

## ECONOMY V. ENVIRONMENT

### *Single Use Plastic (SUP) Ban in India*

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[**Abstract:** *Plastic is estimated to outnumber the fishes in the oceans by 2050. Day by day increasing of plastic use, plastic waste generation and its non-degradable nature posed serious threat to the future of the global environment. The increasing use of Single Use Plastic (SUP) and irresponsible behaviour of manufacturers and consumers in its disposal, further increased the danger level. Governments across the world started completely banning SUP in the 21<sup>st</sup> century, but the advent of covid-19 again converted the whole scenario into plastic pandemic. During the pandemic demand and supply graph of SUP hiked, and the countries like India started benefitting out of the same. The China's plastic waste import ban also became a lucrative opportunity for India to develop the recycling imported plastic waste units. Amidst the entire story of environmentalists v. economists, the Government of India's approach towards SUP ban in Pre & Post Covid-19 became a much-awaited debate. The Government of India is more concerned about towards nurturing responsible SUP consumer and pro-plastic industry. The result is the increasing awareness campaigns to change the consumer attitude towards SUP handling and permitted the recycling units to import plastic waste in special economic zones and other specified areas by introducing Extended Producers Responsibility (EPR). The article analyzes the approach of the Government of India towards SUP ban, economic growth, environmental protection and sustainable development.]*

## INTRODUCTION

Plastics have subsumed our life in ways more than one and though there are advantages to using plastic the environmental costs far outweigh these advantages. It is often that we come across news such as – *veterinarians in Tamil Nadu cleared out 52 kgs of non-biodegradable plastic from a cow's stomach,*<sup>1</sup> *a big fish which lives on other marine life is found with a stomach full of plastic waste on the ocean shores of Maldives.*<sup>2</sup> These kinds of stories will not end until the usage of plastic is stopped. But the more insightful question is whether we can imagine our life without plastic? You may be in any corner of the world; single use plastic (SUP) would reach to you in one or the other way. It would be no exaggeration to say that humans have become addicted to single use plastic. According to UN Environment, *around the world, one million plastic drinking bottles are purchased every minute, while up to 5 trillion single-use plastic bags are used worldwide every year. In total, half of all plastic produced is designed to be used only*

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<sup>1</sup> B. Kolappan, *Tamil Nadu veterinary university surgeons remove 52 kg of plastic from cow in Chennai*, THE HINDU (Oct. 19, 2019), available at – <https://www.thehindu.com/sci-tech/science/tamil-nadu-veterinary-university-surgeons-remove-52-kg-of-plastic-from-cow-in-chennai/article29746204.ece> (last visited – Aug. 20, 2020).

<sup>2</sup> Danyal Hussain, *Giant fish that preys on other marine life is found with a stomach filled with plastic waste off the Maldives*, MAIL ONLINE (Sep. 03, 2019, 1719 hrs.) available at – <https://www.dailymail.co.uk/news/article-7423299/Giant-fish-stomach-filled-plastic-waste-Maldives.html> (last visited – Aug. 20, 2020).

*once – and then throw away. Plastic waste is now so ubiquitous in the natural environment that scientists have even suggested it could serve as a geological indicator of the Anthropocene era.*<sup>3</sup>

Statistically, 70% of plastic packaging products produced across the globe are converted into plastic waste within a short span.<sup>4</sup> Since, the 1950s, growth in the production of plastic has largely outpaced that of any other material, with a global shift from the production of durable plastics to SUP. According to the UN Environment Programme, 2018 on single-use plastic, *the production of plastic is largely reliant on fossil hydrocarbons, which are non-renewable resources. If the growth in plastic production continues at the current rate, by 2050 the plastic industry may account for 20% of the world's total oil consumption*.<sup>5</sup>

