



# The Punjab Gazette

PUBLISHED BY AUTHORITY

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LAHORE WEDNESDAY APRIL 19, 2023

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**GOVERNMENT OF THE PUNJAB  
LAW AND PARLIAMENTARY AFFAIRS DEPARTMENT**

**NOTIFICATION  
(71 of 2023)**

**19 APRIL 2023**

Notification No. SOG/EPD/7-26/2013(P-II), dated 06.04.2023 issued by the Environment Protection Department, is hereby published in the Punjab Gazette (Extraordinary) for general information:

"Government of the Punjab  
Environment Protection Department  
Dated 06<sup>th</sup> April, 2023

### NOTIFICATION

No.SOG/EPD/7-26/2013(P-II): In exercise of the powers conferred under clause (b) of sub-section (1) of section 4 of the Punjab Environmental Protection Act, 1997 (XXXIV) of 1997), the Environmental Protection Council has approved the Plastic Management Strategy, Punjab.

#### 1. Short Title and Commencement:

- i. This strategy may be called as **the Plastic Management Strategy, Punjab.**
- ii. This shall be effective from the date of their publication in the official gazette of Government of the Punjab, and shall remain effective until specifically withdrawn.

#### 2. Definitions: (1) In this strategy, unless there is anything repugnant to the subject or context:

- a) "Act" means the Punjab Environmental Protection Act, 1997 (XXXIV of 1997);
- b) "Action Plan" means the action plan as given in Schedule – II of this strategy.
- c) "Banned Single-Use Plastics" means any single-use plastics as given in Schedule II of this strategy;
- d) "Department" means Environment Protection Department (EPD), Government of the Punjab;
- e) "Extended Producer's Responsibility" means a significant responsibility of plastics importers, producers and brand owners to ensure postconsumer environmentally sound management of plastic products (e.g. collection back, recycling or disposal of plastic until the end of their lives
- f) "Government" means Government of the Punjab;
- g) "Province" means the Province of Punjab;
- h) "Single-Use Plastics" means such plastic items or products or packaging intended to be used once for shorter period of time before being disposed of or thrown away.

#### 3. Plastics: Boon or Burden

The plastic industry is recognized as one of the fastest emerging industries that cater to packaging, automobile, home appliances and construction needs. Pakistan Plastic Manufacturing Association states that there are approximately 11,000 establishments (plastic manufacturing units including recycling units in formal and informal sector) dealing with plastics in Pakistan and 65% of them are in Punjab. Pakistan earned US\$386 million with the export of plastic during July-May (2021-22) as compared to \$271 million during July-May (2020-21), showing an increase of 42.30%.

There are seven types of plastics i.e. Polyethylene Terephthalate (PET), High-Density Polyethylene (HDPE), Low-Density Polyethylene (LDPE), Polyvinyl Chloride (PVC), Polypropylene (PP), Polystyrene (PS) and others. These have their typical applications ranging from drinking water bottles, toys, appliances, food packaging, and cutlery to surgical devices etc.

Punjab has one of the highest demands for single-use plastic and other plastic-based products (estimated to be 1.3 million tons/annum) for daily life in the form of LDPE bags and PET bottles. Most of this plastic ends up in dumpsites or litters the streets except PET bottles. A total of 15.348 million tons of solid waste is generated per year in Punjab, out of which 1.22 million tons is plastic waste. The open burning of plastics increases air pollution is causing respiratory diseases. Burning plastic releases various harmful substances and chemicals into the air, such as dioxins, furans, hazardous halogens etc.

The plastic pollution has multiple effects on the human even causing metabolism and neurological disorders. Plastics have even entered in our food chain. Plastic production contributes to 3.4% of global greenhouse emissions<sup>1</sup>. The open burning of plastics, increases air pollution, causing respiratory diseases. Further, such burning of plastics releases various harmful substances and chemicals into the air, such as dioxins, furans, hazardous halogens, PCBs, and mercury. The Volatile Organic Compound (VOC) emission profile for plastics reveals a higher amount of VOC emissions coming from softer plastic polymers such as PS and PVC. The additives used in plastic packaging and the residual monomers pose significant public health risks as well. Globally, habitat of aquatic life is especially polluted due to plastic pollution and more than 800 species are affected. The current figure of land-based aquatic plastic pollution stand at more than 11 million tons annually, which will be tripled by 2040, according to United Nations.

