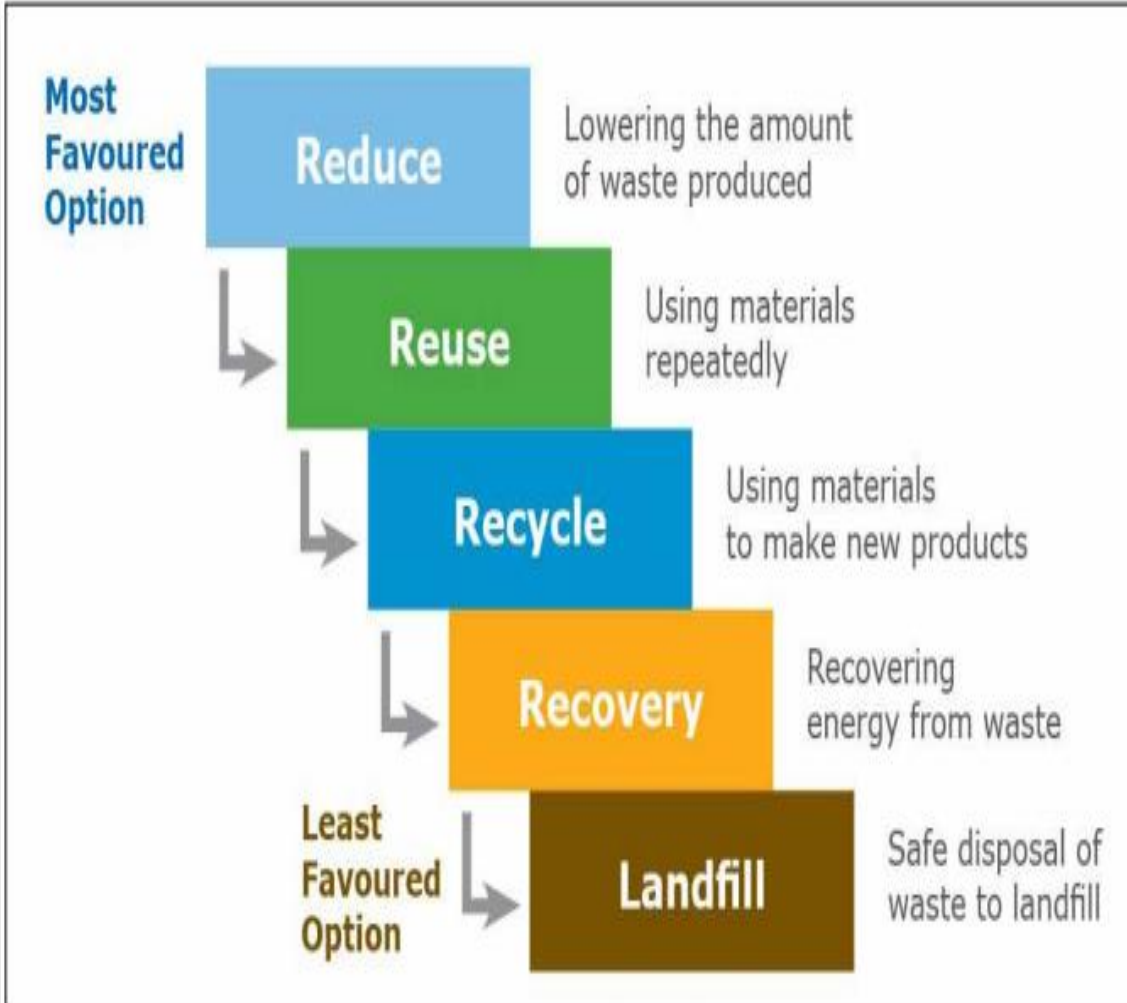




Plastic Waste Management in Nepal



**Centre for Green Economy Development Nepal (CGED Nepal),
Baluwatar, Kathmandu**

Outline

- Objectives and Methodology
- Introduction
- Waste Generation and Share of Plastic
- Plastic Industries in Nepal
- Type of Plastics
- Plastic Characterization
- Efforts made so far
 - Policy and Legislative aspects
 - Institutional aspects
 - Programmes
- Policies/action plans of other countries
- Goal and Objectives of the Policy
- Thematic Policies and Strategies
- Institutional Arrangement
- Legal Provision



Objectives and Methodology

Objectives

- Prepare baseline of plastic in Nepal
- Develop a draft national plastic management policy

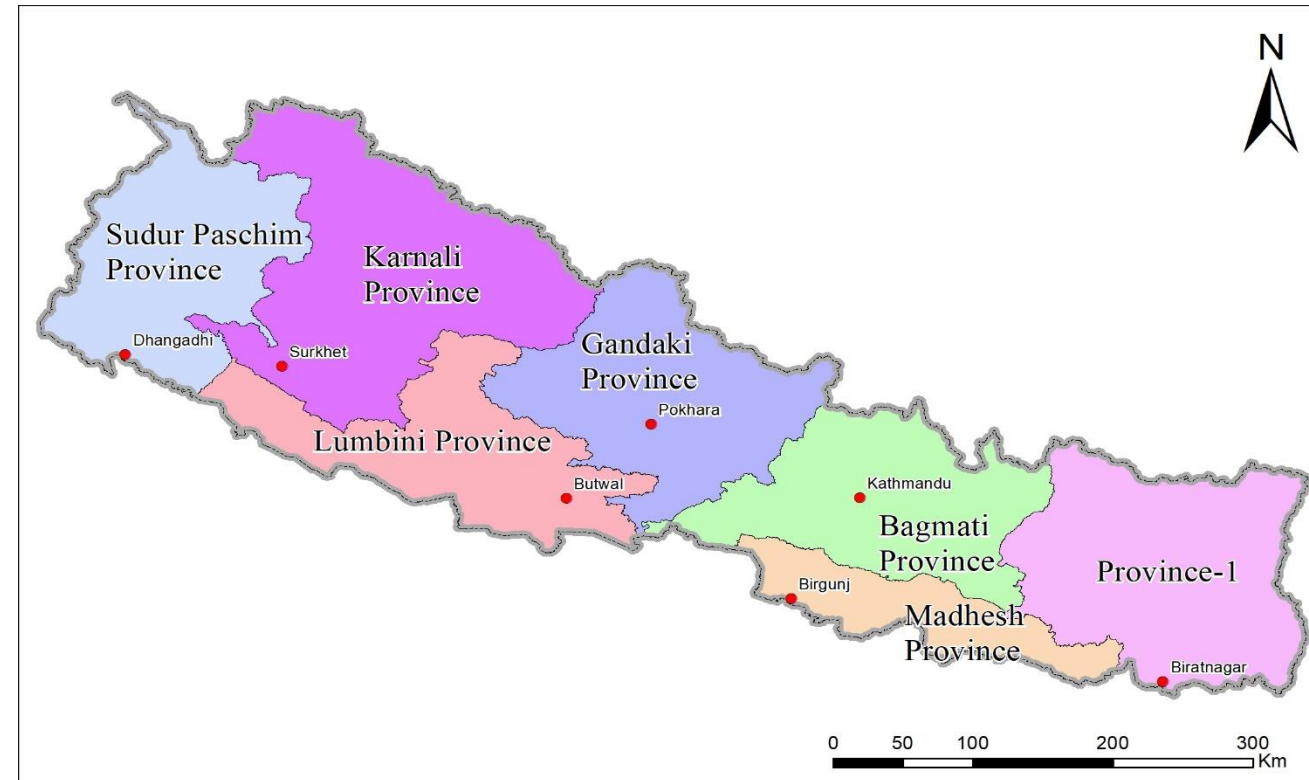
Methodology

- Literature review
- Stakeholder consultation (10)
- Industry survey (141)
- Focus group discussions (28)
- Key informants interview

11/28/2023

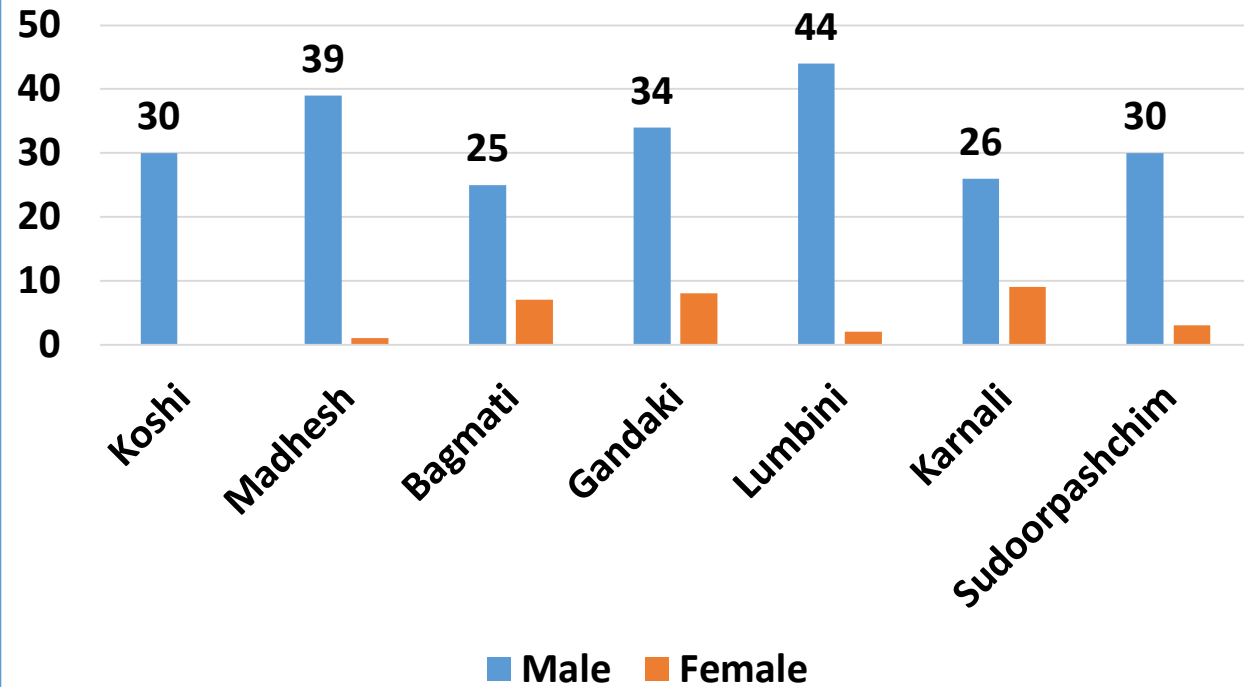
Study sites

- Biratnagar-Duhabi
- Birgunj-Simara
- Kathmandu valley
- Pokhara
- Butwal-Bhairahawa
- Birendranagar
- Dhangadhi-Attariya