According to the reports for year 2017-18, Central Pollution Control Board (CPCB) has estimated that India generates approximately 9.4 Million tonnes per annum plastic waste (amounting to 26,000 tonnes of waste per day) and out of this approximately 5.6 Million tonnes per annum plastic waste is recycled (i.e.15,600 tonnes of waste per day) and 3.8 Million tonnes per annum plastic waste is left uncollected or littered (9,400 tonnes of waste per day). Though 60% is recycled, and most of it by the informal sector, the recycling rate in India is considerably higher than the global average of 20%. But the fact that over 9,400 tonnes of plastic waste is either landfilled or ends up polluting streams or ground water sources is of major concern for a populous country like India.<sup>6</sup>

On 15<sup>th</sup> August, 2019, Mr. Narendra Modi, the Prime Minister of India, in his independence-day speech highlighted the importance of handling the single use or disposable plastic pollution and emphasized upon its ban. Quoting Mahatma Gandhi, Mr. Modi promised to end single use plastic by 2022, as it is harmful to hygiene, protection of environment and protection of life.<sup>7</sup> Accordingly 15 States and 4 Union Territories banned SUP.

The entire plans of banning or reducing the use of single use plastic came to a halt with the outbreak of Covid-19. Owing to the nature of easily transmissible form of the virus from one person to another, the world witnessed the increasing use of the SUP. The increased use of masks, PPEs, online shopping and take away services, hyped the used of SUP. The improper disposal of plastic waste further increased the problem of pollution.

The increasing utility of SUP can choke waterways triggering natural disasters. Though India decided to phase out the SUP, COVID-19, economic slowdown, increasing unemployment, etc., forced the central government to revise their decision to put the blanket ban. The situation can be rightly defined as a conflict between economy and environment. The mooted questions in this regard are –*how to balance the economy and environment, and ban SUP, to move in the direction of sustainable development? What possible strategies can be adopted by the Government of India to ban SUP, if not in 2022, at least by 2025?*

<sup>3</sup> UNEP (2018), *Our Planet is drowning in plastic pollution – it's time for change*, available at – <https://www.unenvironment.org/interactive/beat-plastic-pollution/> (last visited – Aug. 20, 2020).

<sup>4</sup> Approximately 9.4 million TPA plastic waste is generated in the country, which amounts to 26,000 TPD.

<sup>5</sup> United Nations Environment Project, *Single Use Plastics: A Roadmap for Sustainability* (2018) available at – [http://www.indiaenvironmentportal.org.in/files/file/singleUsePlastic\\_sustainability.pdf](http://www.indiaenvironmentportal.org.in/files/file/singleUsePlastic_sustainability.pdf) (last visited – Aug. 20, 2020).

<sup>6</sup> Ministry of Housing & Urban Affairs, Government of India, *Plastic Waste Management: Issues, Solutions & Case Studies* (March 2021), available at – <http://164.100.228.143:8080/sbm/content/writereaddata/SBM%20Plastic%20Waste%20Book.pdf> (last visited – Aug. 20, 2020).

<sup>7</sup> Thomson Reuters, *India's PM Modi exhorts nation to end usage of single-use plastic by 2022*, REUTERS (Oct. 03, 2019) available at – <https://www.reuters.com/article/us-india-pollution-plastic/indias-pm-modi-exhorts-nation-to-end-usage-of-single-use-plastic-by-2022-idUSKBN1WH29C> (last visited – Aug. 20, 2020).

