats, which must provide reusable, washable cups, plates, dishes, and cutlery for customers eating in.
It goes a step further than the EU Directive requiring the substitution of plastic disposables with bioplastic disposables, which still require resources to produce and create unnecessary waste.

## 10. Prohibition of importing and marketing non-local plastic bags and packaging

This partial ban requires a prohibition on the import and marketing of non-biodegradable plastic bags and packaging not produced in the national territory. Such a strategy might garner the support of local industry, but the effectiveness of its circularity is limited to coupling it with other schemes aimed at reducing the impact of the national plastics and packaging industry.

## 11. Pricing municipal waste disposal based on weight

This strategy mandates pricing municipal waste disposal from homes and businesses based on weight. Although this initiative passes the cost of waste disposal directly to consumers, it has the advantage of incentivizing businesses and homes to reduce their waste by adopting circular alternatives such as reusable packaging when shopping, and donating or selling unwanted items such as clothes, furniture, or toys.

## 12. Sin" Tax, additional tax on SUPs

A "sin" tax involves taxing single-use plastic packaging and bags. The strategy can be implemented in many ways such as having: a flat tax, an incremental tax based on plastic volume, different taxes for different types of plastic, and so on. Since bans are challenging to enforce, taxing SUPs is a more feasible strategy. It also has the advantage of increasing the government's income, which makes it easier to pass as legislation, although it would require additional accounting procedures.

# 05.

# Next Steps & Policy Recommendations

A transition to circular practices in packaging, repair, and reuse in Lebanon necessitates the involvement of all stakeholders specifically Business Support Organizations (BSOs), donors, NGOs, the private sector, as well as the public sector and municipalities.



## Business Support Organizations, NGOs, & Donors

BSOs and NGOs supporting start-ups or established businesses in Lebanon should seek support from donors, by suggesting well thought-of proposals directed towards initiating the short-term interventions highlighted in this policy paper, and securing funding to activate them. Additionally, the role of international and local donors or agencies is crucial in terms of consulting with local BSOs and specialized NGOs for a better understanding of the local needs to enable the right pilot projects, capacity building, expertise and upskilling needed. A collaborative approach is equally important to ensure the success of most initiatives, by engaging multiple stakeholders from the private and public sectors as well as academia, local communities, and consumers/users.

This action is the most pressing since most of the short-term strategies require the leadership of BSOs and specialized NGOs to materialize and push the circular economy transition forward. Successful piloting of specific circular projects will allow for lessons learnt, improvements, establishment of best practices, replication, scaling up of impact, and broadening the scope of the intervention.

**Short-term steps for BSOs, NGOs, & Donors**

- **Pilot recirculation projects**
- **Raising awareness**
- **Incentivize/Invest in new circular business models that create recirculation mechanisms**
- **Capacity building to SMEs on reducing packaging**
- **Engage local packaging industries and provide best practice capacity building**
- **Support no-packaging retailers**
- **Encourage local brands to offer refill options at a discounted price**

Medium-term steps for BSOs, NGOs, & Donors

- Encourage the establishment of 3rd party organizations responsible for labeling and certifications

## NGOs, YSOs, Academia & Communities

Additionally, schools, universities, communities and NGOs also have a role to play in addressing and involving the public in the transition whether through raising awareness, integrating circular education in their curriculum, or creating or promoting community spaces that encourage reuse, repair, upcycling, or repurposing.

**Short-term steps for NGOs , Academia & Communities**

- **Raising awareness about circularity**
- **Investing/Supporting new community-led hackerspaces such as Repair Cafes, and supporting existing ones**

## Private Sector

The private sector has an important role to play in adopting the initiatives highlighted above, implementing more circular packaging, innovating new circular business models, and offering maintenance services and high-quality second-hand options. Private businesses should collaborate with BSOs in the short-term and participate in drafting circularity labeling in the medium-term. In the long-term, it is expected that the private sector implements more progressive models and Extended Producer Responsibility actions such as take-back programs or Deposit Refund Schemes.

| **Short-term steps for Private Sector** | Medium-term steps for Private Sector | Long-term steps for Private Sector |
|---|---|---|
| • **Collaborate with BSOs in capacity building and testing new circular schemes** | • Provide input for circular labelling & certifications | • Offer refundable deposit when buying plastic containers/bags |