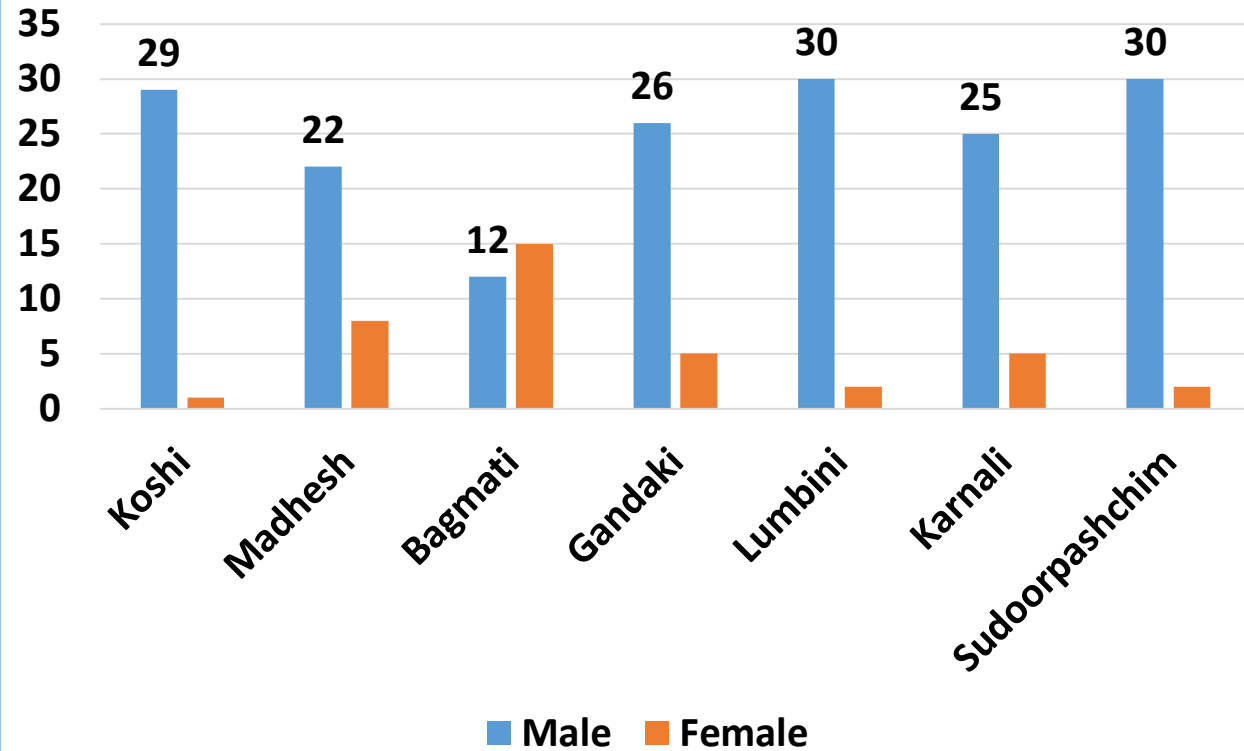


Gender Disaggregated Data

Disaggregated Data on Participation in Consultation Workshop

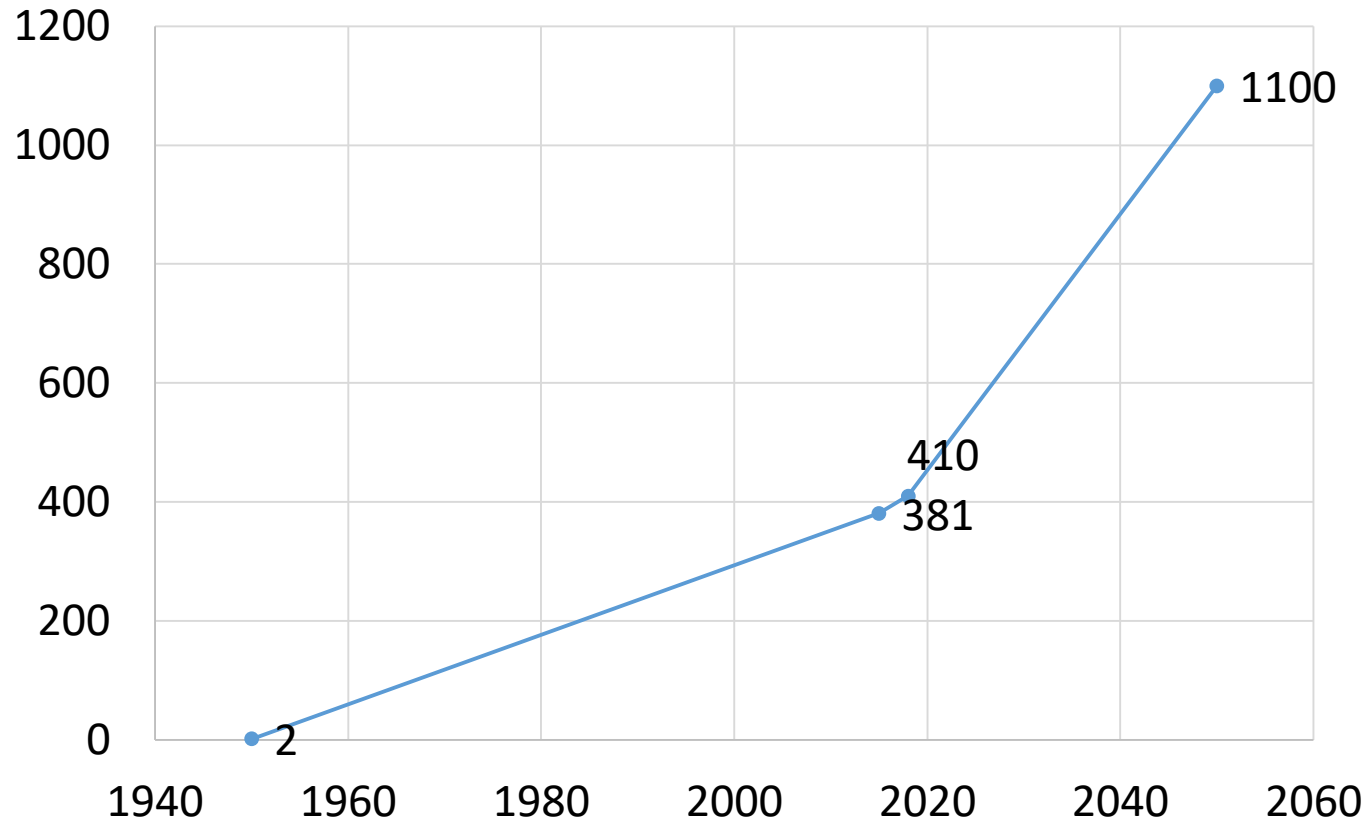


Disaggregated Data on Participation in FGDs

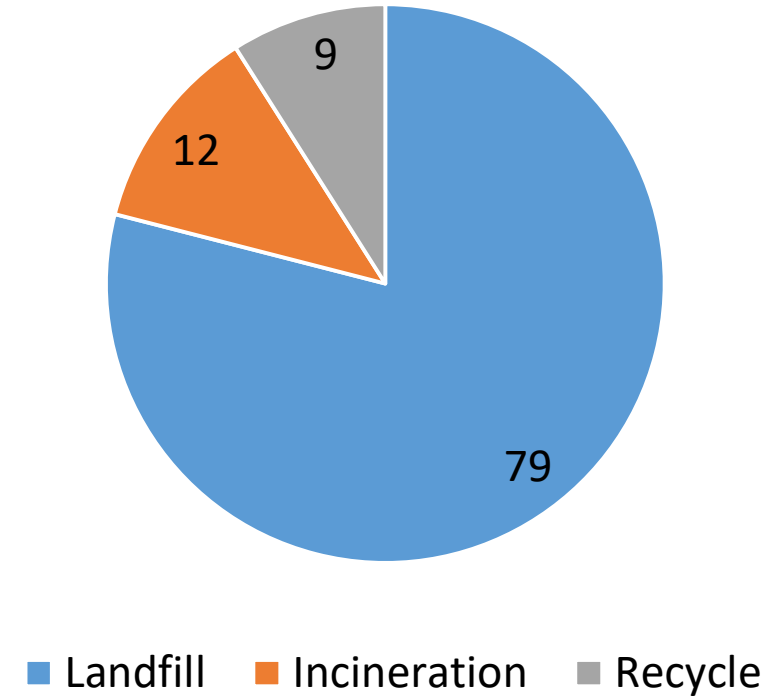


Background

Plastic Production (in million tons)



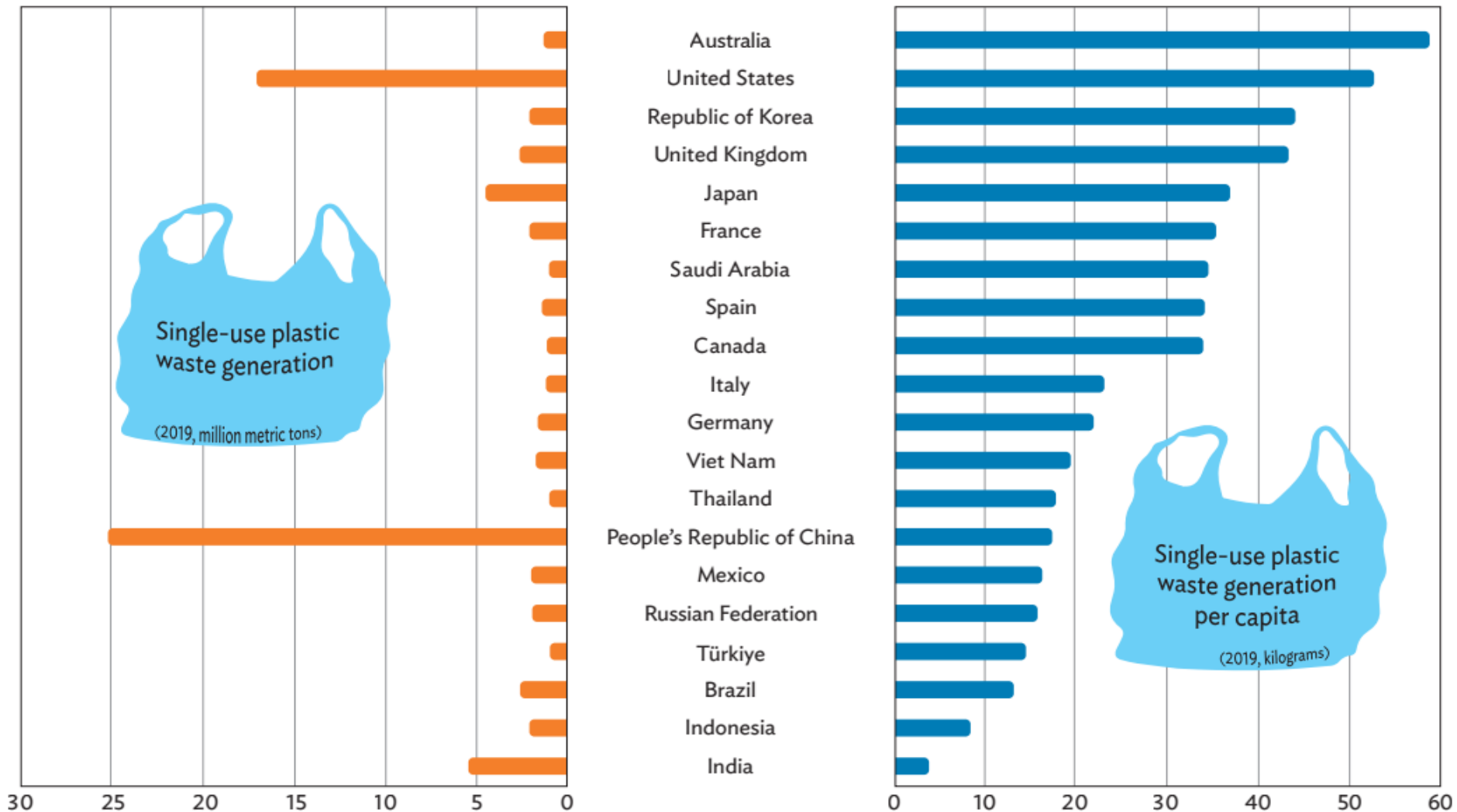
Plastic Management at Global Level



- In 2021, the global plastic market was worth approximately USD 600 billion (Merkl and Charles, 2022).
- In 2019, plastics generated 1.8 billion tons of greenhouse gas emissions, with 90% coming from their production and conversion from fossil fuels (OECD, 2022).
- In 1 minute, around 1 million plastic bottles sold

