#### **Nepal Plastics and Health report**

#### 1 Introduction to the country

1.1 General overview of the country and plastics sourcing, production, use and disposal, including waste trade.

The Federal Democratic Republic of Nepal is a landlocked sovereign state located in Asia. Nepal has a surface area of 147,181.48 km², lies within the latitude 26° 22'N to 30° 27' N and longitude 80° 04'E to 88° 12'E in South Asia. The Himalayan country borders China to the north and India to the south, east, and west. The average east-to-west length of the country is 885km and the north-to-south width is 193km. The altitude ranges from 60 m in the south to 8848 m, with the summit of Mount Everest, in the north within a short distance of only 160 km. The nearest point in Nepal from the sea is about 960 km away. Nepal is among the least developing countries and among 47 landlocked countries in the world. Nepal's population as of 1st of July 2022 is 30,225,582 people with a net increase of one person per minute. Several cities in Nepal are in the process of rapid urbanization, which has resulted in a higher amount of waste generation. The Capital city of Nepal, Kathmandu, has a population of about 2,041,578 (as per the 2021 census) in the district itself. Believed to be approximately 3.1 million in the entire Kathmandu valley \frac{1}{2}. Consequently, plastic use is also comparatively higher in this city, and so is the problem of plastic waste. Kathmandu Metropolitan Area alone produces 600 metric tons of waste per day among which 15.96% is plastic waste (ADB 2013)\frac{2}{2}.

Nepal imported plastics & plastic articles worth US \$627.96 million in 2021, according to the United Nations COMTRADE database. Petrochemical feedstock, naphtha and other oils, refined crude oil are used as feedstock for petrochemical crackers that produce the basic building blocks for making plastics.

It is very hard to determine the actual imports of plastic and its related products in Nepal. We have data from different sources only showing imports of direct plastic granules, and resins as raw material. One source of data shows imported plastic raw materials worth \$273 Million in 2020 (Nepal's Top 10 Imports 2020 (worldstopexports.com). But this are just imports of granules and resins.

### 2 Plastics data in the country

## 2.1 How much plastic feedstock is produced or imported in the country?

Nepal imported plastics and plastic products worth 72.34 billion Nepali rupees (568 Million US dollars) in the 2021-22 fiscal year that ended in July.<sup>3</sup> There is no data available in the public domain to understand the quantity of plastic feedstock production in the country.

<sup>&</sup>lt;sup>1</sup> Nepal Profile – Ministry of Foreign Affairs Nepal MOFA

<sup>&</sup>lt;sup>2</sup> Solid Waste Management in Nepal: Current Status and Policy Recommendations, ADB 2013

<sup>&</sup>lt;sup>3</sup> Nepal bans production, import of plastic artificial flower bunches-Xinhua (news.cn)

#### 2.2 How much plastics and what type of plastics are produced?

Researchers claim humans have produced 9.2 billion tons of plastics between 1950 and 2017, with more than half this quantity having been produced since 2004 globally<sup>4</sup>.

The plastic industry is a growing industry in Nepal which has been contributing to state revenues. It is estimated that Nepal produces 165,000 tonnes of plastic products every year. For the production of plastic goods, around 170,000 tonnes of polymer resins (raw materials) are imported from <u>India</u> every year.<sup>5</sup>

Due to their light weight, durability, and versatility, plastics have a diverse range of applications such as various household appliances, corrosion-protected pipelines, furniture, packaging materials, containers, automobile and aircraft parts, 3D printing, medical items and devices.<sup>6</sup>

Please see below pictures of plastic products produced in Nepal.



Figure 1. A few plastic products produced in Nepal (Source: Nepal Plast Foundation), presentation on the  $6^{th}$  of June 2023

### 2.3 What types of plastics does the country manufacture/import?

<sup>4</sup> https://www.icimod.org/article/a-plastic-world/ https://en.wikipedia.org/wiki/Plastic

<sup>&</sup>lt;sup>5</sup> https://www.ipl.org/essay/Plastic-Uses-And-Use-Of-The-Plastic-F37RYQ7ESJP6

<sup>&</sup>lt;sup>6</sup> https://www.nepjol.info/index.php/JIST/article/view/37837/29150

During the four months of 2022/23, merchandise (Plastics Business Enterprises /Corporate) imports decreased by 18.1%, amounting to Rs.532.69 billion against an increase of 61.6% a year ago. Imports from India, China & other countries decreased by 16.5%, 20.9% & 20.1% respectively. Nepal imports polyethylene, polypropylene, and polyvinyl chloride as raw materials for plastics manufacturing. These imports come either from Indian producers that offer resin on an ex-works basis or from polymer producers in the Middle East or Asia.

The table below shows the import of plastic and plastic products in the fiscal year mid-July 2021 to mid-July 2022.

Table of imports by commodities

					Import		
					Revenue		
				Import Value	(in		
HS Code	Description	Unit	Quantity	(in 1000)	1000)		
Plastic Wastes	Plastic Wastes						
39151000	Waste, parings and scrap, of polymers of ethylene	Kg	599	140	92		
39152000	Waste, parings and scrap, of polymers of styrene	Kg	30	9	4		
39159000	Waste, parings and scrap, of other plastic, nes	Kg	5802	3394	1166		
Plastic Granule	es and Pellets						
	Monofilament >1mm, rods and profile shapes of						
39161000	polymers of ethylene	Kg	141863	24942	11665		
	Monofilament >1mm, rods, etc., of polymers of						
39162000	vinyl chloride	Kg	4815462	745065	347311		
	Monofilament >1mm, rods and profile shapes of						
39169000	other plastics, nes	Kg	2492804	367470	172821		
	Artificial guts of hardened proteins or cellulosic						
39171000	materials	Kg	43096	39291	21296		
	Tubes, pipes and hoses, rigid, of polymers of						
39172100	ethylene	Kg	3540961	892069	59293		
20472200	Tubes, pipes and hoses, rigid, of polymers of		20220	44007	5205		
39172200	propylene	Kg	20329	11927	6396		
20172200	Tubes, pipes and hoses, rigid, of polymers of vinyl chloride	V	1271002	417240	222400		
39172300		Kg	1271983	417240	222108		
39172900	Tubes, pipes and hoses, rigid, of other plastics, nes	Kg	264197	99103	53769		
20172100	Flexible tubes, pipes and hoses, with a bust	W-	160554	71106	27754		
39173100	pressure >=276mpa	Kg	169554	71186	37751		
39173100	Apparatus for switching electrical circuits, nes, =<1000 V	PCS	3	1	1		
391/3100	Tubes, pipes and hoses, not reinforced, without	PC3	3	1	1		
39173200	fittings, nes	Kg	29533	17602	9522		
33173200	Tubes, pipes and hoses, not reinforced, with	1\8	25555	17002	3322		
39173300	fittings attached, nes.	Kg	12950	10044	4081		
39173900	Other tubes, pipes and hoses, nes	Kg	367857	164589	75528		
39174000	Fittings, for tubes, pipes and hoses, of plastic	Kg	1357779	810353	423330		
39174000	Floor covering of polymer of vinyl chloride, in roll	Ng	1337779	810333	423330		
39181010	or in the form of tiles	Kg	2195268	248689	123660		
33101010	Wall or celling coverings and others, of polymer of	1\8	2133200	240003	123000		
39181090	vinyl chloride	Kg	4988578	594872	280087		
	Floor covering of other plastic, in roll or in the form	0	133373	33.072			
39189010			337961	50613	24724		
	Wall or celling coverings and others of polymer of	Kg					
39189090	other plastic	Kg	502792	81318	39659		
	Self-adhesive tape, plates, strip, in roll, width						
39191000	=<20cm	Kg	526567	152468	74436		