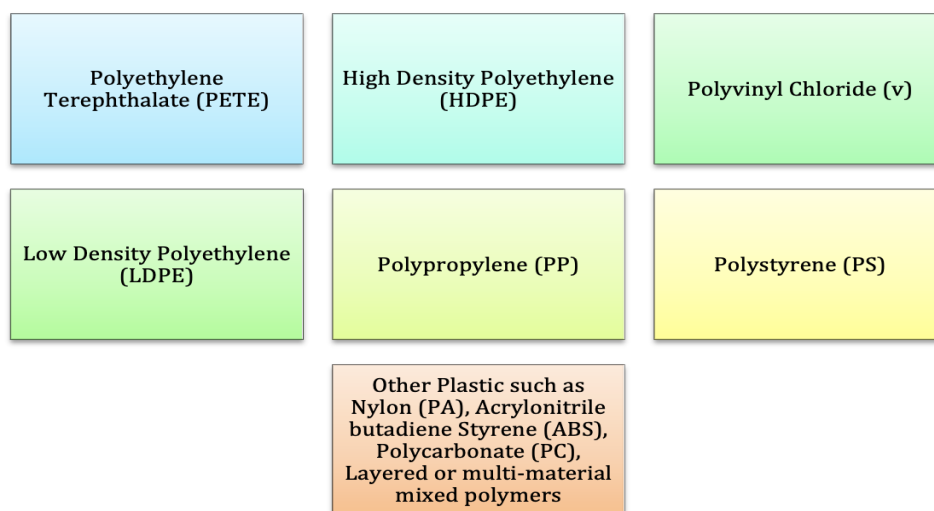
In this regard, the research paper focuses on understanding the SUP industry & its contribution to the Indian economy, pollution caused by SUP and its effects on environment in Post COVID-19 era, existing legal framework towards SUP pollution, analysis of the Government of India's approach towards balancing economy and environment, issues and challenges in moving towards sustainable development and suggestions if any.

### SINGLE USE PLASTICS (SUPS)

Plastic is a lightweight, hygienic and resistant material which can be moulded in a variety of ways and utilized in a wide range of application.<sup>8</sup> Single-use plastics are referred to as disposable plastics, which are commonly used for plastic packaging. This includes grocery bags, food packaging, bottles, straws, containers, cups, cutlery, etc. Majority of these items are non-degradable and manufactured through informal processes.

According to Article 3(1) of the EU Directive on SUPs,<sup>9</sup> *plastic means a material consisting of a polymer, to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified.*

United Nations Environment Report (2018) defines SUP as plastic, 'items intended to be used only once before they are thrown away or recycled'.



### Types of plastics

The SUPs are designed to be disposed after single usage. SUPs can include disposable plastic items often used in packaging consumer products, cosmetics, and healthcare items, etc. Article 3(2) of EU Directive on SUPs provides that, *SUPs mean a product that is made wholly or partly from plastic and that is not conceived, designed or placed on the market to accomplish, within its*

<sup>8</sup> *Supra*, note 5.

<sup>9</sup> EU Directive on the Reduction of the Impact of Certain Plastic Products on the Environment 2019/904

*life span, multiple trips or rotations by being returned to a producer for refill or re-used for the same purpose for which it was conceived.*<sup>10</sup>



## Indian Plastic Industry

In India, a wide variety of plastics raw materials are produced to meet the raw material needs of different sectors of the economy. These polymeric materials are broadly categorized as commodity, engineering, and specialty plastics.<sup>11</sup> Commodity plastics are the major products that account for bulk of the plastics and in turn for petrochemical industry. While engineering and specialty plastics are plastics that exhibit superior mechanical and thermal properties in a wide range of conditions over and above more commonly used commodity plastics and are used for specific purpose. These include styrene derivatives (PS/EPS & SAN/ABS), polycarbonate, poly methyl methacrylate, polycarbonates, poly oxy methylene (POM) plastics etc. There are three broad types of PE, viz. low-density Polyethylene (LDPE), High-density Polyethylene (HDPE) and Linear Low-density Polyethylene (LLDPE).

India is the largest manufacturer of Lami Tubes, largest Rotomolded Tank market in the world, largest manufacturer of BOPP tubes, Polybenzimidazole (PBI) – only producer in the world, 2<sup>nd</sup> largest exporter of FIBC bags and 5<sup>th</sup> largest producer of PP.<sup>12</sup> India produces 25940 metric tonnes of plastic per day. About 90% of this comprises thermoplastic, such as PET and PVC, which is recyclable. The remaining types of plastics belong to thermoset and other categories such as Sheet Moulding Compound, Fiber Reinforced Plastic and multi-layer thermocolare non-recyclable.<sup>13</sup>

<sup>10</sup> *Id.*

<sup>11</sup> National Research Council, POLYMER SCIENCE AND ENGINEERING: THE SHIFTING RESEARCH FRONTIERS 65 (1994).