Background

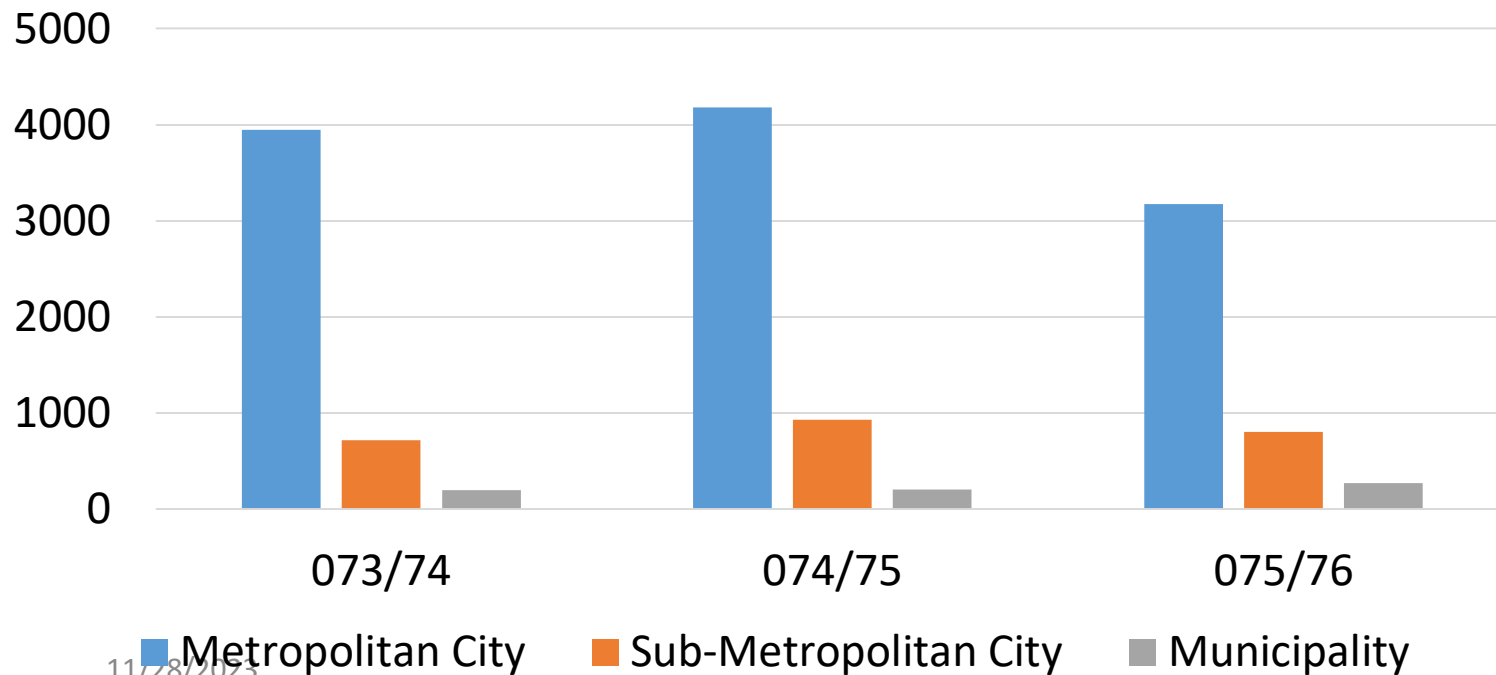
Top Countries Generating Single-Use Plastic Waste, Total and Per Capita, 2019



Background

- Around 4,900 tons of waste generated daily in Nepal
- Per year 165,000 tons of plastic products manufactured in Nepal
- 99 municipalities have solid waste management strategies/guidelines

Annual Waste Generation in Nepal (in M Ton)

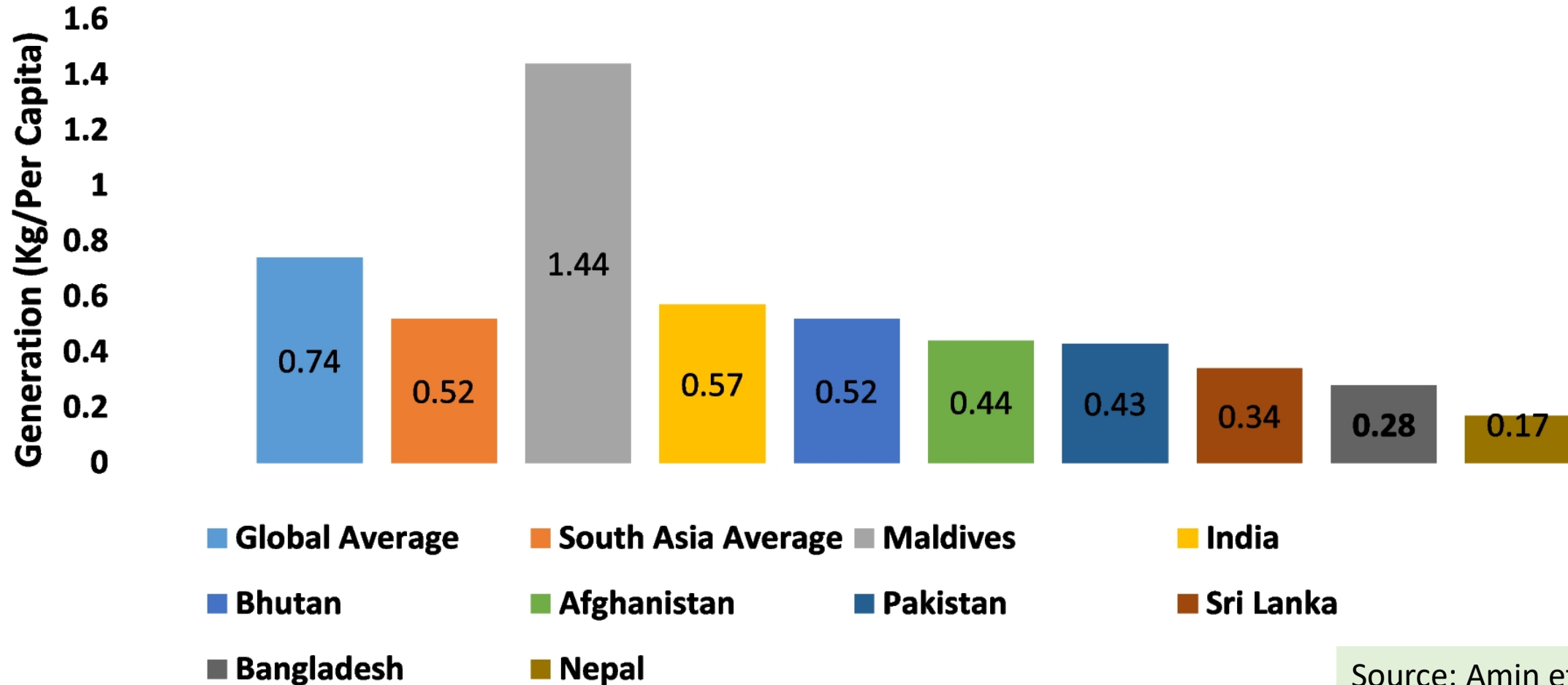


WASTE MANAGEMENT BASELINE SURVEY OF NEPAL 2020



Government of Nepal
National Planning Commission
Central Bureau of Statistics
Thapathali, Kathmandu Nepal

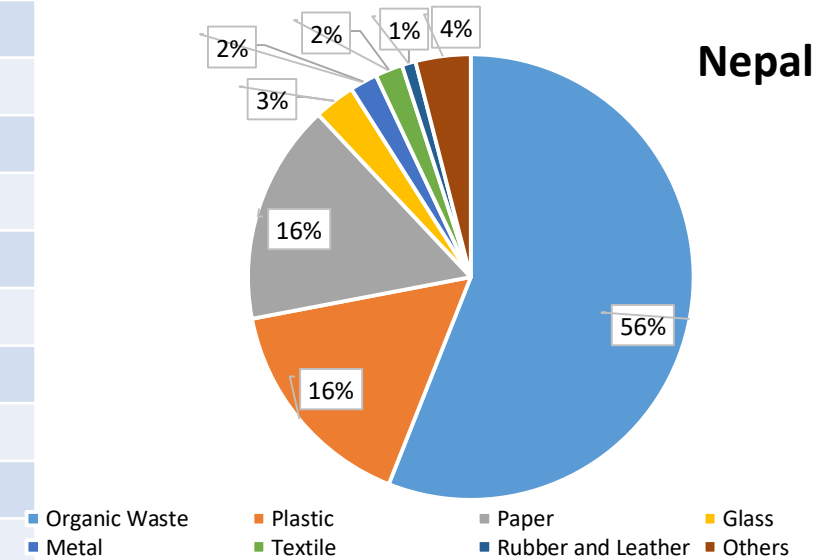
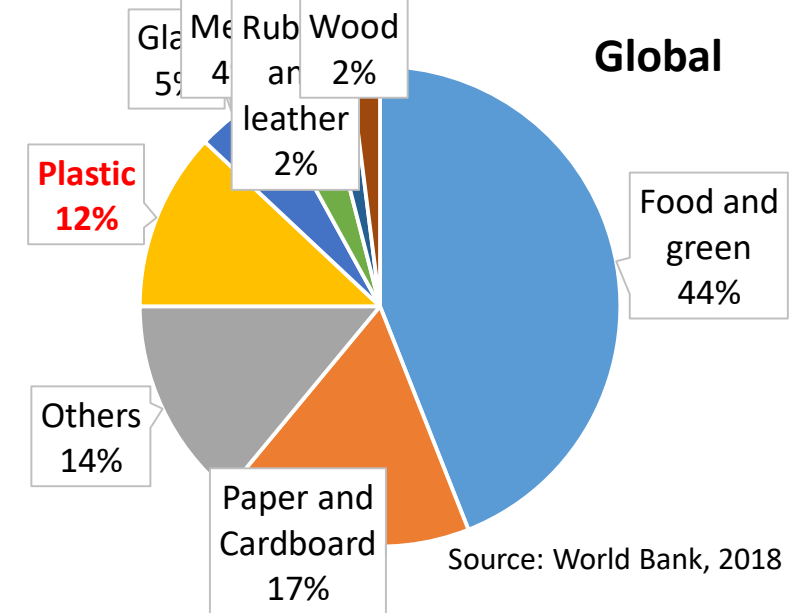
Waste Generation



- By 2030, the world is expected to generate 2.59 billion tons of waste annually and is expected to reach 3.40 billion tons by 2050 (OECD, 2022).
- Nepal generates approximately 7 lakh ton of waste per annum (World Bank, 2020).