## Public Sector

The state has a major role to play in the transition to circular packaging and product reuse. Although the fruits of any efforts are expected in the long run, it is crucial that the push for circular packaging and reuse is initiated as of today. All the policies imposed by the government whether they are bans, taxes, regulations, restrictions, or regulations need to be drafted and pushed for from now until their enactment. New tax credits and penalties should target "bottlenecks" as a priority, before pushing the market at large to transition to circular packaging and increased product reuse, repair, refurbishment, and upcycling.

| Medium-term steps for Public Sector | Long-term steps for Public Sector |
|---|---|
| • Impose sales restriction of SUPs in targeted events and locations<br>• Offer VAT credit and other tax credits on reused, repaired, upcycled products, and products with reusable packaging<br>• Impose a minimum price for single-use plastic bags<br>• Tax intermediate goods<br>• Impose requirements on product design<br>• Mandate reusable bags or containers<br>• Prohibit importing and marketing non-local plastic bags and packaging<br>• Price municipal waste based on weight<br>• Impose a "sin" tax on SUPs | • Enact Packaging Producer Responsibility and Extended Producer Responsibility (PPR & EPR) legislation<br>• Ban hard to recycle or toxic/hazardous materials |

*Disclaimer: It is important to note that this paper is limited in scope and does not address all the facets of the Circular Economy transition in Lebanon. Furthermore, the assessment of the interventions highlighted in the paper is based only on expert opinions not on rigorous surveying of market dynamics and industry and consumers' reception. Therefore, the listed strategies and their rankings can be used as a guiding compass, and are not exhaustive.*

# 06.
# Annexes

## Annex 01
## First Table of Strategies

| Strategy & Location | Type | Description | Applies to Plastic Bags | Applies to Packaging |
|---|---|---|---|---|
| Plastic bags ban (COMOROS, BENIN, SEYCHELLES, & others) | Total or partial ban | Total or partial national ban on the production, importation, commercialization, and distribution of non-biodegradable plastic bags | x | x |
| Minimum price for plastic bags (SLOVAKIA, COLOMBIA, & others) | Pricing mechanism | Introducing a minimum price for plastic bags | x | |
| Refundable deposit when buying plastic bottles (SLOVAKIA) | Pricing mechanism (Deposit Refund System) | Mandating a refundable 15c deposit when buying plastic bottles | | x |
| Public sponsored information campaign (FINLAND) | Raising awareness | Developing a music video to raise awareness about plastic bags | x | x |
| Prohibition of importing and marketing non-local plastic bags and packaging (DJIBOUTI) | Partial ban | The import and marketing of non-biodegradable plastic bags and packaging not produced in the national territory are strictly prohibited | x | x |
| Packaging producer responsibility (UK) | Business regulation | Imposing thresholds and requirements for packaging | | x |
| Pledge to end single-use plastics (Costa Rica) | National pledge | Set a target year and pledge to end single-use plastics by then | x | x |
| Ban of microbeads (UK) | Business regulation | Ban of cosmetics and personal care items with microbeads | | |
| Extended Producer Responsibility (EPR) | Business regulation | EPR legislation holds the producers of products responsible for any negative environmental externalities and associated costs | | x |
| Requirements on product design | Business regulation | Product design measures could be taken to reduce the propensity for certain items to be littered | | x |
| Sales restrictions | Government regulation | Restrictions on the sales and distribution of SUPs in specific locations or events | x | x |
| VAT credit (SWEDEN) | Tax credit | Discount of VAT tax (from %25 to %12 in Sweden) for repairs | | x |

| | | | | |
|---|---|---|---|---|
| Remanufacturing (FINLAND) | Service / Corporate | Remanufacturing items that have reached their end-of-life stage which reduces energy and resource use considerably | | x |
| "Sin" tax | Tax | Implementing a tax on SUPs similar to a carbon tax | x | x |
| Pledge to phase out single-use plastics (AUSTRALIA) | National pledge | Aim to phase out single-use plastic packaging and ensure that all packaging is reusable, recyclable, or compostable by a certain year | x | x |
| Mandatory reusable containers (GERMANY) | Business regulation | Restaurants, bistros and cafes must offer reusable containers for their takeaway products, which cannot be more expensive than products in disposable packaging | | x |
| Banning hard to recycle materials (USA) | Ban | Banning hard to recycle materials such as polystyrene for food and beverages | | x |
| Tax on intermediate goods | Tax | Taxing monomers or resins: this can apply to the sale or purchase of inputs and refined materials | | x |
| Support for businesses engaging in reusable packaging (USA) | Business support | Selected companies will gain unparalleled access to reusable experts and investors, as well as increased visibility as a "U.S. Pact Reuse Catalyst Partner." | | x |
| Tax breaks for businesses implementing reuse or reusable packaging | Tax break | Sales tax break for businesses that reuse materials for production or packaging | x | x |
| Labeling and certifications that help the consumer make better choices (AUSTRALIA) | | For industries larger than a certain scale: incentivize to make the change from the start through ecodesign | | |
| Break Free from Lebanon | | | | |
| Reduced packaging, encouraging bulk packaging | | | | |