About 40% of total plastic products are made for single use, which results in extensive waste generation, and also entails extensive socio-economic cost of collection and disposal. The informal sector mostly handles plastic waste, which works in dismal working conditions without hygienic conditions, personal protective equipment and protection under labor laws. The main focus of the plastic recycling industry is to recycle PET bottles; however, now, mixed plastic waste is also being recycled. The plastic recycling rate in Punjab is merely 19.2%, which is mainly focused in big cities like Lahore, Sialkot, Bahawalpur, Rawalpindi, and Gujrat. The poor communities living in urban slums are particularly vulnerable and exposed to plastic pollution where collection of plastic waste remains very low. The plastic litter chokes the urban sewerage infrastructure, increasing the risk of urban flooding and the operation and maintenance cost of drainage manifold, which is likely to further increase in future.

<sup>1</sup> CIEL. (2019). Plastic & Climate: The hidden costs of a plastic planet



The province lacks a comprehensive framework to manage these issue in an environmentally, socially, and economically sound way. Globally efforts are also fostering to end plastic pollution. In 2022, during United Nations Environment Assembly session in Nairobi, the states have pledged to reach at an international legally binding agreement by 2024 to end plastic pollution. Hence this strategy has been devised to keep pace with the country's global commitments towards environmental sustainability and reducing plastic pollution. The strategy is based upon 5 pillars/ strategies and 22 targets.

#### **4. Aims and Objectives**

The strategy aims at environmental protection, reducing aquatic/ marine plastic litter by transforming the way plastic products are designed, produced, used, upcycled, and recycled through leapfrogging towards a circular plastic economy in Punjab.

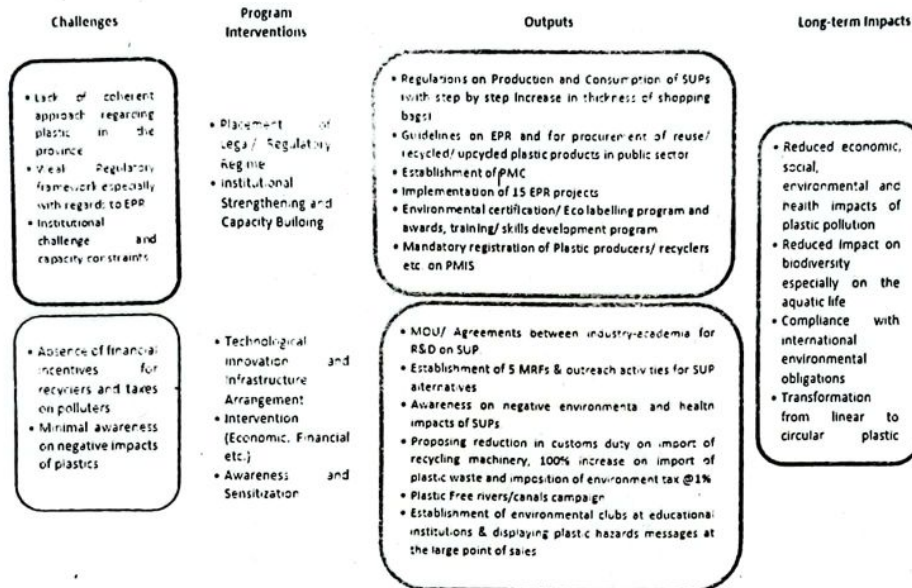
#### **5. Approaches and Principles**

The strategy has been developed after consultation with stakeholders including relevant government departments, plastic manufactures, importers, recyclers, academia and research institutions, and environmental and policy experts.

The strategy suggests implementable actions and interventions for plastic management in the province based on reduce, reuse, and recycle (3Rs) principles.