Share of Plastic

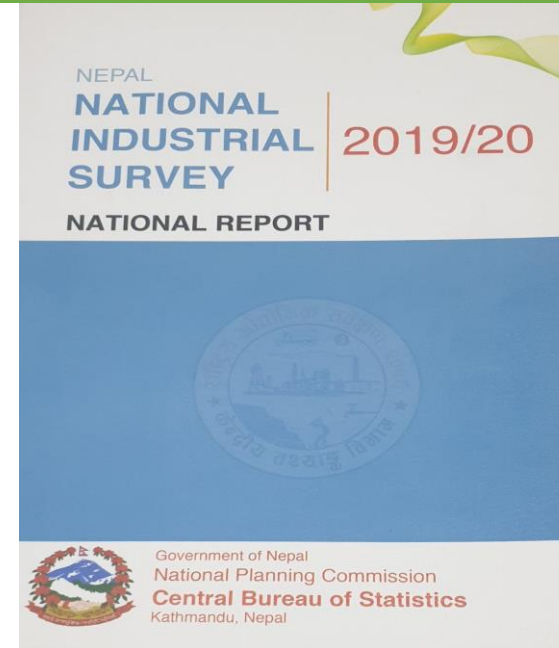
SN	Municipality	Waste generation /day (MT)	Share of Plastics (%)	Source
1	Bharatpur	59.12	10.70	ADB, 2013
2	Biratnagar	58.37	14.03	ADB, 2013
3	Birendranagar	9.12	11.06	ADB, 2013
4	Birgunj	49	20.00	BMC, 2019
5	Butwal	53	8.82	ADB, 2013
6	Devdaha	20.15	16.49	IBN, 2019, Pathak, 2017
7	Dhangadhi	31	19.00	ADB, 2017a
8	Duhabi	6.57	12.80	Pathak, 2017
9	Godawari	30.43	10.00	ADB, 2017
10	Inaruwa	11.48	5.79	ADB, 2013
11	Itahari	25.12	12.56	ADB, 2013
12	Jitpur-Simara	15	19.00	Adhikari and Dahal, 2018
13	Kathmandu	600	15.96	ADB, 2013
14	Lalitpur	126	16.00	MoUD, 2016
15	Pokhara	188	19.91	World Bank, 2020
16	Sainamaina	21.01	10.21	IBN, 2019, Pathak, 2017
17	Siddharthanagar	14.04	16.54	ADB, 2013
18	Tilottama	28	23.00	UNDP, 2022
	Average	74.75	14.55	



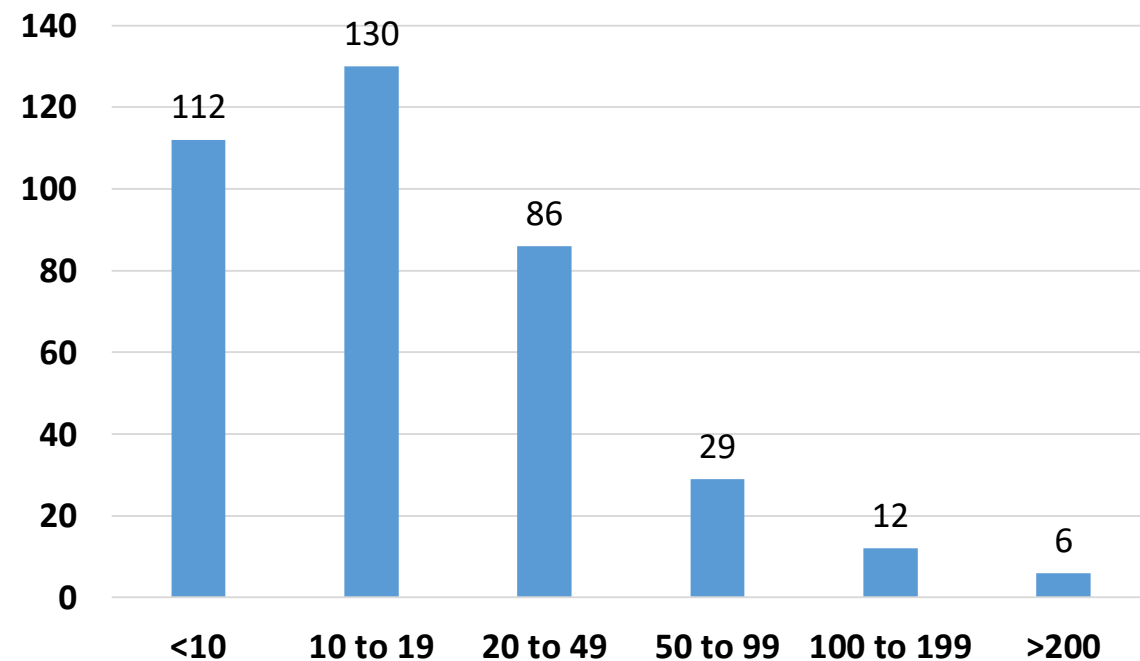
Source: Anderzen & Brees, 2003

Plastic Industries

- 375 plastic industries in Nepal
- Around 37 billion investment in plastic industries
- Plastic industries has provided employment to 10,784 persons

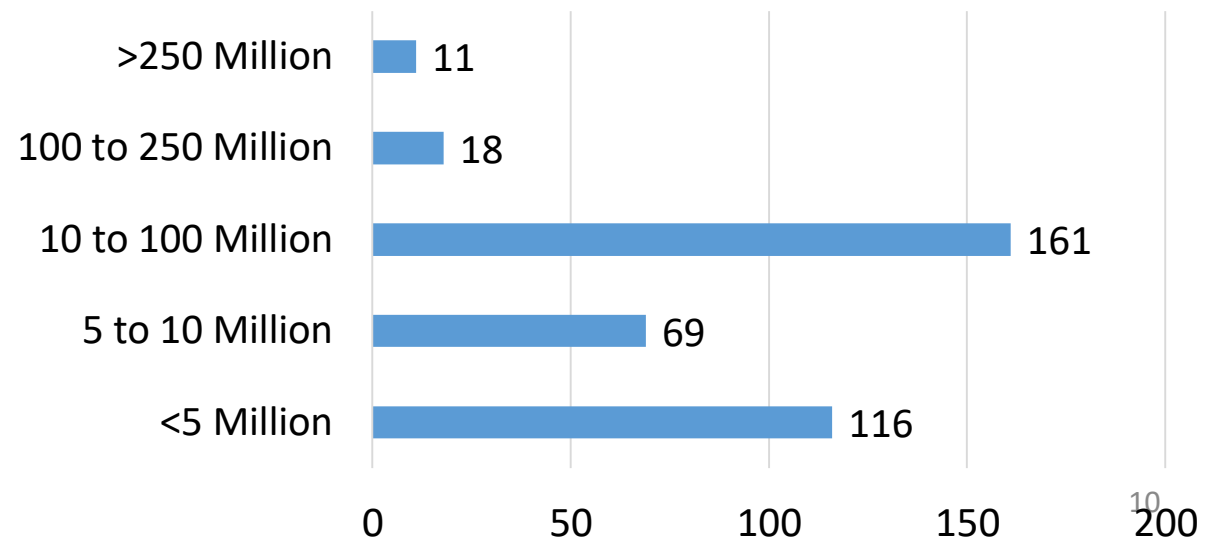


Number of Plastic Industries based on Employment



11/28/2023

Number of Plastic Industries Based on Investment



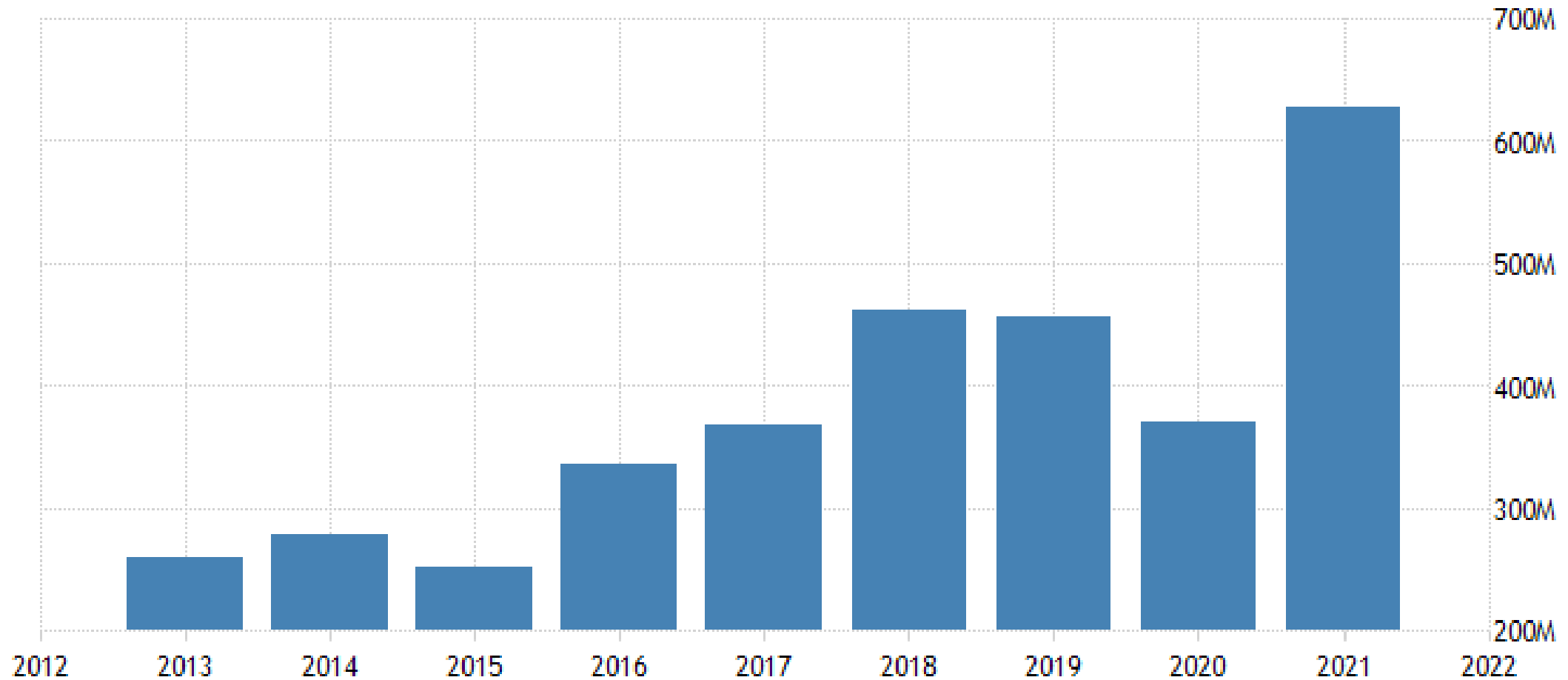
Plastic Industries

SN	Province	Districts	No. of Plastic Industries	No. of Industries Surveyed
1	Koshi	Morang, Sunsari	293	30
2	Madhesh	Bara, Parsa	152	27
3	Bagmati	Bhaktapur, Chitwan, Kathmandu and Lalitpur	293	34
4	Gandaki	Kaski	10	10
5	Lumbini	Rupandehi	252	29
6	Karnali	Surkhet	4	1
7	Sudoorpashchim	Kailali	15	10
Total			1,019	141 (13.8%)