<sup>12</sup> Momentum in India: Swiss SMEs Programme, Opportunities in the Indian Plastics Sector, (June 2020), available at <https://missp.ch/docs/1591251360Opportunities%20in%20the%20Indian%20Plastics%20Sector.pdf> (last visited, Sep. 01, 2020).

<sup>13</sup> Statement of Objects and Reasons, The Ban on Single-use Plastic Bill, 2019

INDIA'S PLASTIC MANUFACTURING CAPACITY (*figures in KTA*)<sup>14</sup>

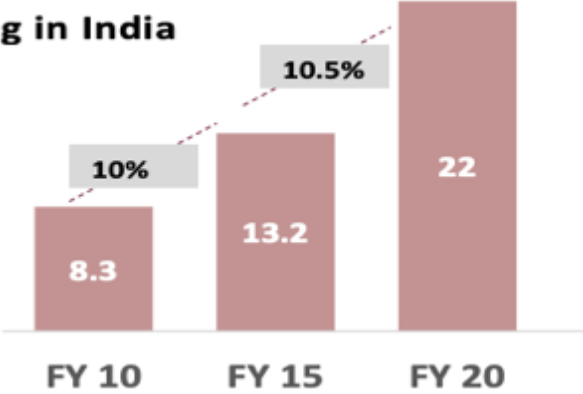
<i>Polymer</i>	<b>2016-17</b>	<b>2019-20</b>
<i>PS/EPS</i>	599	599
<i>LDPE</i>	205	605
<i>LLDPE</i>	1700	2300
<i>HDPE</i>	2855	2855
<i>PP</i>	4970	5670
<i>PET</i>	2072	2072
<i>PVC</i>	1435	1435
<i>Others</i>	252	252

The Government has been taking proactive steps to increase plastic production in India by setting up the following objectives:

- √ *Increase the competitiveness, polymer absorption capacity and value addition*
- √ *Achieve sustainable growth through waste management, recycling*
- √ *Increase investments in the sector through additions in capacity and production*
- √ *Adopt a cluster development approach*

<sup>14</sup> Plastic Foundation, *Report on the Indian Plastics Industry* (2018) available at – <https://plastindia.org/pdf/Indian-Plastics-Industry-Report-2018-2.pdf> (last visited, Sep. 01, 2020).

### Plastic Processing in India (MMTPA)



Source<sup>15</sup>



### Plastic Waste

Once the plastic is discarded after its utility, it is known as plastic waste. Majority of the plastic waste take 450 years to break down or do not decompose at all and remain suspended in the environment. According to the UNEP Report (2018), *plastic pollution is a defining challenge of*

<sup>15</sup> *Supra*, note 8.

our times... Single-use throw away plastics are the biggest contributor every year, millions of plastic bags end up in the environment, thus polluting soil, water bodies, rivers, oceans.<sup>16</sup>




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**Plastics are made from oil with a highly polluting production process. Plastics just do not dissolve; they break down into micro-particles that circulate in the environment. A single water bottle can take up to 1000 years to break down.**

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Asia is the world leader in plastic pollution. The Philippines alone dumped over 1 billion pounds of plastics into our oceans. That is over 118,000 trucks worth. In 30 Years, there is likely to be more plastic in our oceans than fish. 83% of our drinking water contains plastic.

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Studies show that consuming plastic could lead to cancer, effects on hormone levels, and heart damage. Plastics have been found in the blood of even newborn babies

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Over 600 marine species are affected by plastics. Nearly 45000 marine animals have ingested plastics and 80% were injured or killed. Plastics can pierce animals from inside or cause starvation, entanglement, loss of body parts and suffocation.