	Other self-adhesive plates, tape, strip, foil of				
39199000	· · · · · · · · · · · · · · · · · · ·		868998	284968	137283
39201010	Plates, of polymers of ethylene, not reinforced, etc		6729571	464632	127078
39201090	Plates, of polymers of ethylene, not reinforced, etc		4803257	599741	196098
	Plates, of polymers of propylene, not reinforced,				
39202010	etc.		450979	133773	47001
	Plates, of polymers of propylene, not reinforced,				
39202090	etc.	Kg	6327112	1404096	420845
39203010	Plates, of polymers of styrene, not reinforced, etc.	Kg	17032	4041	1721
39203090	Plates, of polymers of styrene, not reinforced, etc.	Kg	168442	21163	7455
	Plates, polymers of vinyl chloride, containing <6%				
39204310	of plasticisers	Kg	501	236	100
	Plates, polymers of vinyl chloride, containing <6%	l .,			
39204390	of plasticisers	Kg	457796	54624	20039
20204040	Other - Plates, sheets of polymers of vinyl chloride	V.~	210021	00615	21.402
39204910	Other - Plates, sheets of polymers of vinyl chloride	Kg	319821	99615	21493
39204990	nes	Kg	1911255	478314	131692
33204330	Plates, of poly (methyl methacrylate), not	Νg	1311233	478314	131032
39205110	reinforced, etc.	Kg	13952	5378	2351
00100110	Plates, of poly (methyl methacrylate), not	6		3070	
39205190	reinforced, etc.	Kg	112198	34452	11806
	Plates, of other acrylic polymers, not reinforced,				
39205910	etc., nes	Kg	341439	28285	9465
	Plates, of other acrylic polymers, not reinforced,				
39205990	etc., nes	Kg	1612127	245782	79164
39206110	Plates, of polycarbonates, not reinforced, etc.	Kg	208350	11302	3558
39206190	Plates, of polycarbonates, not reinforced, etc.	Kg	935759	93998	31909
39206210	Printed ethylene terephthalate	Kg	143918	44466	13677
39206290	Other ethylene terephthalate	Kg	3466859	765332	236386
	Plates, of unsaturated polyesters, not reinforced,				
39206310	etc.	Kg	40243	10157	3121
	Plates, of unsaturated polyesters, not reinforced,				
39206390	etc.	Kg	1906546	423639	129321
20200010	Plates, of other polyesters, not reinforced, etc.,	l/ -	220406	111100	46265
39206910	nes	Kg	329196	111498	46365
39206990	Plates, of other polyesters, not reinforced, etc.,	Kα	308691	80171	27210
39200990	Plates, of regenerated cellulose, not reinforced,	Kg	308091	80171	2/210
39207110	etc.	Kg	198	115	49
33207110	Plates, of regenerated cellulose, not reinforced,	1,8	150	113	73
39207190	etc.	Kg	1714	311	162
39207310	Plates, of cellulose acetate, not reinforced, etc.		33	18	10
39207390	Plates, of cellulose acetate, not reinforced, etc.		202	97	35
	Plates, of other cellulose derivatives, not	Kg		37	
39207910	reinforced, etc., nes	Kg	582	82	35