Import of Plastic Products in Nepal (in metric ton)

	Year	LDPE	HDPE	PP	PS	PVC	PC	PET	TOTAL
Total	2021-22	20012.9	54754.5	59313.6	1649.2	8417.6	331.9	26054.2	170,533.9
India	2021-22	8641.0	29579.6	40195.5	101.1	4512.7	260.4	19870.0	103160.2
% from India		43.2	54.0	67.8	6.1	53.6	78.4	76.3	60.5
Total	2020-21	23997.2	68028.9	62364.7	543.3	37520.7	259.3	24569.8	217,283.9
India	2020-21	13946.0	35657.7	41236.0	406.5	469.0	130.3	18893.2	110738.6
% from India		58.1	52.4	66.1	74.8	1.2	50.3	76.9	51.0
Total	2019-20	28355.7	57045.8	52245.8	795.3	28440.1	147.5	21178.0	188,208.2
India	2019-20	17456.55	22926.0	31642.2	517.6	4919.4	105.3	16909.8	94476.8
% from India		61.6	40.2	60.6	65.1	17.3	71.4	79.8	50.2
Nepal	3 yr average	24121.9	59943.1	57974.7	995.9	24792.8	246.2	23934.0	192,008.7
India	3 yr average	13347.8	29387.7	37691.2	341.7	3300.4	165.3	18557.7	102791.9
% from India		55.3	49.0	65.0	34.3	13.3	67.1	77.5	53.5

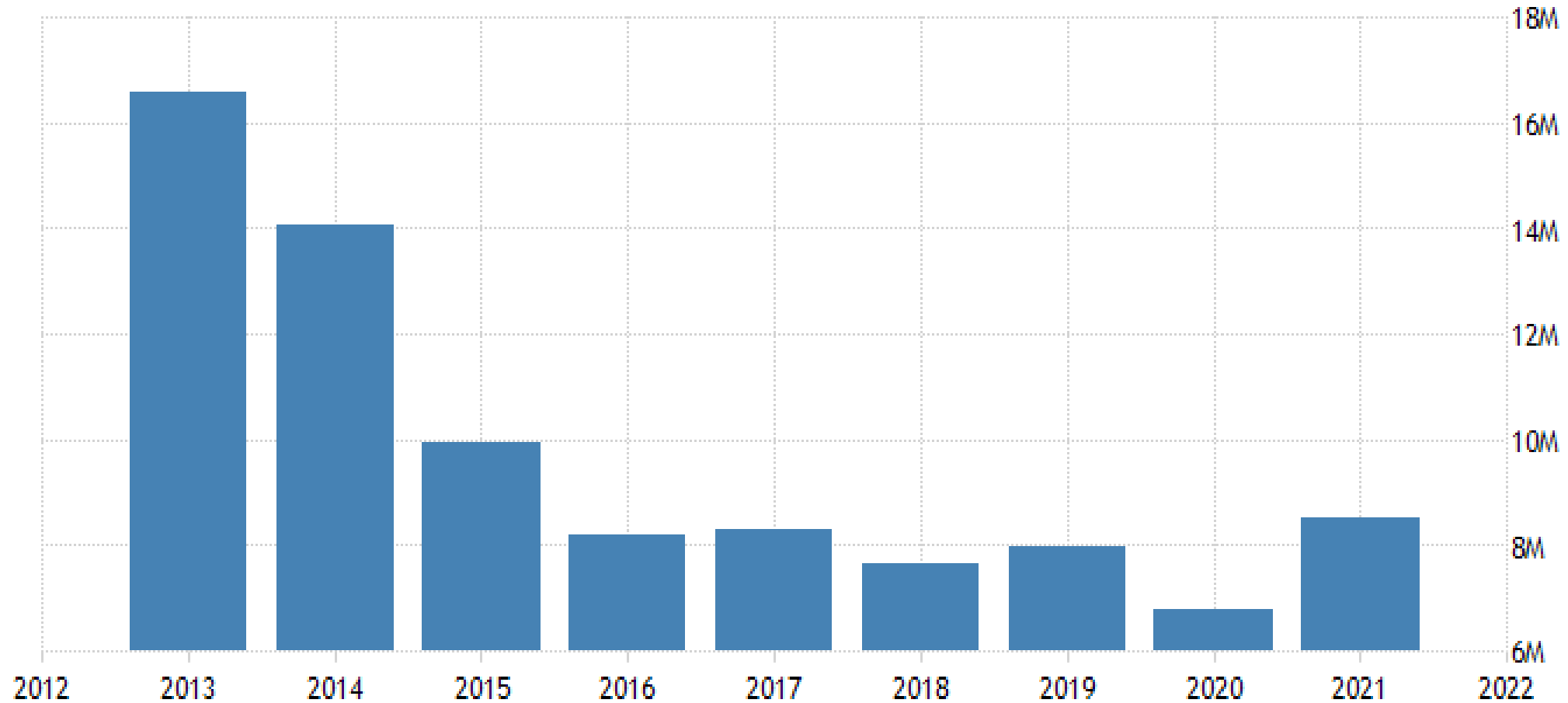
Import of Plastic Products in Nepal



COMTRADE | TRADINGECONOMICS.COM

In 2021, plastic products worth USD 630 million was imported to Nepal out of which USD 385 m from India










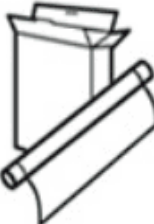




Export of Plastic Products from Nepal



COMTRADE | TRADINGECONOMICS.COM

In 2021, plastic products worth USD 8.52 million was exported from Nepal

Type of Plastic

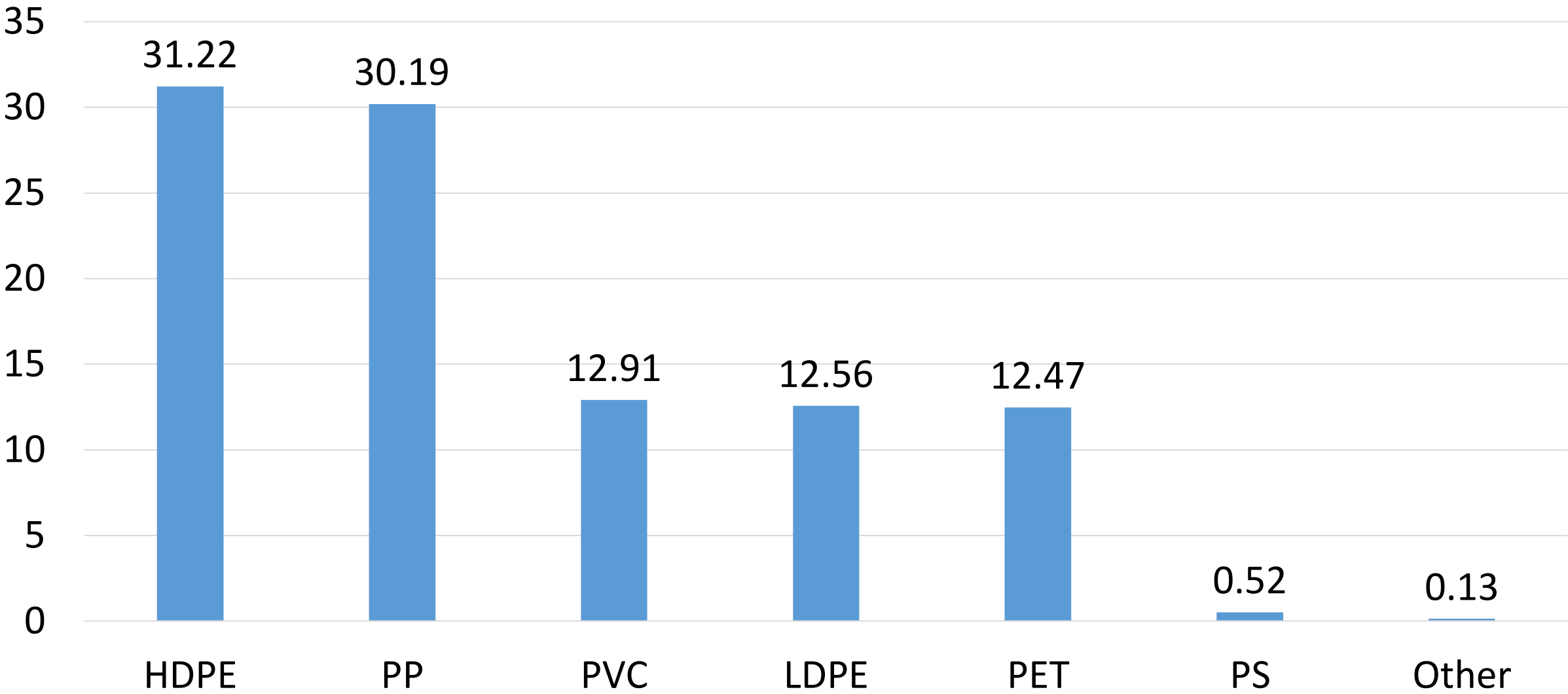
 PETE	 HDPE	 PVC	 LDPE	 PP	 PS	 OTHER
polyethylene terephthalate	high-density polyethylene	polyvinyl chloride	low-density polyethylene	polypropylene	polystyrene	other plastics, including acrylic, polycarbonate, polyactic fibers, nylon, fiberglass
soft drink bottles, mineral water, fruit juice containers and cooking oil	milk jugs, cleaning agents, laundry detergents, bleaching agents, shampoo bottles, washing and shower soaps	trays for sweets, fruit, plastic packing (bubble foil) and food foils to wrap the foodstuff	crushed bottles, shopping bags, highly-resistant sacks and most of the wrappings	furniture, consumers, luggage, toys as well as bumpers, lining and external borders of the cars	toys, hard packing, refrigerator trays, cosmetic bags, costume jewellery, audio cassettes, CD cases, vending cups	an example of one type is a polycarbonate used for CD production and baby feeding bottles
						