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As plastics travel with ocean currents, an island of trash called the “Great pacific Garbage Patch” has been created. There are now many islands of trash in our seas.

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There are 8 million tonnes of plastic waste entering into the ocean every year, and as on today the total plastic present in ocean amounts to 150 million tonnes. Plastic packaging accounts for 62% of all items recovered in coastal clean-up efforts. In 2014, one fish of 5 kg weight was found with 1kg plastic in stomach and by 2050 it is estimated that there will be more plastic waste than fish in the oceans.<sup>17</sup>

Per capita plastic products consumption (June 2020)	
Country	Kg/person
USA	109
Europe	65
China	38
Brazil	32
India	11

Source<sup>18</sup>

According to Central Pollution Board (CPCB) Report 2017-18 (referred above), it is estimated that India generates approximately 9.4 Million tonnes per annum plastic waste of which 3.8 million tonnes remain littered.<sup>19</sup> Plastic waste is generated for two reasons, *one* is tremendous attraction to plastic and the *second* is behavioural propensity of over-consuming, discarding, littering, and polluting.

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<sup>16</sup> *Supra*, note 3.

<sup>17</sup> *Supra*, note 4.

<sup>18</sup> *Supra*, note 8.

<sup>19</sup> *Supra*, note 6.

The everlasting nature of the plastic do not allow it to biodegrade. It breaks into smaller and smaller pieces and when it is untreated for years, especially when dumped into landfills, the toxic chemicals from plastics drain out and seep into groundwater, flowing downstream into lakes and rivers. According to World Economic Forum, 8 million tonnes of plastic waste enter into oceans every year.<sup>20</sup> Practically, there is no natural ecosystems on earth where there is no footprint of plastics. Chemicals added to plastics are absorbed by human bodies and are found to alter the hormones or have potential health effects.

### **SUP ban in India**

For taking effective steps towards regulating plastic manufacturing, usage, and waste generation, the Government of India introduced the Plastic Waste Management Rules, 2016, where plastic carry bags and sheets less than fifty microns in thickness have been prohibited. A complete ban on sachets using plastic material used for storing, packing or selling tobacco and pan masala.

On August 15, 2019, Mr. Narendra Modi, Hon'ble Prime Minister of India had urged people and government agencies to take the first big step on October 2, 2019 towards freeing India of SUP. The following multi-pronged strategy has been adopted for implementing the announcement of Hon'ble Prime Minister on World Environment Day in 2018 to phase out SUP by 2022.

- ◆ Awareness generation and behavioural change
- ◆ Regulatory regime for phase out of identified SUP items under Plastic Waste Management (PWM) Rules, 2016
- ◆ Engagement with central ministries, State Governments, Local bodies for better enforcement and wider penetration of alternatives to single use plastic items
- ◆ Engagement with industry and industry associations for assistance and capacity building, and
- ◆ Strengthening of institutional mechanism for enforcement of PWM rules.

On the basis of the report of the Expert Committee constituted by Department of Chemicals and Petrochemicals, a list of SUP items to be phased out by 2022 have been identified. Ministry of Environment, Forest and Climate Change issued 'Standard Guidelines for Single-use plastic' entailing waste management system improvements, legal options to prohibit items through regulatory measures, eco-friendly alternatives, social awareness and public education on 21<sup>st</sup> January 2019 to all States/UTs and Ministries.<sup>21</sup>

The Government of India came out with the Ban on Single-use Plastic Bill, 2019. The Bill aims at a complete ban on the manufacture, use, distribution, selling, or trading of single use plastic items. Section 2(c) of the Bill defines plastic as follows: '*Plastic means a synthetic material with high polymer as an essential ingredient such as polyethylene terephthalate (PET), high density polyethylene, vinyl, low density polyethylene, polypropylene, polystyrene resins or multi-materials like acrylonitrile butadiene styrene, polyethylene oxide, polycarbonate or polybutylene terephthalate*'. Section 2(f) provides, '*Single-use Plastic means any disposable plastic item which is made for a single use and is either thrown out or recycled*'.