# Annex 2
# Stakeholders Participating in the 3 Consultations

| Name | Affiliation | 1st Consultation | 2nd Consultation | 3rd Consultation |
|---|---|---|---|---|
| Maya Karkour | EcoConsulting | X | X | X |
| Nathalie Khoury Braidy | Circular Economy Specialist | X | X | X |
| John Rbeiz | Circular Economy Specialist | X | | |
| Talar Kokjian | CEWAS | X | X | X |
| Mohamad Mortada | EcoConsulting | X | X | X |
| Joslin Kehdi | Recycle Lebanon | X | X | X |
| Lea Kai | UNDP | X | | |
| Sammy Kayed | Environment Academy | X | X | |
| Aya Hoteit | Beyond | | | X |
| Samer Corban | Buy and Sell platform - Ajjerni GE | | | X |
| Anthony Abdel Karim | Annine Fadye | | | X |
| Ahlam Sfeir | Sole Sisters | | | X |
| Cynthia Kreidi | Millennium Institute | | | X |
| Chahid Chamoun | Arcenciel | | | X |
| Nabil Farah | PETCO SAL | | | X |
| Mohammad Aboudib | PETCO SAL | | | X |

# Annex 3
# Overview of International Case Studies

International case studies and examples related to the transition to circular packaging and reuse are numerous and diverse. In our research we have selected and grouped in sub-categories those that could become applicable in the local Lebanese context; they are by no means exhaustive. The interventions or case studies described below showcase different approaches and/or rely on a variety of initiatives or tools targeting different parties and stakeholders to achieve a circular transition.

## Raising Awareness

Raising awareness has been the preferred tool for the reduction of environmental impact since the beginning of the environmental movement, such as ads (on billboards or other media), awareness events, education in schools and universities, and general education about the advantages of reducing SUPs, reuse, and repair.

A number of studies were conducted to evaluate the effectiveness of awareness campaigns, although it seems that none have been undertaken in Lebanon. Certain literature suggests that environmental conservation awareness campaigns have little effectiveness. Other studies show that awareness campaigns against SUPs and single-use packaging are more effective than other policies with a similar goal. For example, strategies such as Plastic Shopping Bag Bans, Zero Waste, and Recycling Strategies had less impact than awareness campaigns. Moreover, a study in Australia has shown that waste abatement campaigns (mainly outreach programs such as 'Don't be a Tosser', Clean Up Australia, and the Bin your Butts cigarette campaign) are more effective than government policies in reducing plastic waste in the marine environment. [12][13][14]

## Taxation

Taxation can be a very effective way to encourage product re-circulation or a reduction in SUP usage. Taxation can be through the form of tax credits for eco-friendly products, or on the contrary, introducing additional taxes for harmful products or materials.

For example, in an effort to encourage repair, Swedish policymakers implemented in 2017 a reduction in Value-Added Tax (VAT) for repairing items such as bicycles, clothes, household linen, leather goods, and shoes[15]. This tax credit reduces VAT for repaired goods on the market from 25% to 12% making it more affordable and desirable to repair damaged or malfunctioning items instead of discarding them and generating more waste.



Another case is the environmental levy that was imposed on nylon bags in all shops and supermarkets in Ireland in 2002. Consumers had to pay the equivalent of €0.20 cents per nylon bag or bring their own alternative. People became very creative and started carrying tote bags, baskets, bike baskets, boxes, etc. Subsequent studies have shown that they made the effort not only to avoid paying the levy, but even more so because they became convinced by the need to drastically reduce disposable nylon bag usage, seeing in particular many bags blown by the wind and trapped on tree branches, damaging the image of the green Irish landscape they were proud of. The initiative was so successful – not only in reducing nylon bag usage but also raising awareness about the damage caused by them – that many countries or cities around the world have since followed suit by adding targeted taxes or levies on plastic bags [16].