19207999		Distant of other collulate derivatives not				
39209110   Plates, of poly (vinyl butyral), not reinforced, etc.   Kg   9592   5580   2441   39209190   Plates, of poly (vinyl butyral), not reinforced, etc.   Kg   9592   5580   2441   39209210   Plates, of polyamides, not reinforced, etc.   Kg   12312   4559   1932   39209210   Plates, of polyamides, not reinforced, etc.   Kg   26605   9940   3561   39209210   Plates, of polyamides, not reinforced, etc.   Kg   26605   9940   3561   39209310   resins   Kg   500   280   147   39209390   Plates, of amino-resins, not reinforced, etc.   Kg   296   145   53   39209410   Plates, of phenolic resins, not reinforced, etc.   Kg   2300   279   118   39209490   Other plates, sheets, film, foil and strip, of phenolic resins   Plates, of other plastics, not reinforced, etc.   Kg   3751175   1308397   518611   39209990   Plates, of other plastics, not reinforced, etc., nes   Kg   10267883   887995   249140   Printed plates, sheets, film, foil and strip, of phenolic resins   Polymers of styrene   Kg   39865   8800   3659   39211110   Other plates, sheets, film, foil and strip, of polymers of styrene   Kg   39865   8800   3659   39211210   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12842   4628   39211390   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12842   4628   39211390   Cellular plates, strips of polymers of polyurethanes   Kg   11036   4332   2075   39211410   Cellular plates, strips of polymers of polyurethanes   Kg   11036   4332   2075   39211910   Cellular plates, strips of polymers of regenerated   cellulose   Cellular plates, strips of polymers of regenerated   cellulose   Kg   34301   39315   39311910   Cellular plates, strips of polymers of Regenerated   cellulose   Cellular plates, strips of polymers of Regenerated   Cellular plates, strips of polymers of Regenerated	Plates, of other cellulose derivatives, not reinforced, etc., nes		Kg	9596	6080	2212
39209190				1		
Plates, of polyamides, not reinforced, etc.   Kg   12312   4559   1932   3920920   Plates, of polyamides, not reinforced, etc.   Kg   26605   9940   3561	39209190			9592	5580	2441
Plates, of polyamides, not reinforced, etc.   Kg   26605   9940   3561	39209210			12312	4559	1932
Printed plates, sheets, film, foil and strip, of amino   Kg   500   280   147   39209310   resins   Plates, of amino-resins, not reinforced, etc.   Kg   296   145   53   39209410   Plates, of phenolic resins, not reinforced, etc.   Kg   2300   279   118   39209410   Plates, of phenolic resins, not reinforced, etc.   Kg   2300   279   118   39209410   resins   Rg   438   152   63   39209410   Plates, sheets, film, foil and strip, of phenolic   Kg   3751175   1308397   518611   39209910   one   Kg   3751175   1308397   518611   39209990   Plates, of other plastics, not reinforced, etc., nes   Kg   10267883   887995   249140   Printed plates, sheets, film, foil and strip, of   Polymers of styrene   Kg   39865   8800   3659   39211110   Polymers of styrene   Kg   110470   23936   7891   39211210   Cellular plates, strips of polymers of vinyl chloride   Kg   7548   3377   1404   39211290   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12482   4628   39211300   Cellular plates, strips of polymers of polyurethanes   Kg   11036   4832   2075   39211410   Cellular plates, strips of polymers of polyurethanes   Kg   77957   17727   5655   39211490   Cellular plates, strips of polymers of regenerated   Cellulose   Kg   7890   10451   3911   3911490   Cellular plates, strips of polymers of regenerated   Kg   78990   10451   3911   39211990   Cellular plates, strips of other plastics, nes   Kg   734612   237045   87475   39219010   Other cellular plates, strips, of plastics, nes   Kg   34301   9833   4087   39219010   Other cellular plates, strips, of plastics, nes   Kg   34301   9833   4087   39219019   Other   39219019   Other   Kg   34301   9833   4087   39219019   Other   39219019   39219019   Other   39219019   39219019   39219019   39219019   39219019						
39209390   Plates, of amino-resins, not reinforced, etc.   Kg   296   145   53   39209410   Plates, of phenolic resins, not reinforced, etc.   Kg   2300   279   118   39209410   Plates, of phenolic resins, not reinforced, etc.   Kg   2300   279   118   39209410   Plates, of phenolic resins   Kg   438   152   63   39209410   one   Kg   3751175   3108397   518611   39209910   one   Kg   3751175   3108397   518611   39209990   Plates, of other plastics, not reinforced, etc., nes   Kg   10267883   887995   249140   Printed plates, sheets, film, foil and strip, of   Polymers of styrene   Kg   39865   8800   3659   23921110   Polymers of styrene   Kg   110470   23936   7891   39211210   Cellular plates, strips of polymers of vinyl chloride   Kg   7548   3377   1404   39211290   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12842   4628   39211310   Cellular plates, strips of polymers of polyurethanes   Kg   11036   4832   2075   39211310   Cellular plates, strips of polymers of polyurethanes   Kg   11036   4832   2075   39211410   Cellular plates, strips of polymers of regenerated   Cellular plates, strips of polymers of Rg   11895   3012   1634   39211990   Cellular plates, strips of polymers of Rg   118954   33879   12407   39211990   Cellular plates, strips of other plastics, nes   Kg   138954   33879   12407   39219010   Other cellular plates, strips, of plastics, nes   Kg   34301   9833   4087   39219010   Other cellular plates, strips, of plastics, nes   Kg   34301   9833   4087   39219091   Other cellular plates, strips, of plastics, nes   Kg   235684   489897   171033   39219090   Other cellular plates, strips, of plastics, nes   Kg   2135684   489897   171033   39219090   Other cellular plates, strips, of plastics, nes   Kg   149955   94568   51452   3922000   Lavatory seats						
39209410   Plates, of phenolic resins, not reinforced, etc.   Kg   2300   279   118	39209310	resins	Kg	500	280	147
Other plates, sheets, film, foil and strip, of phenolic resins   Kg   438   152   63	39209390	Plates, of amino-resins, not reinforced, etc.	Kg	296	145	53
Pates   Pate	39209410	Plates, of phenolic resins, not reinforced, etc.	Kg	2300	279	118
Plates, of other plastics, not reinforced, printed one   Kg   3751175   1308397   518611   39209990   Plates, of other plastics, not reinforced, etc., nes   Kg   10267883   887995   249140   Printed plates, sheets, film, foil and strip, of polymers of styrene   Kg   39865   8800   3659   39211110   polymers of styrene   Kg   39865   8800   3659   39211120   Cellular plates, strips of polymers of vinyl chloride   Kg   7548   3377   1404   39211290   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12842   4628   39211310   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12842   4628   39211390   Cellular plates, strips of polymers of vinyl chloride   Kg   77957   17727   5655   39211390   Cellular plates, strips of polymers of regenerated   Cellular plates, strips of ther plastics, nes   Kg   76890   10451   3915   39211490   Cellular plates, strips of other plastics, nes   Kg   734612   237045   37475   39219010   Other cellular plates, strips, of plastics, nes   Kg   610163   200746   77588   39219010   Other cellular plates, strips, of plastics, nes   Kg   34301   9833   4087   39219019   Other   Kg   34301   9833   4087   39219019   Other   Kg   34301   9833   4087   39219019   Other   Secondard   Seconda		Other plates, sheets, film, foil and strip, of phenolic				
39209910         one         Kg         3751175         1308397         518611           39209990         Plates, of other plastics, not reinforced, etc., nes         Kg         10267883         887995         249140           39211110         Printed plates, sheets, film, foil and strip, of polymers of styrene         Kg         39865         8800         3659           39211190         polymers of styrene         Kg         110470         23936         7891           39211210         Cellular plates, strips of polymers of vinyl chloride         Kg         7548         3377         1404           39211290         Cellular plates, strips of polymers of vinyl chloride         Kg         56894         12842         4628           39211390         Cellular plates, strips of polymers of roplyurethanes         Kg         11036         4832         2075           39211410         Cellular plates, strips of polymers of regenerated         Kg         77957         17727         5655           39211490         Cellular plates, strips of polymers of regenerated         Kg         11905         3012         1634           39211900         Cellular plates, strips of other plastics, nes         Kg         76890         10451         3915           39211901         Cellular plates, strips, of plas	39209490		Kg	438	152	63
3920990   Plates, of other plastics, not reinforced, etc., nes						
Printed plates, sheets, film, foil and strip, of polymers of styrene   Kg   39865   8800   3659				+		
39211110         polymers of styrene         Kg         39865         8800         3659           39211190         Other plates, sheets, film, foil and strip, of polymers of styrene         Kg         110470         23936         7891           39211210         Cellular plates, strips of polymers of vinyl chloride         Kg         7548         3377         1404           39211290         Cellular plates, strips of polymers of vinyl chloride         Kg         56894         12842         4628           39211310         Cellular plates, strips of polymers of polyurethanes         Kg         11036         4832         2075           39211390         Cellular plates, strips of polymers of regenerated cellulose         Kg         77957         17727         5655           39211410         cellular plates, strips of polymers of regenerated cellulose         Kg         76890         10451         3915           3921190         cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           39211910         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           392190	39209990	·	Kg	10267883	887995	249140
Other plates, sheets, film, foil and strip, of polymers of styrene   Kg   110470   23936   7891   39211210   Cellular plates, strips of polymers of vinyl chloride   Kg   7548   3377   1404   39211290   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12842   4628   39211310   Cellular plates, strips of polymers of vinyl chloride   Kg   56894   12842   4628   39211310   Cellular plates, strips of polymers of polyurethanes   Kg   11036   4832   2075   39211390   Cellular plates, strips of polymers of polyurethanes   Kg   77957   17727   5655   Cellular plates, strips of polymers of regenerated   Cellular plates, strips of polymers of regenerated   Cellular plates, strips of polymers of regenerated   Cellular plates, strips of there plastics, nes.   Kg   118954   33879   12407   39211990   Cellular plates, strips of other plastics, nes.   Kg   118954   33879   12407   39211990   Cellular plates, strips of there plastics, nes.   Kg   610163   200746   77588   77588   734612   237045   87475   39219010   Other cellular plates, strips, of plastics, nes   Kg   610163   200746   77588   77588   77597   7759778   775977778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   77597778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   7759778   775977778   7759778   7759778   7759778   7759778   7759778   775977   7759778   7759778   775977   7759778   7759778   775977   77597778   7759778	20244440		14.	20065	2000	2650
39211190         polymers of styrene         Kg         110470         23936         7891           39211210         Cellular plates, strips of polymers of vinyl chloride         Kg         7548         3377         1404           39211290         Cellular plates, strips of polymers of vinyl chloride         Kg         56894         12842         4628           39211310         Cellular plates, strips of polymers of polyurethanes         Kg         11036         4832         2075           39211390         Cellular plates, strips of polymers of regenerated         Kg         77957         17727         5655           2011390         Cellulars, strips of polymers of regenerated         Kg         11905         3012         1634           39211410         cellulose         Kg         76890         10451         3915           39211910         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           3921901         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           3921901         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         formica)         SQM         7797378	39211110		Kg	39865	8800	3659
39211210         Cellular plates, strips of polymers of vinyl chloride         Kg         7548         3377         1404           39211290         Cellular plates, strips of polymers of vinyl chloride         Kg         56894         12842         4628           39211310         Cellular plates, strips of polymers of polyurethanes         Kg         11036         4832         2075           39211390         Cellular plates, strips of polymers of polyurethanes         Kg         77957         17727         5655           Cellular plates, strips of polymers of regenerated cellulose         Kg         11905         3012         1634           39211410         Cellular plates, strips of polymers of regenerated cellulose         Kg         76890         10451         3915           39211910         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           3921901         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           3921901         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         formica)         SQM         7797378         1467513         635916           39219091         Other cellular pl	20211100		Kα	110470	22026	7901
39211290         Cellular plates, strips of polymers of vinyl chloride         Kg         56894         12842         4628           39211310         Cellular plates, strips of polymers of polyurethanes         Kg         11036         4832         2075           39211390         Cellular plates, strips of polymers of polyurethanes         Kg         77957         17727         5655           Cellular plates, strips of polymers of regenerated cellulose         Kg         11905         3012         1634           Cellular plates, strips of polymers of regenerated cellulose         Kg         76890         10451         3915           39211490         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           39211910         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         formica)         SQM         7797378         1467513         635916           39219091         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products				†		
39211310         Cellular plates, strips of polymers of polyurethanes         Kg         11036         4832         2075           39211390         Cellular plates, strips of polymers of polyurethanes         Kg         77957         17727         5655           Cellular plates, strips of polymers of regenerated         Kg         11905         3012         1634           Cellular plates, strips of polymers of regenerated         Kg         76890         10451         3915           39211490         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           39211910         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         formica)         SQM         7797378         1467513         635916           39219019         Other         Kg         34301         9833         4087           39219019         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica &				+		
39211390   Cellular plates, strips of polymers of polymerthanes   Kg   77957   17727   5655				1		
Cellular plates, strips of polymers of regenerated cellulose			T .	1		
39211410         cellulose         Kg         11905         3012         1634           39211490         Cellular plates, strips of polymers of regenerated cellulose         Kg         76890         10451         3915           39211910         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           39211990         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           Decorative Laminated sheets (sunmica and formica)         SQM         7797378         1467513         635916           39219019         Other         Kg         34301         9833         4087           39219091         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         149955         94568         51452           39221000         Lavatory seats and cov	39211390		Kg	//95/	1//2/	5655
Cellular plates, strips of polymers of regenerated cellulose	39211/110		Κσ	11905	3012	1634
39211490         cellulose         Kg         76890         10451         3915           39211910         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           39211990         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         formica)         SQM         7797378         1467513         635916           39219019         Other         Kg         34301         9833         4087           39219019         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           39221000         plastics         Kg         149955         94568         51452           39222000         Lavatory seats and covers of plastics         Kg	33211410		INS	11505	3012	1054
39211910         Cellular plates, strips of other plastics, nes.         Kg         118954         33879         12407           39211990         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         formica)         SQM         7797378         1467513         635916           39219019         Other         Kg         34301         9833         4087           39219091         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           39221000         plastics         Kg         149955         94568         51452           39222000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           39229000         plastics, nes.         Kg         37	39211490		Kg	76890	10451	3915
39211990         Cellular plates, strips of other plastics, nes.         Kg         734612         237045         87475           39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         formica)         SQM         7797378         1467513         635916           39219019         Other         Kg         34301         9833         4087           39219091         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           39221000         plastics         Kg         149955         94568         51452           39222000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           39229000         plastics, lavatory pans and other sanitary ware of plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose<	39211910	Cellular plates, strips of other plastics, nes.		118954	33879	12407
39219010         Other cellular plates, strips, of plastics, nes         Kg         610163         200746         77588           39219011         Decorative Laminated sheets (sunmica and formica)         SQM         7797378         1467513         635916           39219019         Other         Kg         34301         9833         4087           39219091         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           39221000         plastics         Kg         149955         94568         51452           39222000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           39229000         plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose         Kg         612968         401325         123982	39211990	Cellular plates, strips of other plastics, nes.		734612	237045	87475
Decorative Laminated sheets (sunmica and formica)   SQM   7797378   1467513   635916	39219010			610163	200746	77588
39219019         Other         Kg         34301         9833         4087           39219091         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           Baths, shower-baths, sinks and wash-basin of plastics         Kg         149955         94568         51452           39221000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           Bidets, lavatory pans and other sanitary ware of plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose         Kg         612968         401325         123982						
39219091         Other cellular plates, strips, of plastics, nes         Kg         293064         54105         19651           Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           Baths, shower-baths, sinks and wash-basin of plastics         Kg         149955         94568         51452           39221000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           Bidets, lavatory pans and other sanitary ware of plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose         Kg         612968         401325         123982	39219011	formica)	SQM	7797378	1467513	635916
Plastic Products           39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           Baths, shower-baths, sinks and wash-basin of plastics         Kg         149955         94568         51452           39222000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           Bidets, lavatory pans and other sanitary ware of plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose         Kg         612968         401325         123982	39219019	Other	Kg	34301	9833	4087
39219092         Decorative laminated sunmica & formica sheets         SQM         2986535         466362         199572           39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           Baths, shower-baths, sinks and wash-basin of plastics         Kg         149955         94568         51452           39222000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           Bidets, lavatory pans and other sanitary ware of plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose         Kg         612968         401325         123982	39219091	Other cellular plates, strips, of plastics, nes	Kg	293064	54105	19651
39219099         Other cellular plates, strips, of plastics, nes         Kg         2135684         489897         171033           Baths, shower-baths, sinks and wash-basin of plastics         Kg         149955         94568         51452           39222000         Lavatory seats and covers of plastics         Kg         61257         20353         11138           Bidets, lavatory pans and other sanitary ware of plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose         Kg         612968         401325         123982	Plastic Produc	ts				
Baths, shower-baths, sinks and wash-basin of plastics   Kg   149955   94568   51452	39219092	Decorative laminated sunmica & formica sheets	SQM	2986535	466362	199572
Baths, shower-baths, sinks and wash-basin of plastics       Kg       149955       94568       51452         39222000       Lavatory seats and covers of plastics       Kg       61257       20353       11138         Bidets, lavatory pans and other sanitary ware of plastics, nes.       Kg       372171       200163       108943         39231010       Plastic tubes for packing purpose       Kg       612968       401325       123982	39219099	Other cellular plates, strips, of plastics, nes	Kg	2135684	489897	171033
39222000 Lavatory seats and covers of plastics Kg 61257 20353 11138  Bidets, lavatory pans and other sanitary ware of plastics, nes. Kg 372171 200163 108943  39231010 Plastic tubes for packing purpose Kg 612968 401325 123982		Baths, shower-baths, sinks and wash-basin of				
Bidets, lavatory pans and other sanitary ware of	39221000	plastics	Kg	149955	94568	51452
39229000         plastics, nes.         Kg         372171         200163         108943           39231010         Plastic tubes for packing purpose         Kg         612968         401325         123982	39222000	Lavatory seats and covers of plastics	Kg	61257	20353	11138
39231010 Plastic tubes for packing purpose Kg 612968 401325 123982						
	39229000			372171	200163	108943
39231020 Egg crates Kg 1729 1645 600	39231010	Plastic tubes for packing purpose		612968	401325	123982
	39231020	Egg crates		1729	1645	600