A three-phase Action Plan up to 2030 is proposed for implementation of the strategy i.e. Short-term (up till FY-2025); Medium-term (up till FY 2027); and Long-term (up till FY 2030).

Through this strategy, some Single-use plastics are proposed to be out rightly banned for the production and consumption as given in the Schedule – II. Further, the thickness of Single-use plastic shopping bag is to be fixed as 75 micron at the start, which will be subsequently enhanced to 100 micron until FY 2027 and then to 125 micron up till FY 2030. Thus making transition towards a circular economy for plastics in the Punjab. The Strategy also proposes some alternatives to SUPs as enunciated in Schedule – III.

**Theory of Change Diagram for Plastic Management Strategy****6. Pillars of Strategy**

The strategy revolves around following five pillars/strategies:

- Induction of Plastics Regulatory Regime
- Technological Innovation and Recycling Infrastructure
- Economic Incentives and Levies
- Institutional Capacity Building
- Citizens Engagement & Awareness

**7. Targets of Strategy**

On the basis of above pillars/strategies, following targets have been drawn:

#	Pillars	Targets
1	Induction of Plastics Regulatory Regime	1. Notify Regulations on Production and Consumption of Single-use Plastics (SUPs) (includes increase in thickness of shopping bags > 75 micron and other SUPs)
		.....increase in thickness of shopping bags > 100 micron and other SUPs)
		.....increase in thickness of shopping bags > 125 micron and other SUPs)
		2. Develop guidelines on Extended Producer Responsibility (EPR) projects

#	Pillars	Targets
		3. Introduce mandatory registration and annual reporting, through rules/regulations, of plastic producers, collectors, recyclers, and large consumers
		4. Devise guidelines for procurement of reuse/ recycled/ upcycled plastic products in public sector
2	Technological Innovation and Recycling Infrastructure	5. Hold annual seminars etc. on technologies to recycle the single-layered plastic packaging
		6. Sign MOU/Agreements (through HED) with industry-academia linkages (through Office of) for Research & Development on SUP alternatives, additives and eco-friendly plastic packaging redesigns and develop 4 projects (e.g. natural/ single color PET bottles, mixing of recycled PET (rPET) with virgin plastic material, use of additives, use of PET in Polyester industry etc.). Labelling to certify the quality of the recycled content will be done.
		7. Conduct outreach activities for the production and availability of the selected SUP alternatives (bamboo sticks, etc.)
		8. Pilot 4 demonstration projects for showcasing the secondary and tertiary recycling
		9. Establish at least 5 Integrated Plastic Material Recovery Facilities (MRFs) in Punjab
3	Economic Incentives and Levies	10. Implementation of at least 15 EPR projects (initiating with larger turn over organizations in accordance with the EPR guidelines)
		11. Propose reduction in customs duty on the import of state-of-the-art plastic recycling machinery
		12. Propose environment tax @1% of the cost of SUP products on the manufacturer
		13. Increase 100 % customs duty on import of plastic waste
		14. Initiate environmental certification/Eco labelling program and awards for plastic manufacturers working on the circular plastic economy in Punjab



#	Pillars	Targets
4	<b>Institutional Capacity Building</b>	15. Establish a PMC for enforcement, institutional strengthening and EPD Capacity Building
		16. Initiate programs in collaboration with relevant educational/training institutions for plastic stakeholders
		17. Develop an electronic database and management information system for the plastic manufacturers, importers, recyclers,
5	<b>Citizens Engagement &amp; Awareness</b>	18. Conduct awareness campaigns on: a) national and international obligations on Plastics; & b) negative environmental and health impacts of SUPs
		19. Disseminate all the legal frameworks including guidelines etc. related to plastics
		20. Plastic Free rivers/canals campaign
		21. Establishment of environmental clubs at educational institutions
		22. Displaying plastic hazards messages at the large point of sales

Targets vis-à-vis timelines are given in Schedule – I. This schedule also contains the targets with regards to respective roles of government departments/organizations.