Another example is local: In 2018 the Lebanese government offered a tax credit for imported electric cars, completely exempting them from custom duty taxes. This provides a significant reduction from non-electric cars, which have a 20% customs tax for vehicles valued under $13,300 USD and a 50% customs tax for cars valued more than that [17]. Although not related to SUPs, this case shows how taxation can have a positive impact on the transition to greener solutions.

## Governmental Policies & Directives

The best example is the new Circular Economy Action Plan released by the European Commission in March 2020, which aims to make the European market more sustainable, circular, and competitive. The action plan sets goals for reducing the material/consumption footprint; It puts design at the center of the policy, aims to achieve digitization and servicification, highlights the "Right to Repair", aligns the circular economy strategy with the EU climate strategy, and aims to ensure equity in the transition[18]. This overhaul of policies is a systemic change that will push the European economy to become circular and sustainable.

Another example is the collaboration between the Scottish government and Strathclyde University, which led to the birth of the Scottish Institute for Remanufacture, focused on researching circular solutions and circular transition[18]. This Public Private Partnership involves funding from both public and private sector to push the economy towards circularity.

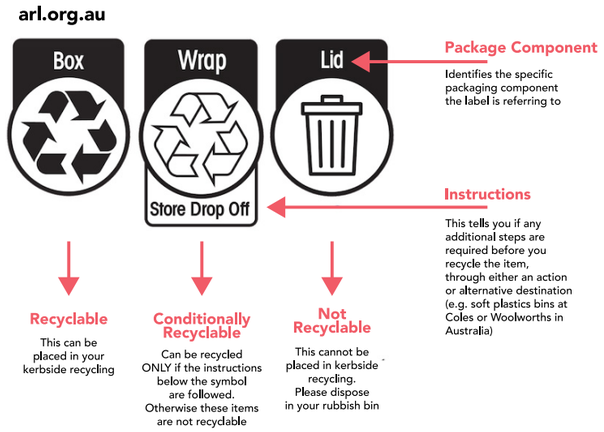
[12] Willis, K., Maureaud, C., Wilcox, C., &Hardesty, B. D. (2018). How successful are waste abatement campaigns and government policies at reducing plastic waste into the marine environment? Marine Policy, 96, 243–249. https://doi.org/10.1016/j.marpol.2017.11.037
[13] Haley, A. P., Lemieux, T. A., Piczak, M. L., Karau, S., D'Addario, A., Irvine, R. L., Beaudoin, C., Bennett, J., & Cooke, S. J. (2023). On the effectiveness of public awareness campaigns for the management of invasive species. Environmental Conservation, 50(4), 202–211. https://doi.org/10.1017/s037689292300019x
[14] Qian, J., Mills, M., Ma, H., & Turvey, S. T. (2021). Assessing the effectiveness of public awareness-raising initiatives for the Hainan gibbon Nomascus hainanus. Oryx, 56(2), 249–259. https://doi.org/10.1017/s0030605320000599
[15] Orange, R. (2016, December 19). Waste not want not: Sweden to give tax breaks for repairs. The Guardian.https://www.theguardian.com/world/2016/sep/19/waste-not-want-not-sweden-tax-breaks-repairs
[16] Zeitlin, M. (2019, August 27). Plastic bag taxes or bans have been passed in 400 cities and states. But did it reduce waste? Vox. https://www.vox.com/the-highlight/2019/8/20/20806651/plastic-bag-ban-straw-ban-tax
[17] Habre, O. (2018, May 29). New tax exemptions for eco-friendly cars. Executive Life. https://life.executive-magazine.com/life/auto/new-tax-exemptions-eco-friendly-cars
[18] Tackling root causes while acting globally, the Commission is heading in the right direction. (2020, March 11). Sitra. https://www.sitra.fi/en/articles/tackling-root-causes-while-acting-globally-the-commission-is-heading-in-the-right-direction/

## Support for SMEs

Another way to incentivize circular practices is by providing targeted support and training to local industries and Small and Medium Enterprises (SMEs). This does not need to be government-led, although government support is always desirable.

For example, initially launched in Australia and then reproduced in other countries, a campaign led by industry-partnership to push SMEs to transition to more sustainable packaging was launched in late 2022[19]. The initiative targeted 20,000 SMEs, educating them on the benefits of using the Australian Recycling Label (ARL) on their products and taking action to ameliorate the sustainability of their packaging.

The initiative also offers a series of online trainings for SMEs along with action guides, fact sheets, and toolkits. The label, which is printed on packaging provides intuitive instructions to buyers about the best way to dispose of every part of the packaging. This should make it easier for consumers to recycle, improving resource recovery and reducing contamination.