	Other boxes, cases, crates and similar articles of				
39231090	plastics		1205524	448955	197740
39232100	Sacks & bags of polymers of ethylene		258394	87962	42945
39232900	Sacks & bags of other plastics	Kg	400784	130138	61691
39233010	Pet bottles (bottle pre-form) of plastics	Kg	1096180	282139	107468
	Other - carboys, bottles, flasks and similar articles				
39233090	nes of plastics	Kg	1203115	443703	54058
	Other - spools, cops, bobbins and similar supports				
39234090	nes of plastics	Kg	101437	34973	5108
39235000	Stoppers, lids, caps and other closures of plastics	Kg	1781582	917142	301052
39239010	Composite LPG cylinders	Kg	528	319	173
39239090	Other packing of goods	Kg	853361	321690	168088
39241010	Infant feeding bottles	Kg	93972	51431	18744
39241020	Melamine utensils	Kg	343380	104427	56819
39241090	Other - Tableware and kitchenware nes of plastics		1289180	491321	271433
	Special types of dishes, feeding beans and water				
39249010	for chickens	PCS	345318	46679	2140
39249030	Household and toilet articles of plastics, nes	SQM	10396	7710	4206
39249090	Other	Kg	384764	152707	85292
39249095	Household and toilet articles of plastics, nes	Kg	3015	1467	817
	Reservoirs and similar containers, capacity >300 l,				
39251000	of plastics	Kg	50957	18717	9951
	Doors, windows and their frames and thresholds				
39252000	for doors, of plastics	Kg	269409	84791	45149
	Shutters, blinds and similar articles and arts, of				
39253000	plastics	Kg	153465	32295	17123
39259010	Roofing sheet and roofing tiles	Kg	36698	6450	3634
39259020	PUF sandwich walls and roof panels	Kg	380505	106976	49469
39259030	Aluminium composite panels	Kg	2056576	282560	153358
39259090	Other builders wares of plastics	Kg	3555062	551183	289716
39261000	Office or school supplies of plastics		248309	77394	43548

### 2.4 How much and what type of plastics are imported into the country?

Nepal's imports of plastic products and items were worth US\$627.96 million in 2021, according to the United Nations COMTRADE database on international trade.<sup>7</sup>

In 2021, <u>Nepal</u> imported \$38.3M of <u>Other Plastic Products</u>, becoming the 106th largest importer of <u>Other Plastic Products</u> in the world. At the same year, <u>Other Plastic Products</u> was the 72nd most imported product in <u>Nepal</u> imports <u>Other Plastic Products</u> primarily

<sup>&</sup>lt;sup>7</sup> https://tradingeconomics.com/nepal/imports/plastics

from: <u>China</u> (\$23.5M), <u>India</u> (\$8.67M), the <u>United States</u> (\$1.7M), <u>Australia</u> (\$1.51M), and <u>Ireland</u> (\$899k).

The fastest-growing import markets of <u>Other Plastic Products</u> for <u>Nepal</u> between 2020 and 2021 were <u>China</u> (\$11.2M), <u>India</u> (\$2.76M), and <u>United States</u> (\$1.63M).<sup>8</sup>

- Polymers of ethylene, in primary forms
- Polymers of propylene or other olefins, primary forms
- Other plates, sheets, film, foil, strips of plastics (non-cellular)
- Polyether, epoxides & polyesters, primary forms
- Articles for conveyance or packing of goods, stoppers, or plastics
- Other plates, sheets, film, foil, strips of plastic
- Tubes, pipes, hoses, fittings, joints, elbows, of plastics
- Amino resins, phenolic and polyurethanes, primary forms
- Polymers of vinyl chloride or of other halogenated olefins
- Other articles of plastics
- Builders' ware of plastics
- Tableware, kitchenware, other household articles, of plastics
- Floor coverings of plastics, wall or ceiling coverings of plastics
- cellulose and its chemical derivatives
- Polymers of vinyl acetate or other vinyl esters, other vinyl polymers
- Polymers of styrene, in primary forms
- Acrylic polymers in primary forms
- Baths, shower-baths, wash-basins, similar sanitary ware of plastics
- Silicones, in primary forms
- Self-adhesive plates, sheets, film, foil, tape, strips, of plastics
- Monofilament, rods, sticks, profile shapes of plastics
- Petroleum resins, coumarone-indene resins, polyterpenes, polysulfide
- Ion-exchangers based on polymers of ethylene or natural polymer
- Natural polymers and modified natural polymers
- Polyamides in primary forms
- Waste, parings, scrap of plastics<sup>9</sup>

# 2.5 How much chemicals for use in plastics are produced and/or imported in the country?

Chemical substances are added to plastics for a variety of reasons. To make products flexible, for example, plasticizers such as phthalates are used. Flame retardants are added to furniture and electronics to make them more heat resistant. Over 4000 chemicals are likely or possibly used for

<sup>8</sup>https://oec.world/en/profile/bilateral-product/other-plastic-products/reporter/npl?

<sup>&</sup>lt;sup>9</sup> https://tradingeconomics.com/nepal/imports/india/plastics

plastic packaging alone. While all chemicals are not necessarily harmful, at least 63 of these have been identified as hazardous to human health. 10

As these products are mostly imported along with some domestically produced items. There is no information available on how many chemicals have been used during the production of these products.