Plastic Characterization

Plastic Use by Polymer at Global Level (in million tons; Source: OECD, 2022)

Plastics polymer	Years				
	2015	2016	2017	2018	2019
Other	72.603	73.617	75.795	78.511	80.96
Marine coatings	0.5	0.502	0.509	0.524	0.541
LDPE, LLDPE	48.377	49.34	50.865	52.569	54.303
HDPE	49.796	50.806	52.322	53.937	55.544
PP	65.416	66.631	68.522	70.652	72.805
PS	18.898	19.229	19.82	20.486	21.116
PVC	45.26	46.093	47.812	49.751	51.392
PET	22.514	22.993	23.607	24.238	24.918
PUR	16.126	16.359	16.868	17.485	18.032
Fibres	55.362	56.3	57.534	58.926	60.448
Road marking coatings	0.6	0.607	0.63	0.657	0.682
Elastomers (tyres)	7.1	7.164	7.3	7.522	7.734
Bioplastics	2.1	2.141	2.199	2.262	2.326
ABS, ASA, SAN	8.1	8.188	8.402	8.679	8.944
Total	412.751	419.97	432.184	446.2	459.746

Plastic Characterization in Nepal



Production by Plastic Industry

SN	Province	Plastic Type	Raw Materials Used/Year (in M tons)	Production/Year (in M tons)	Share in Total Production by Plastic Type (%)
	Koshi	TOTAL	20837.3	18114	
1		PET	1239	1237	6.83
2		HDPE	7843	7592	41.91
3		LDPE	1496	1500	8.28
4		PP	7165	7335	40.49
5		PVC	550	450	2.48
6		PS	0	0	0
7		Others	2544.3	0	0
	Madhesh	TOTAL	27073	24282	
1		PET	2800	2850	11.74
2		HDPE	3614	3620	14.91
3		LDPE	4701	4904	20.20
4		PP	10285	10037	41.34
5		PVC	1830	2216	9.13
6		PS	520	578	2.38
7		Others	3154	77	0.32

Production by Plastic Industry

SN	Province	Plastic Type	Raw Materials Used/Year (in M tons)	Production/Year (in M tons)	Share in Total Production by Plastic Type (%)
	Bagmati	TOTAL	21309	18527	
1		PET	1800	1750	9.45
2		HDPE	9727	9421	50.85
3		LDPE	3670	3619	19.53
4		PP	2745	2327	12.56
5		PVC	1300	1300	7.02
6		PS	110	110	0.6
7		Others	1957	0	0
	Gandaki	TOTAL	7063	6590	
1		PET	940	590	9.00
2		HDPE	3150	3330	50.50
3		LDPE	1850	1920	29.10
4		PP	900	750	11.40
5		PVC	0	0	0
6		PS	0	0	0
7		Others	223	0	0

Production by Plastic Industry

	Lumbini	TOTAL	37408	35510	
1		PET	5195	5424	15.28
2		HDPE	13670	14010	39.45
3		LDPE	1250	1300	3.66
4		PP	7080	6835	19.25
5		PVC	7855	7775	21.9
6		PS	0	0	0
7		Others	2348	165	0.46
	Karnali	TOTAL		60	58
1		PET		0	0
2		HDPE		20	29
3		LDPE		20	29
4		PP		0	0
5		PVC		0	0
6		PS		0	0
7		Others		20	0
	Sudoorpashchim	TOTAL	4644.4	4079	
1		PET	0	0	0.00
2		HDPE	1596	1530	37.50
3		LDPE	1235	1235	30.30
4		PP	365	389	9.50
5		PVC	975	925	22.70
6		PS	10	0	0.00
7		Others	463.4	0	0.00
	Grand Total for all Districts	TOTAL	419991.5	407169	

Efforts Made in Nepal

Policy and Legislative aspects

- Solid Waste Management National Policy, 2022
- National environment Policy, 2019
- National Climate Change Policy, 2019
- Environment Protection Act 2019 and its Regulations 2020
- Local Government Operation Act 2017
- Solid Waste Management Act, 2011 and its Regulation 2013
- Public Health Service Act 2018
- Industrial Enterprise Act, 2020
- Provincial Environment Protection Act and Regulations
- Solid Waste Management Act and Environment and Natural Resources Protection Act at local level
- Environment Standards
- Plastic Bag Ban Action Plan 2021
- Order to ban on production, import, sale, distribution and storage of plastic flowers, 2022
- Annual Policy and Programmes 2023/24

11/28/2023

नेपाल राजपत्र

नेपाल सरकारद्वारा प्रकाशित

खण्ड ७१) काठमाडौं, असोज १८ गते, २०७८ साल (संख्या २४)

भाग ५

नेपाल सरकार

वन तथा वातावरण मन्त्रालयको

सूचना

नेपाल सरकार, वन तथा वातावरण मन्त्रालयले वातावरण संरक्षण ऐन, २०७६ को दफा १५ को उपदफा (६) ले दिएको अधिकार प्रयोग गरी औद्योगिक कच्चा पदार्थ वा अर्ध तयारी कच्चा पदार्थको रूपमा प्रयोग हुने प्लाष्टिकजन्य कच्चा पदार्थ बाहेक चालिस माईक्रोन भन्दा पातलो प्लाष्टिकको झोला वा अन्य प्लाष्टिकको उत्पादन, आयात, बिक्री वितरण र

प्रयोगमा पूर्णरूपमा रोक लगाउने निर्णय गरेकोले यो सूचना प्रकाशन गरिएको छ।

द्रष्टव्यः खण्ड ७१) संख्या २१ भाग ५ मिति २०७८/०५/२८ नेपाल राजपत्रमा प्रकाशित यस मन्त्रालयको सूचना खारेज गरिएको छ।

वन, वातावरण तथा सरसफाई

१८१. फोहरमैला व्यवस्थापनका लागि अन्तिम विसर्जनस्थलको व्यवस्थापन आधुनिक प्रविधि Waste to Energy एवं Environmental friendly प्रविधिबाट गर्न विकास साझेदारहरूसँग साझेदारी गरिनेछ।
१८२. नगर क्षेत्रभित्र सरसफाईको कार्यलाई व्यवस्थित र प्रभावकारी बनाउन समुदायमा आधारित फोहोर संकलन तथा व्यवस्थापन गर्ने कार्यलाई प्रोत्साहन गरिनेछ।
१८३. घरघरबाट निस्कने जैविक फोहरलाई कम्पोष्ट मल बनाउने विधिलाई अबलम्बन गरिनेछ।
१८४. अस्पतालजन्य फोहरमैला व्यवस्थापन गर्न सम्बन्धित क्षेत्रलाई पूर्ण रूपले जिम्मेवार बनाइनेछ।
१८५. जथाभावी फोहोर फाल्ने कार्यलाई दण्डनीय बनाइनेछ।
१८६. हरियाली प्रवर्द्धन गर्न निजी क्षेत्र र अन्य सामाजिक संघ/संस्थाहरूको साझेदारीमा वृक्षारोपण गर्ने एवं विरुवा हुर्काउने अभियानलाई प्रभावकारी रूपमा अगाडि बढाइनेछ। सडक छेउ र खोला किनारहरू एवं खालीजग्गामा वृक्षारोपण गर्ने, पार्क हरियाली निर्माण गर्ने विशेष कार्यक्रम सञ्चालन गरिनेछ।
१८७. वातावरण प्रदूषण रोकथाम र नियन्त्रण गर्ने कार्यलाई थप प्रभावकारी बनाइनेछ।
१८८. वातावरणमैत्री सूचकको आधारमा वातावरणमैत्री टोल प्रवर्द्धन गरिनेछ।
१८९. जलवायु परिवर्तन अनुकूलनका उपायहरूलाई अबलम्बन गरिनेछ।
१९०. नेपाल सरकार र एशियाली विकास बैंकको सहयोगमा संचालित पहिलो र दोस्रो चरणको STUIEP/RUDP परियोजनाहरूको सञ्चालन र कार्यान्वयनको सफलताबाट आर्जित पूर्वाधार विकासको थप लगानीको वातावरण अनुरूप विराटनगर वडा नं.१६ दरैयामा Waste to Energy अवधारणा (Concept) को एकीकृत फोहोरमैला व्यवस्थापन केन्द्र निर्माण (ISWM) गरिनेछ।

Efforts Made in Nepal

Institutional aspects

- Mandated agencies at federal, provincial and local level
- I/NGOs, Projects
- Civil Societies
- Media

Programmatic aspects

- Awareness
- Monitoring and enforcement
- Recycling
- Use of alternatives

Federal Level

- OPMCM
- MOFAGA
- MOFE
- MOUD
- MOICS
- NPC
- MOF
- NGOs/CBOs

Provincial Level

- OCMCM
- Environment Ministry
- Urban Development Ministry
- Planning Commission
- Finance Ministry
- NGOs/CBOs

Local Level

- Municipal Executive
- Private Contractors
- NGOs/CBOs
- Tole Organizations
- Clubs

Policies/Action Plans of Other Countries

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 16th February, 2022

G.S.R. 133(E)—In exercise of the powers conferred by sections 3, 6, and 25 of the Environment (Protection) Act 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Plastic Waste Management Rules, 2016, namely: -

1. (1) These rules may be called the Plastic Waste Management (Amendment) Rules, 2022.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Plastic Waste Management Rules, 2016 (hereinafter referred to as the said rules), in rule 9, in sub-rule (1), for the words "as per guidelines issued under these rules from time to time", the words "as per guidelines specified in SCHEDULE - II" shall substituted.
3. In the said rules, after SCHEDULE - I, the following Schedule shall be inserted namely:-

'SCHEDULE-II

[See Rule 9 (1)]

Guidelines on Extended Producer Responsibility for Plastic Packaging

1. Background:

(1.1) The Ministry of Environment, Forest and Climate Change (MoEFCC), (hereinafter referred to as "The Ministry"), notified the Plastic Waste Management Rules, 2016 on 18th March, 2016. The Ministry also notified the Solid Waste Management Rules, 2016 on 8th April, 2016. As plastic waste is part of solid waste, therefore, both the rules apply to managing plastic waste in the country.