ARL explanation[20]

## Private Sector Initiatives and Best Practices

The private sector also has the potential to drive circularity in the market should it invest in the transition to circular business models and provide alternatives to business-as-usual products. This can be best achieved when the alternative is at a lower or similar price while retaining the same quality.

For example, when used tractor gearboxes malfunction and are taken out of use, they are usually discarded, with a lot of resources and energy spent to recycle the materials and manufacture new ones. Valtra, an agricultural machinery manufacturer, started remanufacturing discarded Reman gearboxes (one of their models) to save on energy and resources.

[19] Korycki, L. (2022, October 27). Industry partnership helps SMEs make switch to sustainable packaging. Waste Management Review. https://wastemanagementreview.com.au/industry-partnership-helps-smes-make-switch-to-sustainable-packaging/
[20] Initiative to help SMEs switch to sustainable packaging. (2022, November 3). https://www.sustainabilitymatters.net.au/content/waste/news/initiative-to-help-smes-switch-to-sustainable-packaging-388830918



Remanufacturing a gearbox saves 95% on energy use compared to making a new one[21]. The business model that Valtra adopted involves adding a 50% deposit upon the purchase of the gearbox, which is then reimbursed to the client when they return their discarded gearbox. Additionally, the customer also benefits from 30% to 40% cheaper prices, as well as a warranty on the remanufactured gearboxes.

Today, many SMEs or start-ups are now adopting or creating new circular business models for 2nd hand products or for extending the usage of products. These practices, which require a change of behavior and mentality from the consumers' side also, are trickling down to Lebanon too. Two good local examples are FabricAid for re-circulating used clothes through various business models and approaches to different target customer segments (e.g. selling vintage, selling low-cost second hand, establishing buy & sell shops, upcycling non-sellable clothes into fashionable ones or accessories, etc.) and Wave eBikes, which offers eBikes on monthly leasing terms, thus retaining ownership of the bikes, maintaining them to the highest quality possible, while keeping them constantly in use by different clients.

It is to be noted that providing support to start-ups and SMEs in offering or shifting to circular design and circular business models can vastly accelerate the transition to a circular economy. This could be in the form of financial support through grants or impact investment, but also other valuable guidance in specialized expertise, capacity building, know-how, digitalization skills, and more.

## Implementation of Deposit Refund Systems

Deposit Refund Systems (DRS) mandate a small additional fee on the purchase of packaged items, to be later refunded to the consumer when the package is returned. DRS can operate with single-use or reusable containers however it is preferable to adopt the latter since it entails less energy, materials, and waste footprint.

Usually DRS applies for packaged beverages or batteries, but can be extended to a larger range of products. Part of the reimbursement process can be automated through refund machines, or Reverse Vending Machines, that receive used containers and offer a refund back to consumers.

The main benefit of DRS is that it has a high rate of compliance (sometimes over 90%). Additionally, DRS reduces contamination in waste streams while cutting down the cost of material recovery. It was first introduced in Sweden in 1984 for specific materials and many other countries have followed suit, such as Germany, Denmark, Estonia, Finland, Croatia, Norway, Switzerland, Hungary, and the Czech Republic. The DRS system is often mandated by legislation, but it can also be voluntarily introduced by companies in the market. Through DRS, Norway achieved a 97% recycling rate of plastic bottles, while Germany reached a 98.4% return rate on plastic, glass and aluminum. [22]

[21] Remanufactured tractor gearboxes. (2021, March 19). Sitra. https://www.sitra.fi/en/cases/remanufactured-tractor-gearboxes/
[22] Why are countries all around the world implementing Deposit Refund Schemes? (2023, February 9). Recykal. https://recykal.com/blog/why-are-countries-all-around-the-world-implementing-deposit-refund-scheme/

# Annex 4
# Detailed Overview of the Legislative Process for new Taxes & Bans in Lebanon

From a legislative perspective, there are 3 levels of regulation that could be enforced by the Lebanese state. The highest is the law (قانون) which has two entry points; parliament or the council of ministers. A law can be proposed by a minister and if accepted by the council of ministers it is sent to the parliamentary committees for discussion. If the parliamentary council later approves the law, it is sent to the council of ministers for issuance.

The other entry point for a law is parliament. If a member of parliament proposes a law to the council of ministers and it gets approved, it is then sent to the parliamentary committees for discussion and later to the parliamentary council for approval. If approved, the law is then sent to the council of ministers for issuance.