## 8. Implementation Mechanism

### 8.1 Establishment of Provincial Steering Committee

Composition of the Committee is as following:

1.	Chief Secretary, Punjab	Chairperson
2.	Secretary, EPD Punjab	Secretary
3.	Secretary, Local Government & Community Development	Member
4.	Secretary, Industries Commerce & Investment and Skills Department	Member
5.	Secretary, Information & Culture Department	Member
6.	Secretary, Primary & Secondary Health Department	Member
7.	Secretary, School Education Department	Member
8.	Secretary, Special Education Department	Member
9.	Secretary, Agriculture Department	Member

10.	Secretary, Housing Urban Development & Public Health Engineering Department	Member
11.	Two members each from the Academia and Plastic Manufacturing Associations	

Scope and mandate of the Provincial Steering Committee will be monitoring the implementation of Plastics Management Strategy. The committee shall formulate its own procedures for its functioning. The Committee is to act as a single platform wherein all the issues arising during the implementation are discussed by all the stakeholders as well as development of regulations on production and consumption of SUPs.

### **8.2 Establishment of a Plastic Management Cell**

A Plastic Management Cell (PMC) will be established in EPD to manage and implement this Strategy. The cell will have an adequate resource both in terms of human as well as equipment to carry out the implementation of the strategy and its subsequent interventions. Further, legal powers would also be given to Environmental Protection Department to impose penalties to the violators.

### **8.3 Compulsory Registration**

The persons or entities dealing with the plastics shall have to be registered with the EPD through plastic management information system which will be development in due course.

### **8.4 Setting-up of a Plastic Management Information System**

An electronic database and management information system shall be established for keeping track of plastics production, recycling, monitoring, effectiveness of implementation, better policy making and an overall enhanced oversight and control of plastics.

### **8.5 Mandatory EPR**

A system will be introduced to define the principle of 'Extended Producer Responsibility' in collaboration with plastic producers. It is intended to balance production of plastics, its use and re-use along with channelizing plastic waste.



## 8.6 Awareness and Sensitization

Without imparting awareness among the populace on negative environmental and health effects of Plastics, the likelihood to obtain behavioural changes is minimal. Therefore, detailed activities have been charted out. The specific communication objectives will be:

- To engage policymakers to make necessary changes in policies and laws relating to the plastic management;
- To educate stakeholders in the plastic production value chain on EPR, recyclable alternatives/ innovative plastic management technologies and risks if they go on with a business-as-usual approach; and
- To raise awareness in consumers and communities on the negative environmental, social, economic and health impacts of plastics pollution.

The proposed awareness raising and communication activities are also given in Schedule – IV.

**SECRETARY**  
GOVERNMENT OF THE PUNJAB  
ENVIRONMENT PROTECTION DEPARTMENT"

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**(AHMAD ALI KAMBOH)**  
**SECRETARY**  
Government of the Punjab  
Law and Parliamentary Affairs Department

## Schedule - I

## Targets vis-à-vis timelines for implementation of Strategy

## Pillar/Strategy 1: Induction of Plastics Regulatory Regime

Targets	Role	Short Term (up till FY 2025)	Medium Term (up till FY 2027)	Long Term (up till FY 2030)
1. Notify Regulations on Production and Consumption of SUPs (includes increase in thickness of shopping bags > 75 micron and other SUPs)	EPD	√		
.....increase in thickness of shopping bags > 100 micron and other SUPs)	EPD		√	
.....increase in thickness of shopping bags > 125 micron and other SUPs)	EPD			√
2. Develop guidelines on Extended Producer Responsibility (EPR) projects	EPD	√		
3. Introduce mandatory registration and annual reporting, through rules/regulations, of plastic producers, collectors, recyclers, and large consumers	EPD	√		
4. Devise guidelines for procurement of reuse/ recycled/ upcycled plastic products in public sector	EPD		√	

## Pillar/Strategy 2

## Technological Innovation and Recycling Infrastructure

Targets	Role	Short Term (up till FY 2025)	Medium Term (up till FY 2027)	Long Term (up till FY 2030)
5. Hold annual seminars etc. on technologies to recycle the single-layered plastic packaging	EPD		√	
6. Sign MOU/Agreements (through HED) with industry-academia linkages (through Office of) for R&D on SUP alternatives and eco-friendly plastic packaging redesigns and develop 4 projects (e.g. natural/ single color PET bottles, mixing of rPET with virgin plastic material, use of additives, use of PET in Polyester industry etc.).	EPD/HED	√		
7. Conduct outreach activities for the production and availability of the selected SUP alternatives (bamboo sticks, etc.)	EPD	√		