However, looking at the profiles of the companies associated with the Plast Nepal Foundation (PNF), which is an umbrella organization of major plastic companies of Nepal, there are many kinds of plastic and plastic-related chemicals and raw materials businesses are using in the country. These include:

- Raw materials
- *Masterbatches and additives*
- Plasticizers
- Bio polymers
- Printing inks
- Extrusion sheets/films
- Extrusion pipes and profiles
- Semi-finished products
- Recyclers etc.

# 2.6 How much plastic waste are generated in the country? What happens to the plastic waste?

Kathmandu alone uses up to 4,800,000 plastic bags a day, and 800 tons of this non-degradable material is dumped in landfill sites. One plastic bag takes 500 years to completely biodegrade, and they have now contaminated water, soil, and air and accelerated the climate crisis. Up to seven types of plastic can be found in dumping sites and the lowest grades of plastic reduce the lifespan of landfills. Nearly two-thirds of plastic waste comes from plastics with lifetimes of under five years, with 40% coming from packaging, 12% from consumer goods and 11% from clothing and textiles According to the ICIMOD (2018), Nepal produces about 2.7 tons of plastic garbage daily, and its improper management creates numerous problems, including environmental pollution. Only one-third of the total plastic waste generated is suitable for recycling based on their material composition (Chamas et al., 2020)<sup>13</sup>. In Nepal, plastic accounted for 16 percent of urban waste, which means 2.7 tons of daily plastic waste production, according

<sup>&</sup>lt;sup>10</sup> https://www.googleadservices.com/pagead/aclk?sa=L&ai=DChcSEwiF1cP3r-z9AhV-kmYCHY5tBDcYABAAGgJzbQ&ohost

<sup>&</sup>lt;sup>11</sup> https://www.nepalitimes.com/here-now/refuse-recycle-reuse-repurpose-plastic

 $<sup>^{12}</sup> https://www.google.com/search?q=How+much+plastic+waste+are+generated+in+the+country\%3F+What+happens+to+the+plastic+paste\%3F\&sxsrf=APwXEdcOKosG$ 

 $<sup>^{13}</sup>https://www.google.com/search?q=How+much+plastic+waste+are+generated+in+the+country+nepal%3F+\&sxsrf=APwXEdez9USlz3o\_Du4V5Taxraoc2vjHmQ%3A16848$ 

to an article released in 2018 by the Kathmandu-based International Centre for Integrated Mountain Development.

## 2.7 How much plastic waste is exported from, imported into your country?

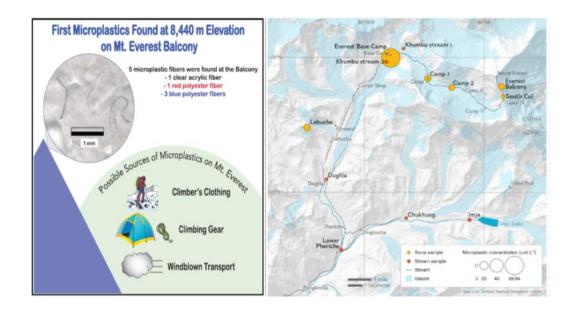
Nepal lags far behind, both in policy and implementation, despite importing plastic materials worth Rs 22 billion annually and earning Rs 6 billion in excise tax. The value of imports of commodity group HS Code 3915 (waste parings and scraps, other plastics) "Waste, parings and scrap, of plastics" to Nepal totaled \$30 thousand in 2021. Sales of commodity group 3915 to Nepal went up by 10.1% as compared to 2020: imports of commodity group 3915 "Waste, parings and scrap, of plastics" went up by \$2.77 thousand (the value of imports of commodity group 3915 to Nepal was equal to \$27 thousand in 2020).

#### 2.8 How much plastics end in the environment in your country?

In Nepal, plastic accounts for 16% of urban waste, which means 2.7 tons of daily plastic waste production. Plastic thrown haphazardly into rivers and streams cause flooding and pollution, affects the water cycle, and harms aquatic species and wildlife in the region. Microplastics have been found in Nepal's rivers and has been traced to human blood. <sup>14</sup> Microplastics were also traced in the high Himalayas over 8400 msl on Mount Everest, the peak of the world. Microplastics were found in snow and stream water samples on Mt. Everest. The highest level where microplastics were discovered in a sample is 8440 m. Microplastics were detected at an ~30 MP  $L^{-1}$  in snow and ~1 MP  $L^{-1}$  in stream water, and the majority were fibrous. Most microplastics were polyester fibres, likely from clothing and equipment. 5 microplastic fibres were found at the balcony (an area on Mount Everest where climbers rest), 1 clear acrylic fibre, 1 red polyester fibre and 3 blue polyester fibre.

\_

<sup>&</sup>lt;sup>14</sup> https://www.nepalitimes.com/here-now/refuse-recycle-reuse-repurpose-plastic



# 2.9 Have there been accidents relating to plastics that were made public, including spills of primary plastics (e.g. pellets, fires at recycling facilities)

Yes, several fire incidents happened in plastic factories in different parts of Nepal.

- 15th April 2023: A fire broke out in a plastic factory located in Siyari 7, Amuwa in Rupandehi. A fire broke out at Jai Plastic Industries Pvt. Ltd in Amuwa and caused losses of 80 Lakhs Nepali rupees (61,500 US\$) worth of finished products and raw materials, including PVC pipes. 15
- A fire broke out in a plastic factory in Dhanusha, eastern Nepal in January 2023. The fire has caused losses of around Rs 100 million (0.76 Million US\$). The fire damaged a Janaki plastic factory run by Nawal Murarka in Bhagwatipur of Laxminiya Gaonpalika-7 of the district. <sup>16</sup>
- Another incident consumed property worth Rs 1.2 million after a plastic factory caught fire in the Balaju Industrial Area on Sunday evening (8th October 2017). According to ASI Dil Bahadur Bhujel of Balaju-based police check post, the fire started in the factory apparently due to a short circuit at around 5:15 pm, reducing plastic sheets to ash.<sup>17</sup>
- July 18, 2015: Property worth 15 Million Nepali rupees (0.115 Million USD) was damaged after a fire broke out in MM Plastic Industry in Biratnagar. <sup>18</sup>

<sup>&</sup>lt;sup>15</sup> The Nepali Post: Nepal's No 1 English News Portal | English News from Nepal | Online News Portal News | Fire In Rupandehi's Plastic Industry, Loss Of 80 Lakhs

 $<sup>^{16}</sup>$ https://thenepalipost.com/details/18914#:~:text=Jan%2011%2C%20Kathmandu%2D%20A%20fire,loss%20of%20Rs%201%20million.

<sup>&</sup>lt;sup>17</sup> https://myrepublica.nagariknetwork.com/news/28727/?categoryId=81

<sup>&</sup>lt;sup>18</sup> Fire in plastic industry (thehimalayantimes.com)

#### **Recycling Capacity**

## 2.10 Are there recycling centers for plastic waste in your country? Are there plans to build them?

Yes, there are recycling centers for plastic waste in our country. These facilities (Kathamndu, Polkhara, Chitwan, Dang) are recycling plastic waste to produce plastic pellets and other plastic products such as building bricks etc. In addition to these plastic waste recycling facilities, there are a number of poly pipes businesses throughout the country that have been known and found to be mixing plastic waste with some percentage of virgin plastic pellets to make wastewater drainpipes, etc. e.g. Mirchaiya Municipalty, Siraha, plastic pipe manufacturing facilities.

### 2.11 If yes, how many? Please provide a list to the best of your knowledge

There are dozens of recycling centers in Nepal, see below just a few of them as follow:

- i. Himalayan life plastics recycling plant Pokhara
- ii. Doco Recyclers- Bhaktapur
- iii. Enviroplasts Nepal pvt.ltd- Hetauda
- iv. Paper, plastic & steel recycle- Kathmandu
- v. Plastic crusher factory- Biratnagar
- vi. Teku Recycling Materials Collection- Kathmandu
- vii. Shirijansip Sewa pvt.ltd- Lalitpur
- viii. Upcycle Nepal Kathmandu
- ix. PSD Nepal- Kathmandu
- x. Himal Recycling Centre-Birgunj
- xi. Thulo Kabadi Recycling-Kathmandu
- xii. Green Valley Recyclers Pokhara
- xiii. Rijal Kawadi Centre- Bharatpur
- xiv. Kabadi Center, Kathmandu
- xv. Thulo Kawadi Recycling
- xvi. Tankeshwor Kawadi 19

### 2.12 How much plastic is recycled?

1200 tons of plastic is recycled annually in Nepal. Up to seven plastic types can be found in dumping sites, and the lowest grade plastics reduce the lifespan of the landfills. Of these, PET (polyethylene terephthalate) bottles are the easiest and most recyclable. However, Nepal does not have extended producer responsibility schemes for the manufacturers to recycle plastic items.<sup>20</sup>

 $<sup>^{19}</sup>$ https://www.google.com/search?tbs=lf:1,lf\_ui:2&tbm=lcl&q=how+many+plastic+recycling+centres+in+nepal&rflfq=1&num=10&sa=X&ved=2ahUKEwjF6uWru-z9AhXCwjgGHSF5CQoQjGp6BAgnEAl&biw=1517&b.