Section 2(d) of the bill defines the term recycle as – *Recycle means the process of recovering scrap or waste plastic and reprocessing the material into useful products*. The bill further

<sup>20</sup> World Economic Forum and Ellen MacArthur Foundation, *The new plastics economy: rethinking the future of plastics*. World Economic Forum, Geneva, WEF (2019) available at – <https://www.ellenmacarthurfoundation.org/publications/the-new-plastics-economy-rethinking-the-future-of-plastics> (last visited, Sep. 01, 2020).

<sup>21</sup> Indian Parl. Deb., Lok Sabha No. 16 (Feb 02, 2021) (remarks of Shri Prakash Javadekar on Starred Question No. 173).



provides that – *Notwithstanding anything contained in any other law for the time being in force, no person shall use, stock, distribute, manufacture, sell or trade in any single-use plastic item except for such exigent reasons as may be prescribed*.<sup>22</sup> The bill allowed only the following to be manufactured and used:

- ◆ The polyethylene PET bottles of drinking water having liquid holding capacity of one liter or more shall be allowed to be used temporarily for a period of one year from the date of commencement of the Act; and
- ◆ Packaging materials for food and medicinal packaging made up of more than fifty-micron thickness plastic and of 20% recyclable plastic material with manufacturer’s details elaborately printed on it shall be allowed to be used for a period of one year from the date of commencement of the Act or until notified otherwise by the CPCB.

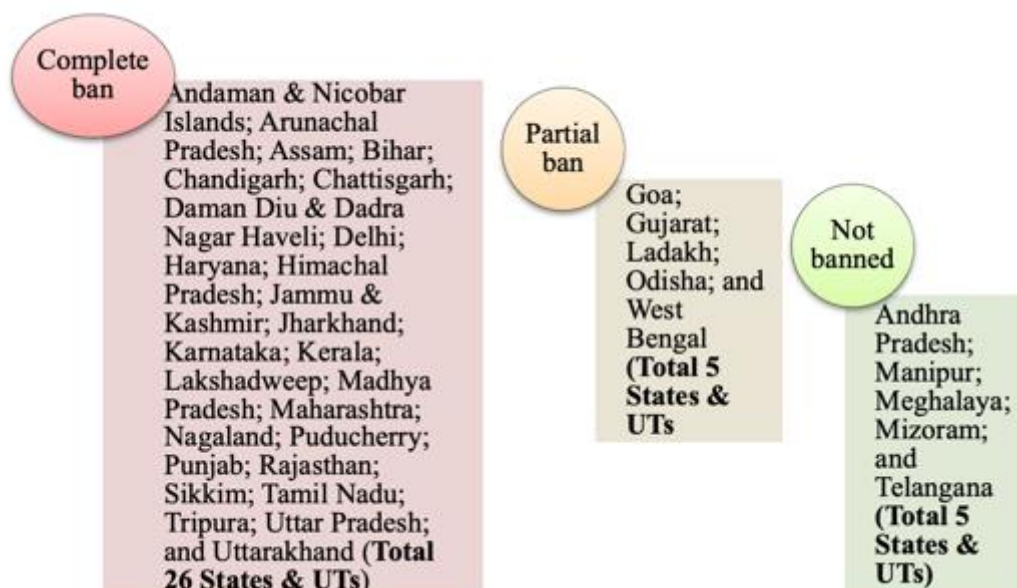
The bill requires the State Governments to ensure complete ban on the production and use of plastics except for exigent reasons and increase recycling and reuse of SUP items already in the environment to the extent possible. The bill also requires the State Governments to take necessary measures to promote sustainable alternatives to SUP by providing conducive environment for research and development of bio and renewable resources as a sustainable alternative to plastic usage and organizing public awareness programs to avoid usage of SUP items. The bill also prescribes the following penal charges –