Targets	Role	Short Term (up till FY 2025)	Medium Term (up till FY 2027)	Long Term (up till FY 2030)
8. Pilot 4 demonstration projects for showcasing the secondary and tertiary recycling	IC&ID/ EPD (ETC)		√	
9. Establish at least 5 Integrated Plastic Material Recovery Facilities (MRFs) in Punjab	LG&CD/ WMCs			√

**Pillar/Strategy 3****Economic Incentives and Levies**

Targets	Role	Short Term (up till FY 2025)	Medium Term (up till FY 2027)	Long Term (up till FY 2030)
10. Implementation of at least 15 EPR projects up till FY 2030 (initiating with larger turn over organizations in accordance with the guidelines)	Organizations			√
11. Propose reduction in customs duty on the import of state-of-the-art plastic recycling machinery	FBR through MOCC	√		
12. Propose environment tax @1% of the cost of SUP products on the manufacturer	FBR through MOCC	√		
13. Increase 100 % customs duty on import of plastic waste	FBR through MOCC	√		
14. Initiate environmental certification/Eco labelling program and awards for plastic manufacturers working on the circular plastic economy in Punjab	EPD	√		

**Pillar/Strategy 4****Institutional Capacity Building**

Targets	Role	Short Term (up till FY 2025)	Medium Term (up till FY 2027)	Long Term (up till FY 2030)
15. Establish a PMC for enforcement, institutional strengthening and EPD Capacity Building	EPD	√		
16. Initiate programs in collaboration with relevant educational/training institutions for plastic stakeholders	EPD	√		



17. Develop an electronic database and management information system for the plastic manufacturers, importers, recyclers etc.	EPD	√		
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**Pillar/Strategy 5****Citizens Engagement & Awareness**

Targets	Role	Short Term (up till FY 2025)	Medium Term (up till FY 2027)	Long Term (up till FY 2030)
18. Conduct awareness campaign on: national and international obligations on Plastics; & negative environmental and health impacts of SUPs	EPD	√		
19. Disseminate all the legal frameworks including guidelines etc. related to plastics	EPD		√	
20. Plastic Free rivers/canals campaign	EPD	√		
21. Establishment of environmental clubs at public as well as private educational institutions	EPD		√	
22. Displaying plastic hazards messages at the large point of sales	Entities		√	

**Schedule – II****List of Banned Single-Use Plastics**

- i. Shopping bags having thickness less than 75 micron
- ii. Ear buds with plastic sticks
- iii. Plastic sticks for balloons
- iv. Plastic flags
- v. Candy sticks
- vi. Ice-cream sticks
- vii. Disposable Plates, Cups & Glasses made either from Polystyrene or any other plastics including paper cups with internal plastic lining
- viii. Cutlery such as Forks, Spoons, Knives, Straw, Trays, Stirrers, etc.
- ix. Wrapping or Packing Films around sweet boxes etc.
- x. Invitation Cards
- xi. Disposal to-go- Food Boxes
- xii. Cigarette Packets
- xiii. Plastic or PVC banners less than 80 microns
- xiv. **Multi-Layered Packaging**
- xv. Any other product or Packaging as notified by the Government from time-to-time in the official gazette.