(1.2) The Plastic Waste Management Rules, 2016, mandate the generators of plastic waste to take steps to minimize generation of plastic waste, not to litter the plastic waste, ensure segregated storage of waste at source and hand over segregated waste in accordance with rules. The rules also mandate the responsibilities of local bodies, gram panchayats, waste generators, retailers and street vendors to manage plastic waste. (1.3) The Plastic Waste Management Rules, 2016 cast Extended Producer Responsibility on Producer, Importer, and Brand Owner. Extended Producer Responsibility shall be applicable to both pre-consumer and post-consumer plastic packaging waste. (1.4) These guidelines provides framework for implementation of Extended Producer Responsibility. The Guidelines provide the roles and responsibilities of Producers, Importers, Brand Owners, Central Pollution Control Board, State Pollution Control Board or Pollution Control Committees, recyclers and waste processors for effective implementation of Extended Producer Responsibility. The definitions given in Plastic Waste Management Rules, 2016, apply until, specifically mentioned in these guidelines;

2. Date of Coming into Effect:

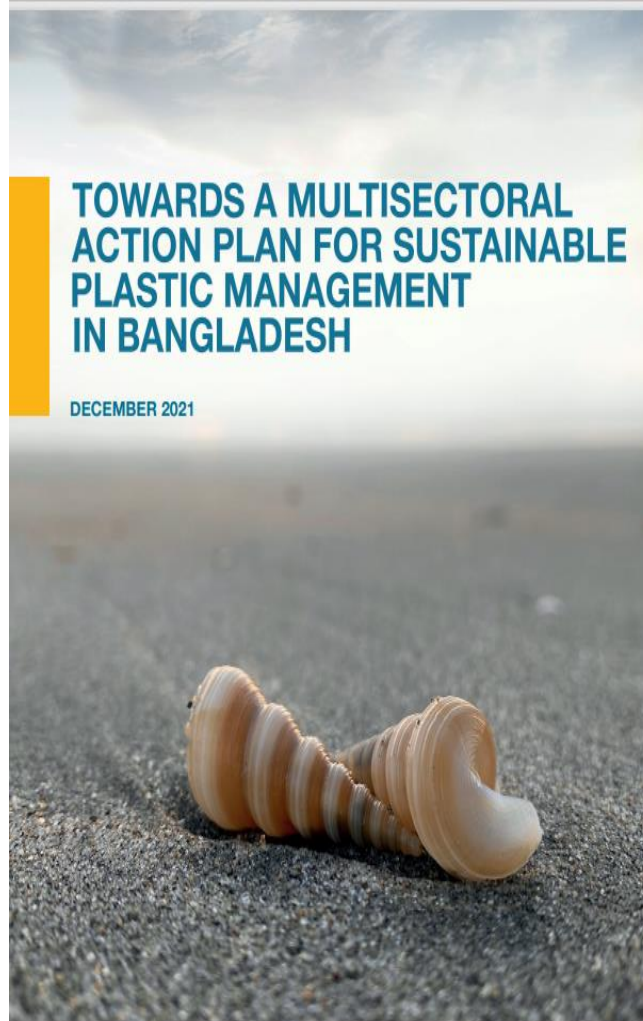
These guidelines shall come into force with immediate effect. The on-going processes related to Extended Producer Responsibility obligations will be aligned with these guidelines.

3. Definitions:

(a) "Biodegradable plastics" means that plastics, other than compostable plastics, which undergoes complete degradation by biological processes under ambient environment (terrestrial or in water) conditions, in specified time periods, without leaving any micro plastics, or visible, distinguishable or toxic residue, which have adverse environment impacts, adhering to laid down standards of Bureau of Indian Standards and certified by Central Pollution Control Board.

(b) "Brand Owner" means a person or company who sells any commodity under a registered brand label or trade mark;

(c) "Carry Bags" (covered under Category II of plastic packaging - Clause (5.1) (II)) means bags made from plastic material or compostable plastic material, used for the purpose of carrying or dispensing commodities which have a self-carrying feature but do not include bags that constitute or form an integral part of the packaging in which goods are sealed prior to use ;



Ministry of Environment, Sri Lanka



PLASTIC WASTE MANAGEMENT AND BURDEN IN CHINA

February 2022



Technical guidelines on the environmentally sound management of plastic wastes (Basel Convention)

- Legislative and regulatory framework
- Waste prevention and minimization
- Identification and inventories
- Handling, separation, collection, packaging, compaction, transportation and storage
- Environmentally sound disposal
- Health and safety
- Emergency response
- Awareness and participation

Policy instruments	Waste prevention instruments
Regulatory	Landfill ban, incineration bans, ban on single-used plastics, plastic bag bans, disposable cutlery bans, consumption reduction measures , restrictions on hazardous substances in plastics and ban on oxo-degradable and oxo-biodegradable plastics.
Market-based	Pay-as-you-throw schemes (PAYT), landfill tax, incineration tax, extended producer responsibility (EPR) principle and taxes on products (packaging, plastic bags)
Information	Labels and claims, awareness campaigns, school campaigns, procurement guidelines and information exchange platforms
Voluntary	Eco-design of products and bottle-less water

India's Plastic Rules 2016 (Amended in 2022)

- Ban on plastic bags thinner than 120 micron from Dec 2022
- More than 50-micron plastics should be used in packaging except for multilayered plastics
- Collection back mechanism for producers and importers
- 3 types of plastic packaging : Rigid, Flexible ₹ Multilayered
- Emphasis given in Recycling with quantitative targets
- Non-Recyclable plastics to be used for road, waste-to-energy, pyrolysis, cement kiln
- Producers, Importers, Recyclers to be registered at Central/State Pollution Control Board
- Provision of Environmental Compensation based on Polluters Pay Principle
- Extended Producer's Responsibility

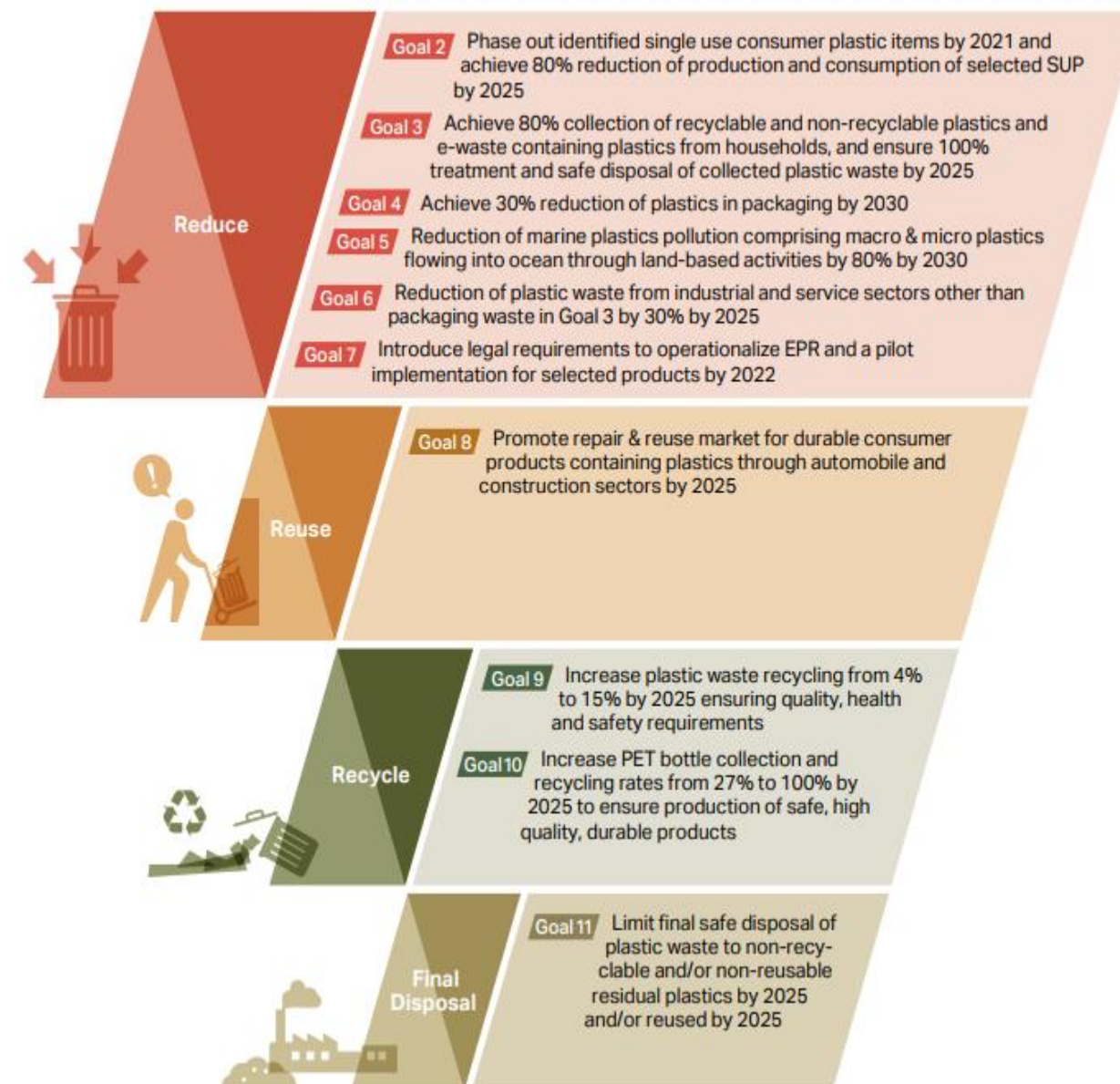


1. NAME OF POLYBAG IMPORTER :- VIP INDUSTRIES LIMITED
2. REGISTRATION NO. OF THE IMPORTER :- CIN : L25200MH1968PLC013914
3. POLYBAG THICKNESS :- ABOVE 50 MICRONS
4. BUY BACK PRICE :- ₹ 10/Kg. (APPLICABLE ONLY IN INDIA)

National Action Plan on Plastic Management of Bangladesh (2022-2030)