<sup>&</sup>lt;sup>20</sup> Refuse, recycle, reuse, repurpose plastic | Nepali Times

#### 2.13 What types of plastics are recycled?

The types of plastics recycled in Nepal are:

- PP (Polypropylene)
- *PVC* (*Polyvinyl Chloride*)
- *MLP* (Multi-layered Plastics)
- High Density Polyethylene (HDPE)<sup>21</sup>

#### 3 Waste Disposal

### 3.1 Does your country have incinerators or chemical recycling facilities? Are there plans to build or create them?

No, our country does not have incinerations or chemical recycling facilities for exclusive plastic waste. Some of the hospitals do have incinerators for medical waste.

Yes, there is a plan to build them as some of the municipalities are opting for the incineration technology for solid waste.

# 3.2 Is the open burning of plastics a problem in your country? Is it regulated?

Yes, the open burning of plastics is a huge problem in our country. In rural areas, plastics are also used as a fuel for cooking meals. Even in other areas, people were using plastic for firing their cooking stoves.

<u>Nepal Waste Map</u>, a digital platform that allows citizens to report waste burning, dumping and irregular or untimely waste collection services, records 70 waste burning spots in Kathmandu alone.<sup>22</sup>

Yes, there is regulation against open burning, but it is not effectively implemented in the country. Recently, the Department of Environment released a video message to stop open burning.

## 3.3 Any other relevant information on plastics disposal that could not be included in the questions above.

Plastic containing waste was found dumped along riverbanks. Plastic is openly burned in many places, even at the athletics and ANFA buildings as well as academic universities with the

https://www.google.com/search?q=how+much+plastic+is+recycled+in+nepal+2022&biw=1517&bih=730&ei=BVoZ Zlv3ML7DjuMP3qis2AM&ved=0ahUKEwjLjYyvvez9AhW-

<sup>&</sup>lt;sup>21</sup>https://www.google.com/search?q=What+types+of+plastics+are+recycled+in+nepal&biw=1517&bih=730&ei=Elo ZZLrvOrCy4-EP68uE6A4&ved=0ahUKEwi6wK-

<sup>&</sup>lt;sup>22</sup> https://bit.ly/3oIU5IF

Department of Environmental Sciences located in the same site as the Tribhuvan University (TU), a government run university.

#### 4 National Policy Initiatives

# 4.1 Any government initiative, if any, to control the import, use and disposal of plastics and their associated chemicals?

Yes, there is a government strategy <sup>23</sup>to control the use and disposal of plastics. Yes, there is a plastic waste reduction strategy<sup>24</sup>. Yes, the Nepal government restricts the single use plastics.

In 2015, the Nepal government banned polythene bags thinner than 40 microns. The effectiveness of the ban lasted for only a few months. Due to weak enforcement and monitoring mechanisms, the effect of the ban was negligible. However, there is no initiative to regulate the associated chemicals in plastics or plastic products.

The annual budget speech for the fiscal year 2023/24 also stated that the use of biodegradable or cotton bags instead of plastic bags will be encouraged. Promotional activities for environmental conservation will be implemented.<sup>25</sup>

Starting from April 14, 2023, gutkha and tobacco industries will be required to use biodegradable packaging materials instead of plastic when packing products subject to excise duties. This is to contribute to environmental pollution control.<sup>33</sup>

In order to protect the domestic production of industrial goods that are self-reliant in the country, the duties on the import of some goods were increased. Also, in order to promote the production of the indigenous industry, the agreement will not be made to exempt from import duties the goods that are sufficiently available in the country, such as cement, iron rods, iron pipes and plastic pipes, zinc sheets, electrical cables, etc., which are required for the projects to be signed after the 17th of July 2023. There is an arrangement that the indigenous industry can sell such goods to projects by giving a discount on value added tax and excise duty. <sup>33</sup>

Nepalese authorities have banned single-use plastics in the Everest region in a bid to cut down the waste left by climbers. The ban took effect in the Khumbu Pasang Lhamu municipality in January 2020<sup>26</sup>. The ban has not proven to be effective as we have observed an increased use of single use plastic items, especially the mountaineering items, in the country.

Nepal does not have extended producer responsibility to recycle plastic.

<sup>&</sup>lt;sup>23</sup> स्वागतम् | वातावरण विभाग (doenv.gov.np), http://doenv.gov.np/notice-details/182/21683289

<sup>&</sup>lt;sup>24</sup> प्लाष्टिक-झोला-प्रतिबन्ध-कार्ययोजना-०७८1644728262pdf-3426-197-1658822724-99956-1660561214-(1)-1667890099.pdf (doenv.gov.np),

<sup>&</sup>lt;sup>25</sup> Budget Speech 2023/24, https://mof.gov.np/site/publication-detail/3263

<sup>&</sup>lt;sup>26</sup> Single-use plastics banned in Nepal's Everest region - BBC News

#### **Plastic Policies**

- A. Nepalaese Constitution, Article 30, Every citizen has the right to live in a clean & safe environment as a fundamental right.
- B. 15th Five years plan (15th July 2019 to 15th July 2024) clearly had the provision to addresses plastic pollution issues. It clearly obliged the government to prevent the production, use, restriction, and reuse of plastic-containing products, and alternative environment-friendly ways to replace plastic have been sought.
- C. Environment Strategy 2076, pollution-prone plastic use needs to be replaced by an alternative environmental-friendly means related strategy & action plan adopted.
- D. Plastic Bag (Monitoring & Control) Directive 2068 has the provision of restricting the import, storage, sale, distribution, and use of plastic bags of less than 20 microns. Furthermore, central and district level monitoring mechanisms were also envisioned for effective implementation. This guideline became not effective because of an unpredicted earthquake in 2015.
- E. Furthermore, in order to strengthen once again the fight against plastic pollution, GON has once again banned the restriction of production, strategy, sales, distribution, and use of plastic bags of <40 Micron, i20"\*35"effective from 2072/11/1 BS, which was not effective because of the earthquake.
- F. Once again plastic bag control was prioritized and listed among 100-point priority actions of MoFE.
- G. Solid Waste Management National Policy 2022
- H. National Environment Policy, 2019
- I. National Climate Change Policy, 2019
- J. Environment Protection Act 2019 and its Regulation 2020
- K. Local Government Operation Act 2017
- L. Solid Waste Management Act 2011 and its Regulation 2013
- M. Public Health Service Act 2018
- N. Industrial Enterprises Act 2020
- O. Provincial Environmental Protection Act and Regulations, including some municipalities that have exclusive plastic Acts and based on which they have banned the production and uses of plastics in their jurisdiction (e.g. Dhangadhi Municipality)
- P. Solid Waste Management Act, Environment and Natural Resource Protection Act at Local Level
- Q. Environment Standards (e.g. standards for incinerators, air, water, industrial effluents, emission standards from some industries etc.)
- R. Healthcare Waste Management Guidelines, 2014 and Healthcare Waste Management Standards Operating System 2021
- S. Plastic Bag Ban Action Plan 2021
- T. Order to Ban the production, import, sale, distribution and storage of plastic flowers 2022

#### U. Annual Policy and Program 2023/24 etc.

The above-mentioned policies, acts, regulations and even standards have some exclusive provisions about regulating plastics as well as indirect provisions on waste management, including plastic waste.

*New policies under discussion and formulation specifically on plastics issues are:* 

- *Reducing the use of plastics*
- Enhancing the reuse of plastics
- Recycling plastics
- Disposal plastics

# 4.2 What policy and legal frameworks are in place to control the health impacts of plastics, in particular on chemical ingredients in plastics?

No, there is no policy and legal frameworks in place to control the health impacts of plastics, in particular, chemical ingredients in plastics.

#### 4.3 What is your government policy on chemicals in plastics?

No, there is no government policy on chemicals in plastics.

### 4.4 Does it restrict (e.g. bans, limit values) the use of any chemicals in plastics?

No, there is no regulation to restrict the use of any chemicals in plastics.

### 4.5Does it plan to?

No, there is no plan.