Under a law, comes a decree (مرسوم) which is at a lower level. A decree should always be linked to an existing law, thus it is considered a child of a law. Unlike a law, a decree only passes by the council of ministers for approval (or lack of disapproval), after which it comes into effect. Once in effect, the decree is published in the national journal (الجريدة الرسميّة). Decrees are thus usually easier to establish in the country.

The lowest regulation level is the decision (قرار). A decision can be issued by a minister without going through any legislative process and is thus the easiest to release. However, since it is the lowest in terms of power, it is the least powerful in terms of implementation. A decision is still considered regulation but it needs to be lawful, i.e. supported by an existing law.

Therefore, the hierarchy of regulations in Lebanon goes as follows: Law > Decree > Decision. Additionally, a law can be implemented through the government's budget. It is then described as a budget law. The government's budget is prepared once every year and every law that might affect it must be approved by the ministry of finance. For example, the minister of environment suggests a tax incentive law and sends it to the ministry of finance for approval, after which it is put in the budgetary law. The budgetary law is included in the budget document that is presented to the parliament and the council of ministers for final approval.

Real world implementation is another issue, where complications in funding enforcement as well as political issues can get in the way of proper execution. Additionally, the slow and bureaucratic process of the Lebanese judiciary system translates into poor accountability for violators.



In the Lebanese code of law, any regulation related to environmental issues falls under **law 444.** Any law or decree introduced under law 444 becomes a chapter of the law, i.e., an operational decree.

Since the implementation of a prohibitionist regulation would be slowly enacted, harder to enforce, and most probably face backlash and resistance from different parties and stakeholders, penalizing laws (such as for example a ban on SUPs) are considered a long-term strategy. In terms of regulation, "incentivizing" laws that support circular or environmental businesses (such as the reduced custom tax on electric cars) would be more suitable as short to medium-term strategies. These laws might reduce the direct income of the Lebanese government treasury – if they include tax deductions – but will indirectly lead to reductions in other expenses such as healthcare and waste management costs. Incentivized circular businesses that prosper can also increase tax revenue in the long-term and raise the value of exports. Incentivizing laws can be implemented as part of the budget law making them easier to approve, should enough pressure and lobbying be exerted.

Since the enforcement of prohibitionist or penalizing laws in all of Lebanon constitutes a challenge, it makes sense to apply those laws to "bottlenecks" as a first step before implementing them nationwide. In practical terms, this materializes for instance in policies tackling monomers used to make plastic bags and SUPs, or through targeting SUP distributors and importers which are usually concentrated in a few locations.

# Annex 5
# **Scoring Methodology**

This Roadmap for Circular Packaging and Product Reuse in Lebanon ranks strategies from the most to the least feasible while classifying them by their expected timeline to initiate and potentially implement. The ranking is the result of 3 consultations with specialists in Circular Economy, waste management, industry, law, and environmental consulting.[23]

In the proposed Roadmap, each strategy – whether considered short, medium, or long-term —– was rated by experts and stakeholders in terms of feasibility and priority. The weighted average was calculated as follows:

## ( (Feasibility score x 2) + (Priority score) ) / 3

This allowed us to emphasize the importance of feasible solutions, since having a high priority alone could skew the score towards low-feasibility high-priority strategies, which should not be favored given the deadlock in the Lebanese political context and slow or inexistent governmental interventions. The strategies/initiatives highlighted have been presented from the highest to the lowest weighted average.

Finally, it should be noted that the scoring is based on a consultation session conducted with 12 experts or stakeholders in different fields (circular economy experts, BSOs, NGOs, corporate) and the ranking reflects their own opinions about each suggested strategy. Therefore, this ranking can only serve as general guidance, not as a complete assessment.

[23] 1st consultation with representative of the Lebanese Ministry of Environment & experts in circular economy (October 13, 2023), 2nd consultation with circular economy experts (October 30, 2023), and 3rd consultation with various experts and stakeholders including BSOs, private sector, start-ups and so on (December 6, 2023).

**Get in touch with us**

ecoconsulting.net | cewas.org

maya@ecoconsulting.net | johanna.vontoggenburg@cewas.org
mohamad@ecoconsulting.net | Talar.kokjian@cewas.org

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This policy paper was developed under the programme called "From Innovation to Creation" strengthening innovation through supporting cluster cooperation and start-up ecosystems in the South Neighbourhood countries. Through a 4-year programme financed by the European Commission, SPARK is strengthening innovation and startup ecosystems, together with implementing partners in Palestine, Jordan, Lebanon and Tunisia.