**Schedule – III**  
**SUP Alternatives**

SUP Items	Material	Uses	Alternative	Reasons for adoption
1. Shopping Bags	PE (Polyethylene)	Shopping	i. PCR Mix (Post-Consumer Recycled) material	Reduce of Import of Virgin Chemical/Polymer Reduce Plastic Waste
			ii. BD (Biodegradable*) PE	Reuse, Reduce Plastic Waste, Recycle
			iii. NWPP (Non-Woven Polypropylene)	
			iv. Polyester	Reuse (having a longer life), Reduce Plastic Waste
			v. Cotton/Nylon	Reuse, Reduce Plastic Waste
			vi. Paper	Reuse, Reduce Plastic waste, Recycle
2. Bottles	PET (Polyethylene Terephthalate)	Beverages, Bottles	i. Recycled PET	Reuse, Reduce Plastic waste as well as import of virgin chemical/polymer, Recycle
			ii. Glass	Reuse, Reduce Plastic waste as well as import of virgin chemical/polymer, Recycle
3. Earbuds sticks	PVC (Poly Vinyl Chloride), PC (polycarbonate) or ABS (Acrylonitrile Butadiene Styrene)	Ear Cleaning	Wood/Bamboo	Reduce plastic waste and import of virgin chemical/polymer
4. Balloons Sticks, Flags sticks	HDPE (High Density Polyethylene)	Playing / Decoration	Wood	
5. Sweets, Ice Cream sticks	PP (Polypropylene)	Holding	Eatable Starch-Stick	



SUP Items	Material	Uses	Alternative	Reasons for adoption
6. Ceiling Sheets	PS (Polystyrene)	Decoration	Gypsum Sheet	Reduce plastic waste and import of virgin chemical/polymer
7. Plates, Trays	PS	Food	Reusable, BD*, Glass, FG SS (Food Grade Stainless Steel) Cutlery, Rice Husk	Reduce plastic waste, Reuse and reduce resource depletion
8. Forks, Spoons, Knives	PP	Food		
9. Straws, Stirrers	PP/PS	Drinks	Paper/Bamboo straw/	Reduce plastic waste, Reuse and reduce resource depletion
10. Cups, Glasses	PP/PS	Drinks	Reusable cups, Glass, Ceramics, FG SS	Reduce plastic waste, Reuse and reduce resource depletion
11. Wrapping films,	LDPE (Low Density Polyethylene)	Boxes	Paper	Reduce plastic waste and import of virgin chemical/polymer
12. Invitation cards, Banners	PVC	Invitation	Paper/Card and Cloth banners	Reduce plastic waste and import of virgin chemical/polymer
13. Cigarette Packets	Others	Packets	Paper/Card	Reduce plastic waste and import of virgin chemical/polymer
14. Multi-Layer Packaging	Polymers, paperboard, and aluminium	Milk or foods	Single Layer PP/HDPE	Reduce SUP waste and import of virgin chemical/polymer

\* subject to the outcome of R&D of industry-academia linkage

**Schedule – III****Communication and Awareness Raising Actions and Activities**

<b>Targets</b>	<b>Proposed Outputs/ Activities</b>
Awareness campaign on national and international obligations on Plastics; and negative environmental and health impacts of SUPs	<ol style="list-style-type: none"> <li>1. Brochure/ leaflet</li> <li>2. Regular social media posts/ website updates</li> <li>3. Workshops at Chambers of Commerce</li> </ol>
Disseminate all the legal frameworks including guidelines etc. related to plastics	<ol style="list-style-type: none"> <li>1. Policy briefs</li> <li>2. Printing and dispatch of relevant guidelines to stakeholders</li> <li>3. Annual workshop</li> </ol>
Plastic Free rivers/canals campaign	<ol style="list-style-type: none"> <li>1. Regular cleanliness drives for trapping and removing plastic from rivers/ canals of the province through multi-stakeholder participation</li> <li>2. Implementation of EPR projects for reducing leakage of plastic into rivers/ canals</li> <li>3. Collaboration with academia for data collection regarding research on plastic hazards in water bodies and other aspects of the plastic hazards</li> </ol>
Establishment of environmental clubs at educational institutions	<ol style="list-style-type: none"> <li>1. Awareness sessions in educational institutions/ schools</li> <li>2. Development of manuals for 3R behaviors among youth</li> <li>3. Collective action on plastic waste through developing purpose-specific environmental clubs in educational institutions</li> </ol>
Displaying plastic hazards messages at the large point of sales	Develop and disseminate tailored public service messages in collaboration with plastic producers/ large consumers