### 5 . Plastics Recycling

### 5.1 Does the country have laws on recycling plastics?

No, Nepal does not have an extended producer responsibility mechanism to recycle plastics. However, the Solid Waste Management Act 2011 and the Solid Waste Management Regulation 2013 do have provision on recycling, but it is not specifically for plastic waste.

### 5.2Is there a requirement to separately collect plastic waste? Which types of waste does it cover?

No, there are no requirements to separately collect plastic waste.

### 5.3Is the recycling of certain plastics prohibited or restricted?

No, there is no prohibition or restriction on certain plastics.

# 5.4 Are there laws that require that certain chemical contents are not exceeded in plastics?

No, there are no laws that require that certain chemical contents are not exceeded in plastics.

#### 5.5 Are there laws on occupational exposure related to plastics?

No, there is no occupational exposure laws related to plastics.

### 5.6 Does your government have policies that allow tracking information on the chemicals used as plastics ingredients? If not, does it plan to?

No, our country does not have policies that allow tracking information on the chemicals used as plastic ingredients. Yes, there is planning going on. The Consumer Protection Act from 2018 has the clear provision of labelling ingredients of the products<sup>27</sup>. In addition, there are ongoing discussions at the Office of the Prime Minister and Council of Ministers (OPMCM) about the working procedure for manufacturing plastic bags over 40 micron, producing alternative bags and waste management, recycling of plastic.

### 5.7 Is your country a party to the Basel, Stockholm and Rotterdam Conventions?

Yes, our country is a party to the Basel, Stockholm and Rotterdam Conventions.

# 5.8 Did your country take actions to implement the phase out of the chemicals in the Stockholm convention and the Basel related legislation?

Yes, our country has initiatives to implement the phase-out of the chemicals under the Stockholm Convention and the Basel-related legislation. Nepal is a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal since 13 January 1997. In 2019, the Basel Convention was amended to incorporate plastic waste. The Treaty Act of Nepal, in section 9 and section 10, requires the government to comply with prevailing provisions of the Convention. The ratification of the Convention has led the government of Nepal to enact several laws and polices related to waste management. <sup>28</sup>

<sup>&</sup>lt;sup>27</sup> The-Consumer-Protection-Act-2075-2018.pdf (lawcommission.gov.np)

 $<sup>^{28}</sup>https://l.facebook.com/l.php?u=https%3A%2F%2Ffoeasiapacific.org%2Fwp-content%2Fuploads%2F2021%2F08%2FBreaking-the-Plastic-Cycle-in-Asia.pdf%3Ffbclid%3DlwAR3kMsLgY8jB1AYsxJBBKZsOJCg623PlMG0rDq5N4jv-KMhgotxS5SO_ORQ&h=AT1yAM4iyc411_UmXbkWr1pDdYbXPSUqk-$ 

#### BANNED PESTICIDES IN NEPAL S.No. Name of the S.No. Name of the Years Years S.No. Name of the Banned **Banned** Banned **Pesticides Pesticides Pesticides** Endrin 2001 Chlorodane 15 Endosulfan 2012 1 2001 9 Heptachlor 2001 Dieldrin Phorate 2015 2001 16 BHC 2001 10 17 2019 3 Aldrin Carbofuran 2001 11 Organo Mercury 2001 Fungicide Dichloryus 2019 4 Mirex 2001 18 12 Toxaphane 2001 5 Lindane 2001 19 Triazophos 2019 13 Monochrotophos 2006 20 Carbaryl 2019 6 Phosphamidon 2001 14 Methyle 2006 DDT 21 Benomyl 2019 2001 Parathion 24 Carbosulfan 2019 23 2019 Dicofol 2019 **Aluminum Phosphate**

Source: Plant Quarantine and Pesticide Management Center, Ministry of Agriculture and Livestock Development: http://npponepal.gov.np/

### 5.9Does the country have a policy for making plastic waste generators responsible for the waste? Is there a plan to do so?

No, the country does not have a policy for making plastic waste generators responsible for the waste. However, there is a plan to do so.

The Solid Waste Management Act from 2021 and its Regulation 2013 have clear provisions that the responsibility of the management of waste lies on its generators<sup>29</sup>. It defines the following:

- 1) The local body shall be responsible to manage or cause to manage the solid waste under this Act.
- 2) Notwithstanding anything written in Sub-section (1) the responsibility for the processing and management within the set standard of harmful waste, health institutions related waste, chemical waste or industrial waste shall be of the individual or body producing such solid waste.

### 5.10 Is there a general tax on virgin plastics? Are there plans to set up one?

The import duty on polymers of ethylene from South Asian Association for Regional Cooperation (SAARC) countries are 6% and 13%VAT<sup>30</sup>. Plastic products exporting countries are divided into 2 groups: SAARC countries and other countries such as India, China, Australia, USA, Malaysia, UK, Italy, Japan etc. According to the customs tariffs, the revenue for plastic products exported to

<sup>&</sup>lt;sup>29</sup> Solids Waste Management Act 2011, Solid Waste Management Act, 2068 (2011) – Nepal Law Commission

<sup>&</sup>lt;sup>30</sup> Breaking the Plastic Cycle in Asia (foeasiapacific.org)

Nepal from SAARC countries was 0.045 dollars per kg and the revenue for plastic products exported from other countries was 0.075 dollars per kg.

HEADING	SUB- HEADING	Description of Article	UNIT	Export Duty (% except otherwise specified) for FY 2078-79	Export Duty (% except otherwise specified) for FY 2077-78
39.15		Waste, parings and scrap, of plastics.	Per Kg	5	2
3915	3915.10.00	-Of polymers of ethylene	Per kg	5	2
3915	3915.20.00	-Of polymers of styrene	Per kg	5	2
3915	3915.30.00	-Of polymers of vinyl chloride	Per kg	5	2
3915	3915.90.00	Of other plastics	Per kg	5	2

### 5.11 Is there a tax for placing plastic or plastic containing products on the market (including electronics, plastics bags, deposit return schemes)? Are there plans to set up one?

No, there is no tax for placing plastic-containing products on the market (including electronics, plastic bags, and deposit returns schemes. However, the revenue for plastic products exported to Nepal from SAARC countries was 0.045 dollars per kg and the revenue from other countries was 0.075 dollars per kg according to the customs tariffs. Yes, there is a plan to set up one.

### **5.12** Is there an Extended Producers Responsibility system? Are there plans to create one

No, there is no extended producer responsibility system. Yes, there is a plan to create one.

### 6 Any other issue on plastics laws and policies

No, there are no other issues. However, we may think of raising the issue of the transboundary movement of virgin, recycled plastic beads, plastic products as well as waste.

25 May 2023

#### **Letter to Government of Nepal**

#### to Take a Strong Position in Negotiations for Global Plastics Treaty (GPT)

To: Delegates (Ministry of Forest and Environment) involved in UN Global Plastics Treaty Negotiations, 2nd Session of the Intergovernmental Negotiating Committee (INC-2); May/June 2023 in Paris, France.

Studies show that the total mass of virgin plastics ever produced amounts to 8.3 billion tonnes, mainly derived from natural gas and crude oil. Between 1950 and 2015, a total of 6.3 billion tonnes of primary and secondary (recycled) plastics waste were generated, of which around 9% has been recycled, and 12% incinerated, with the remaining 79% either stored in landfills or having been released directly into the natural environment. Since 2004, the world has made as many plastics as it did in the previous half-century. Because the world's population has been growing and so is urbanization; plastic is cheap, readily available, and widespread in use. We have a disposable mentality when it comes to plastic, and there is an increasing amount of plastic pollution created on the planet. The linear economy of extraction, production, consumption and disposal is the main cause of the plastic pollution. UNEP estimates that today we produce about 400 million tonnes of plastic waste every year and if the historic growth of plastic pollution continues then the global production of primary plastic will be forecasted to reach 1,100 million tonnes by 2050.

In addition to this, several studies confirm that micro plastics pervade food chains, deep in human lungs and bloodstream, deplete food production, exacerbate urban flooding, contaminate pristine high mountains (Mount Everest), jeopardize biodiversity and pose a pressing global health risk with airborne nano plastics. A study by Tearfund (a UK-based charity) identifies that increasing plastic pollution puts damaging impacts on waste pickers' health and human rights, agricultural yields, fishing, existing recycling facilities, and tourism resulting in reduced revenues.