Use of plastic items for the first time	Rs.500/- fine
Littering plastic items for the first time	Rs.500/- fine which may extend up to Rs.5,000/-
Using and Littering plastic items for second time	Rs.10,000/- fine
Using and littering plastic items for third time	Rs.25,000/- fine and imprisonment for a term which may extend up to three months
Producing plastic material	Rs.5,00,000/- fine which may extend up to Rs.50,00,000/- in addition to sealing of the manufacturing unit at once and imprisonment for a term which shall not be less than five years which may extend up to fifteen years
Using plastic as a packaging or wrapping material	Rs.5,00,000/- which may extend up to Rs.50,00,000/- and imprisonment for a term which shall not be less than five years which may extend up to fifteen years

The status of state-wise ban on SUPs is represented below (as on 12.02.2021):<sup>23</sup>

<sup>22</sup> Ban on Single-use Plastic Bill, 2019, S.3.

<sup>23</sup> *Supra*, note 21.

**Plastic****Pandemic**

Increased use of SUP in medical and packaging fields and plastic waste and substantial decrease of recycling has had a huge impact on the environment of India during the pandemic. The demand in the medical sector demand for face shields, gowns, vinyl gloves, disposable bags, tube, masks etc. increased at an alarming rate. Most of these products used to save the lives amid Covid-19 pandemic are either totally or partially made of plastic. Further, there is usage of single use glasses and cutlery to avoid the spread of virus. Plastic is also used as a thickening agent in alcohol in hand sanitizer industry. Therefore, there has been a substantial increase in the usage of plastic during the pandemic.

Delivery of both food and products (including groceries) require packaging. The plastic packaging during covid-19 pandemic gave the advantage of being cleaned and washed, creating a protective barrier in food, in addition to increasing shelf time and security.<sup>24</sup>

There was pressure on the government to address the Covid-19 challenge which obviously shifted the focus from ban on SUP. Amidst such pressures, a temporary relaxation of SUP has been brought in to accommodate the emergency period. But the side effects of such relaxation are to bring back the SUP production, manufacturing, usage, and waste scenario to square one. The increased plastic manufacturing industry to cater to the covid-19 needs, increased usage of plastic by even common households, bringing back the throw away culture, increased online shopping and e-commerce markets etc., led to the accretion of plastic waste comprising of thin films, foams, and multi layered plastic which have low recyclability.

<sup>24</sup> FabiulaDanielli Bastos de Sousa, *Pros and Cons of Plastic during the COVID-19 Pandemic*, 5(4) RECYCLING 27 (2020) available at – <https://www.mdpi.com/2313-4321/5/4/27/pdf> (last visited Sep. 03, 2020).



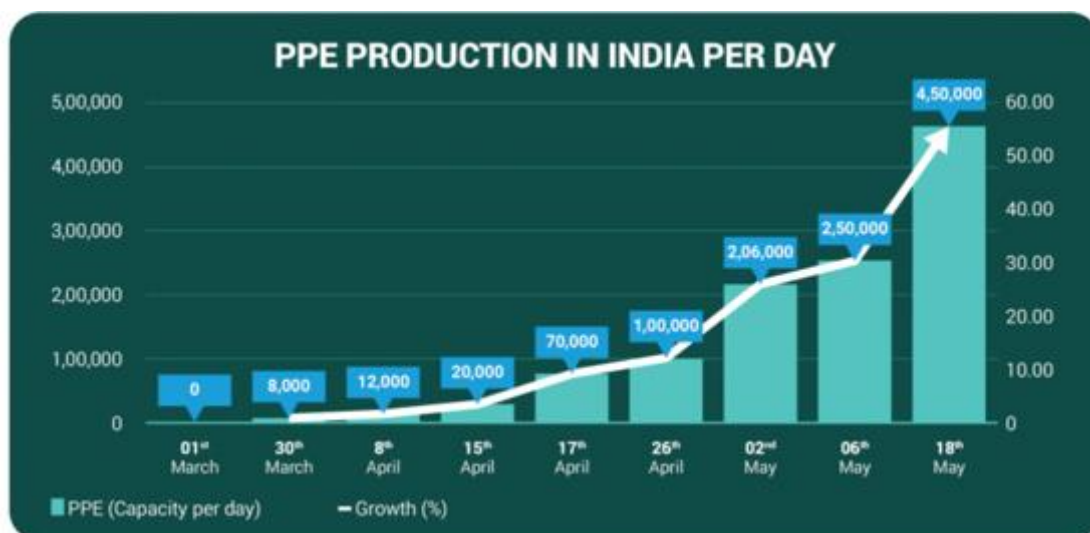
### ECONOMY V. ENVIRONMENT – POST COVID 19 SCENARIO