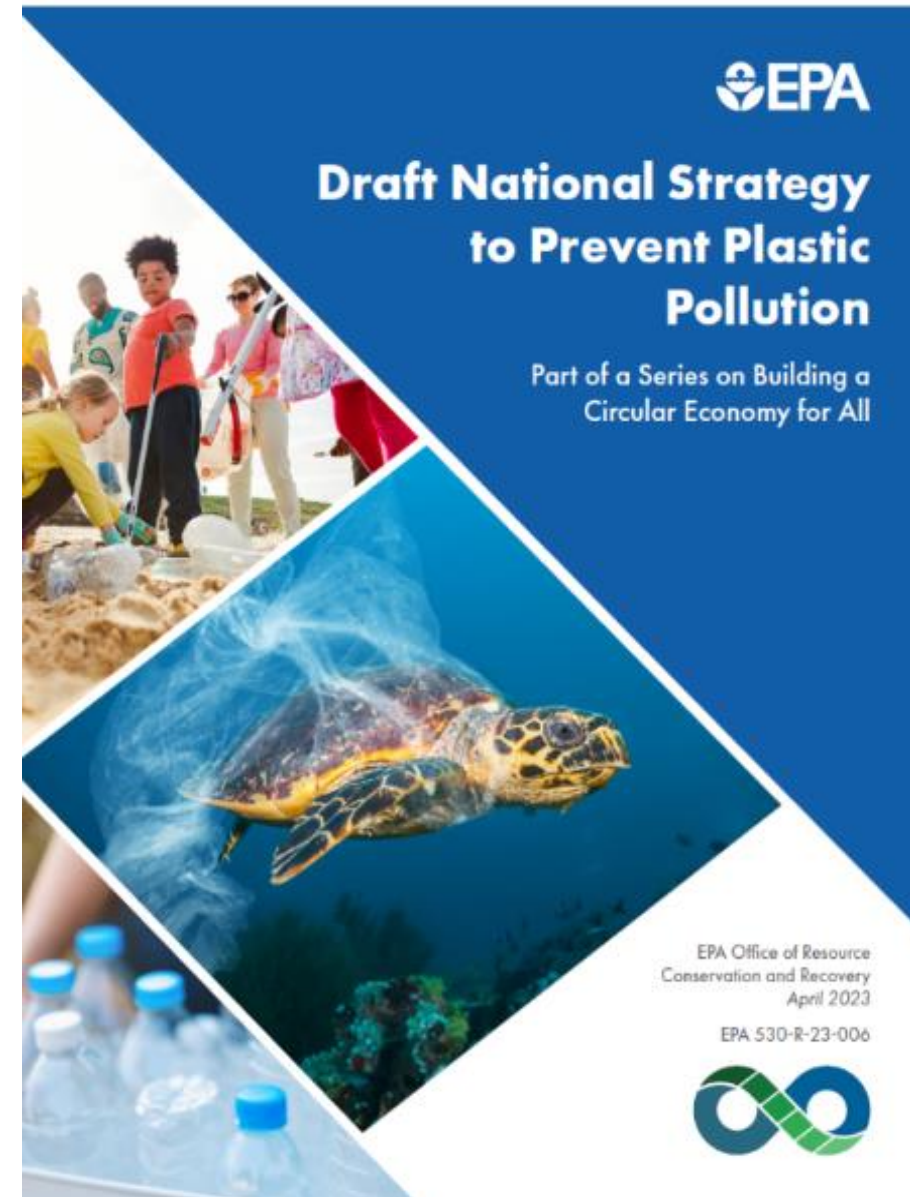
National Action Plan on Plastic Waste Management of Sri Lanka (2021-2030)



Plastic Pollution Control Strategy of USA, 2023

Strategy mentions 3 Objectives and 13 Actions

- **Objective A: Reduce pollution during plastic production**
 - 2 actions
- **Objective B: Improve post-use materials management**
 - 6 actions
- **Objective C: Prevent trash and micro/nano-plastics from entering waterways and remove escaped trash from the environment**
 - 5 actions



Goal and Objectives of the Policy

Goal

- address the associated management challenges of plastics and thereby improving the state of the environment and public health through reducing the use, enhancing reuse, and recycling plastics to promote the circular economy.

Objectives

- To control plastic pollution by progressively reduce and phase out some categories of plastics;
- To explore the alternatives to plastic products through study and research;
- To integrate the plastic management issues into policies, strategies, plans and programs of all tiers of the government;
- To identify and adopt innovative technologies for sustainable management of plastic products;
- To encourage the industries and entrepreneurs to produce alternatives to plastic through various incentive mechanisms;
- To raise awareness and promote education about the use and management of plastics;
- Promote effective institutional coordination, good governance and inclusiveness for effective plastic management.

Guiding Principles

- Circular economy principle: Use of plastic wastes as resources as far as possible which helps to reduce plastic pollution and extends the lifespan of plastic multiple times in comparison with single use plastics.
- Sustainability principle: It aims at maintaining sustainable solutions in terms of economy, environment and society.
- The precautionary principle: It seeks to minimize activities that have the potential to negatively affect the integrity of the natural environment.
- Polluter pays principle: The accepted practice that those who produce pollution should bear the costs of managing it to prevent damage to human health and the environment.
- The principle of subsidiarity: This means to ensure participatory decision-making at the lowest appropriate level in society.
- General waste of hierarchy: The waste hierarchy gives top priority to preventing waste. When waste is generated, it gives priority to preparing it for reuse, then recycling, then other recovery, and finally the disposal.
- Use of bio-degradable polymers: Explore the practical application of the use of bio-degradable materials.

Thematic Policies and Strategies

Theme	Policies
Inventory and Statistics	<p>Update inventory and statistics of plastics import, production, sale and end use and plastic waste collectors and recyclers</p> <ul style="list-style-type: none">• Design a system to assess plastics flow into and within the country• Develop database of plastic waste collectors, collection centres, sorters, cleaners, recyclers at local level
Reducing the use of plastics	<p>Reduce consumption of single-use plastics and promote eco-friendly alternatives</p> <ul style="list-style-type: none">• Motivate households to segregate the waste at source• Discourage the use and sale/distribution non-essential single-use plastics and impose a ban tax or levy on them• Promote eco-friendly alternatives such as cotton bags, bamboo products to displace the single-use plastics• Scale-up industry-led phase out of problematic packaging materials
Enhancing the reuse of plastics	<p>Promote and accelerate the markets for reusable products</p> <ul style="list-style-type: none">• Develop the legal framework and standard for low value or no value plastic to Refused Derived Fuel (RDF)• Establish environmental certification for product manufacturers who adopt design for re-using plastics

Thematic Policies and Strategies

Theme	Policies
Recycling of plastics	<p>Encourage recycling of plastics through creating enabling environment including fiscal incentives</p> <ul style="list-style-type: none">• Manage waste collection centre properly in order to segregate plastics at source• Support businesses/industries that recycle plastics and use recycled plastic products• Formulate a well-designed Extended Producer Responsibility (EPR) framework to reduce the environmental and economic burdens of plastic waste management• Introduce financial drivers (e.g. tax reduction/ subsidies) to incentivize increased use of recycled products
Disposal of Plastics	<p>Ensure safe disposal mechanism of non-recyclable plastics and synthetic products</p> <ul style="list-style-type: none">• Make arrangement for safe disposal of residual plastics to sanitary landfill sites or for waste to energy systems• Identify safe disposal mechanism for non-recyclable plastics and synthetic products used in the country• Promote the use of recyclable plastics for waste to energy or for road pavement or for incineration at brick/cement kiln

Thematic Policies and Strategies

Theme	Policies
Infrastructure and Technology	<p>Improve waste management infrastructure for collection, sorting and recycling plastics across sectors and introduce innovative technologies for recycling and management of plastics</p> <ul style="list-style-type: none">• Invest in infrastructure for collection, sorting, and processing of plastics• Introduce appropriate technologies adopted for recycling and management of plastics• Establish testing facilities and certification system to certify biodegradable and compostable plastic and recycled content• Provide subsidy to the industries on the purchase of new and modern technology equipment/machines
Awareness Generation, Publicity and Capacity Building	<p>Promote awareness generation among public, carry out extension and publicity programmes and enhance capacity of concerned stakeholder in relation to plastic management</p> <ul style="list-style-type: none">• Conduct awareness raising and capacity development programs at the local level with the participation local government agencies, non-governmental and local communities and civil society organizations• Educate the public about the value of waste to promote waste segregation at source• Incorporate environmental courses related to waste and plastic waste management into formal and non-formal educational curricula• Build capacity including logistics and infrastructure for plastics collection, recovery, recycling and re-manufacturing• Create behaviour change toolkits to address barriers for adopting plastic alternatives

Thematic Policies and Strategies

Theme	Policies
Research and Study	<p>Strengthen research, study and technology development and expansion in relation to plastic management</p> <ul style="list-style-type: none">• Conduct regularly the study and research on the production, sales, distribution and management of plastics• Assess Environmental, Social and Governance (ESG) factors of plastic manufacturing industries /factories• Conduct research on plastic leakages from upstream to downstream
Health and Safety	<p>Ensure health and safety of citizens in use of plastic handling, management, production and use</p> <ul style="list-style-type: none">• Improve occupational health and safety requirement for the plastic waste handlers and workers in the plastic industries• Stop burning of plastic waste in an open place• Prohibit the use of plastics in food packaging industries
Governance and Social Inclusion	<p>Mainstream gender equality and social inclusion issues into formulation of policies, institutional arrangement and implementation of programmes and activities related to plastic management</p> <ul style="list-style-type: none">• Promote participation of women, <i>Dalit</i>, indigenous people, youths, and other segments of the society in implementation of plastic management related programmes and activities• Develop public-private partnership to share technologies to minimize plastic in products and packaging• Involve women and disadvantaged groups in enterprises producing alternative to plastics (leaf plate, cotton bags, bamboo handicrafts etc)• Strengthen participation of media in safe handling and management of plastics

Institutional Arrangement

- The Environment Protection and Climate Change Management Council provisioned in the Environment Protection Act 2076 will act the apex body for overall guidance and interagency and inter-provincial coordination in the areas of plastic management.
- An inter-ministerial coordination committee led by Chief Secretary will be responsible for coordination and monitoring of programmes in the areas of plastic management at the national level.
- A Coordination Committee will be formed under the coordination of the Principal Secretary for coordination and monitoring of programmes in the areas of plastic management at the provincial level.
- Capacity of local governments will be strengthened to govern the tasks of plastic management within their jurisdiction.

Legal Provision

- Necessary laws, strategies, working policies, directives, procedures, guidelines and plans will be formulated at the Federal, Province and Local Level to implement this policy.
- A standard operating procedure for plastic recycling in the country will be prepared.
- Working procedures for providing incentives to industries that produce biodegradable products, plastic bags thicker than 40 micron and to recycling industries will be formulated.
- A manual for handling hazardous substances from waste separation will be prepared.
- Reports will be prepared and submitted to the legally binding instruments such as Basel Convention on Transboundary Movement of Hazardous Wastes.

Role of Federal, Provincial and Local Government

Federal	Provincial	Local
Formulate and implement necessary legislative instruments and standards consistent with this policy	Formulate and implement the provincial policies and legislative instrument including directives, standards and plans in line with this policy	Formulate and implement the local level policy and legislative instruments including directives, standards and plans in line with this policy
Formulate and implement the programmes and projects related to plastic management in conformance with international and national standards	Formulate and implement the programmes and projects related to plastic management in collaboration with local and federal governments	Implement plastic management programmes and projects in coordination and collaboration with the concerned agencies
Enhance access to bilateral, multilateral and international financial resources related to plastic management and mobilize it effectively	Establish and update database on production, sales and distribution of plastics at the province level	Establish and update database on production, sales and distribution of plastics at the local level
Establish and update database on import, production, sales and distribution of plastics in the country	Carry out monitoring and evaluation of plastic management programmes implemented within the Province	Carry out monitoring, evaluation of programmes and projects implemented within the local level
Facilitate coordination and collaboration at international and national level in the areas of plastic management	Prepare reports on plastics annually and submit it to the concerned federal agency	Prepare reports on plastics annually and submit it to the concerned provincial agency



SIMARA ===== POKHARA

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THANK YOU FOR YOUR KIND ATTENTION