In Nepal, 16% of urban waste comprises plastics. The daily use of plastic bags in Kathmandu alone is more than 48 million pieces. Plastics on mountains are a new threat to water resources, biodiversity and ecosystem. With the increase in tourist flows, expansion of road networks, and unplanned urbanization, the daily plastic waste production and leakage in the environment have been increasing in the country. Studies claim that flash flood impacts are high in Nepal as plastic wastes clog urban drainage networks, and choke rivers and streams in the mountains and hilly regions. Inefficient and inadequate solid waste management services make the situation even worse resulting in land, water, and scenic pollution with high impacts on the environment and human as well as animal health. The major problem of the municipalities is that they are still spending time and resources dumping mixed waste in the jungle, river and open space. Plastic pollution is spiraling into a crisis directly affecting the achievement of over half of the United Nations Sustainable Development Goals – SDGs 3, 6, 11, 12, 13, 14, and 15 and is an urgent issue that must be addressed.

#### Nepalese CSOs' Coalition Engaging on the UN Treaty on Plastics Pollution

Currently, six civil society organizations - Tearfund Nepal, Centre for Public Health and Environmental Development (CEPHED), Health Environment and Climate Action Foundation (HECAF 360), Pragya Seeds International, Jiwanta Nepal, Youth Council in Action for Nation (YOUTH CAN) - have joined hands together to form a CSOs' Coalition to contribute to the Nepal Government's policy and programming efforts to end plastics pollution. Of them, Tearfund is an international charity registered in the UK, working in Nepal and around 50 other nations, while five other organizations in the coalition are national civil society organizations working on various aspects of plastics, plastic waste and chemicals in plastics control and management in Nepal and are being active partner organizations (PO) of several global network working on plastic issues like GAIA, IPEN etc., among others.

The Coalition aims to engage in sensitizing, building capacity, collaborating with, and complementing the concerned stakeholders – the Governments, private sector, CSOs, academia, and media at the national level to influence the ongoing global process of the intergovernmental negotiations to end plastic pollution towards an international legally binding instrument, envisaged through the resolution (5/14) adopted by the United Nations Environment Assembly (U-5.2) in February 2022. Though the current number of CSOs involved in this campaign is just six; the number we aim to reach out will go higher to make this platform a common, inclusive, and whole-of-society movement, of the actors working in the sector of plastics waste management – reduce, reuse and recycle, among others.

Given that there is an opportunity to engage in and influence the global intergovernmental negotiation process currently underway, the coalition will actively engage in this process at local, sub-national, national, and global levels to inform, voice out and influence the negotiation dialogues. At the global forums of negotiations, the voice of Nepalese CSOs will be taken through the delegates of the Government of Nepal, and civil society constituency as well. This process of negotiations will continue in series until December 2024 at the global level to bring a legally binding framework on ending plastics pollution – termed as the 'instrument'. Beyond 2024, (when the framework comes out) this CSOs' coalition shall engage with the Government of Nepal in the processes of developing policies and action plans, and their implementation strategies for ending plastic pollution at the national level.

At this stage, this coalition has already summoned a series of courtesy talks with the Government focal person – Mr. Nabin Pokhrel (Senior Divisional Engineer/Ministry of Forest and Environment), and his team since the beginning of the INC-1 forum. We believe that the Government's participation in the INC-1 forum has been a great learning opportunity for us as a country. Therefore, our participation in the INC-2 and subsequent forums should be much more effective and meaningful. For this, the Nepalese CSOs' coalition is willingly available to extend needful support and cooperation to the Government and other stakeholders engaged in this process.

#### **Our Call for Action**

To this end, the undersigned organizations in Nepal stand in solidarity with the Government of Nepal as well as the global community in calling for an ambitious and comprehensive solution to address the alarming plastic pollution circumstances. We propose that the direction of movement of the entire world community should be towards instituting an international legally binding global

instrument on plastics pollution covering toxic free circular measures along the entire life cycle of plastics - extraction of raw materials, design and production, packaging and distribution, use and maintenance and recycling, reuse, recovery.

Specifically, we hereby submit our non-exhaustive recommendations to the Ministry of Forest and Environment (MoFE) and urge INC-2 delegates of the Government of Nepal to consider these requests as you finalize the Government of Nepal's position on INC options for the Global Plastics Treaty.

- 1. Amplify the voice of the mountain plastics crisis to be included by words in treaty text providing evidence and advocating for a dedicated provision in the GPT. Secure support for innovative policies and programming solutions, along with sufficient funding, to address plastic pollution hotspots in mountain peaks, trekking routes, national parks, mountain cities, and towns. The plastic waste by the tourists in the mountain area is increasing day by day and there is always a need for innovative solutions. These areas bear the brunt of the mountain plastics crisis, impacting water resources, biodiversity, tourism revenue, and traditional local livelihoods.
- 2. Demand for a complete ban on public financial investments in fossil-based petrochemical and plastics industrial projects as well as subsidies related to plastics (including petrochemicals and fossil fuel subsidies). Push for subsidies for plastic alternatives and substitutes that have potential for replacing existing fossil based plastics and creating green jobs in least developed and developing countries' economies.
- 3. Raise the voice in the negotiations demanding that the treaty should give enough space to national governments to formulate their policies and action plans, being able to decide on their pressing needs and issues on their own; for instance, eliminating the Single Use Plastics (SUPs) including plastic packaging, identification, transparency and labeling of chemical ingredients of plastic products, etc. That the treaty must ensure adequate financial, technological, and innovative support extended to the developing countries like Nepal to help them build their institutional capacity, and develop and roll out country-specific policies and action plans on plastics waste management which will enable the national government to set up the targets on plastic reduction.
- 4. Uphold the provision to legally protect the livelihoods, health and human rights of informal waste pickers. The informal waste workers have been playing a key role in recovering end-of-life plastic products, recycling, and preventing plastic leakage into the environment. They contribute to fill in the gap of municipal waste management systems and they are environmental stewards. However, their activity is characterized by unsafe and unhealthy working conditions, low or irregular incomes, long working hours and lack of access to information, markets, finance, training and technology. The upliftment of youth waste pickers to plastic to work activities through adequate training and access to finance to run the enterprise. GPT should encourage the national governments for Gender, Disability and Social Inclusion (GEDSI) integrated policies targeting the informal waste pickers to protect their human rights.
- Make a demand for adequate financial provision to build capacity and global recognition for a just transition for workers in the informal waste sector and communities in low and middle-income countries who depend on plastic.
- Ensure that the GPT holds the space for informal waste pickers' associations recognizing the importance of engaging them as important stakeholders/partners to implement the instrument through National Action Plans. They are engaged in the policy

- negotiations, target setting, monitoring and decision making at the national levels as well as at the GPT level.
- 7. Prioritize a ban on "Plastic neutrality" as it is a false solution to plastics pollution. Companies are using "plastic neutrality" and similar credit schemes to claim that they are not contributing to plastic "pollution". There are currently no bans or restrictions on plastic credits at the global or national level on the use of plastic credits. The GPT needs to have provisions to prohibit the use of plastic "neutrality" and offset schemes as an eligible way to claim plastic reduction.
- 8. Take a strong stance on demanding freedom from plastics corporate influence and green washing. Petrochemical and plastics industries have a bad history of promoting the false information that the plastics crisis is entirely associated with consumers' reckless behaviors and ineffective waste management practices. They are even promoting the ideas of technology fix with advanced recycling as a solution to plastics waste. In fact, advanced recycling is a form of advanced pollution and recirculation of toxic chemicals into our environment.
- 9. Take a lead role in establishing a provision in the GPT that guarantees the financial grant support and technology assistance to the least developed countries like Nepal to engage the private sector in the production of plastics substitutes that are environment and nature friendly, creates green jobs and supports the local economy.
- 10. Demonstrate a full solidarity to the plastic life-cycle approach with much focus on the upstream and midstream stages of the cycle as espoused by the majority countries in the negotiations.
- 11. Push for the Extended Producer Responsibility (EPR) provisions to plastic waste management in GPT. The most effective forms of EPR address the entire lifecycle impacts of plastic, and provide that all products on the market are reusable or recyclable. The manufacturers of the plastic products and packaged products should take responsibility to take back the plastic waste created by their product as well as compensate for the waste and waste impacts caused by their products.
- 12. Advocate for the prohibition of open burning, incineration, plastic waste to energy models and chemical recycling, which pose grave risks to human health and the environment. Emphasize the need for a clear consensus on the definitions and principles of circular economy/circularity and recycling within the negotiations.

We present this appeal to the Government of Nepal hoping that its essence will be shared in the upcoming INC-2 forum taking place in Paris, France from 29 May to 2 June 2023. We reaffirm our commitment to extend needful support and solidarity with the Government in this regard.

In Solidarity

#### Nepalese CSOs' Coalition on Plastics



### Annex 2: Report on the Multisector Dialogue on Occupational and Chemical Safety Issues in Nepal

This report also highlights the issues of plastic, high mountain plastic pollution, toxic recycling, single use plastic pollution, and toxic plastic children's toys.