The history has evidenced the government’s dilemma to choose between the economy and environment. Plastic is versatile, lightweight, flexible, moisture resistant, strong and relatively inexpensive.<sup>25</sup> Basically, plastics are not bad and consist of many redeeming features. The characteristics of plastic such as durability, low maintenance, and light weight reduce the material replacement, shipping energy. The ability of plastic to formulate into glue products, permits for the creation of engineered lumber and sheet products from recycled wood. It’s formulation into superior insulation and sealant products enhance the energy performance of the structures. Covid-19 Pandemic halted the SUP ban mainly for two reasons, *one* the increased demand for PPE suits, masks and gloves for protection against Covid-19 virus and *second*, to deal with the economic effects of lockdown on the country’s GDP. Patently, the Government in India was faced with the dilemma again – environment v. economy, and in this fiasco the latter became the prime moving force for the powers that be.

Pandemic dented the war against plastic. India after realizing the critical role of PPE in combating pandemic, ventured into the production of the PPE kits. Starting from zero, India is now producing nearly 4.5 lakh PPE kits every single day. In 60 days, the PPE industry in India witnessed 56 times growth.<sup>26</sup>

<sup>25</sup> *Supra*, note 4.

<sup>26</sup> Remya Lakshmanan & Mishika Nayyar, *Personal Protective Equipment in India: An INR 7,000 Cr industry in the making*, INVEST INDIA (MAY 25, 2020), available at– <https://www.investindia.gov.in/siru/personal-protective-equipment-india-1NR-7000-cr-industry-in-the-making#:~:text=India%20is%20the%20World's%20,been%20placed%20to%20domestic%20manufacturers> (last visited Sep. 03, 2020).



Government of India time and again mentioned that the plastic industry is making a significant contribution to the various key sectors such as automotive, construction, electronics, healthcare, textiles and FMCG, etc., Especially packaging industry became the 5<sup>th</sup> largest sector in India's economy during the Covid-19 pandemic period. Global per capita consumption of packaging in terms of value estimated is US\$ 115 per person per year; and for India, it is US\$ 55 per person per year.

Looking at the economic significance of the plastic industry and difficulties in the complete ban of the SUP, India started looking into the plastic waste management, consumer awareness, and sustainable development of plastic industry by strengthening the recycling options. Rather focusing on banning the plastic production, the Government of India focused on reduction in SUP, recycling and creating awareness. Mr. Venkaiah Naidu, the Vice-President of India in his speech stressed on following the best practices of plastic waste management and stressed upon the importance of 3Rs – Reduce, Reuse, and Recycle.

Despite of the side effects, 30,000 plus plastic processing units are employing over four million people across the country and is playing an important role in the Indian economy. The important question, therefore, is whether to overlook the environment, and prioritize the economy, or adopt a *vice-versa* approach, or to adopt a sustainable development policy balancing both environment and economy.

China enjoyed economic advantage by developing trade on the plastic waste for three decades. China used to import 70% of the world's plastic waste from nearly 117 countries. The plastic waste industry in China contributed a key role in the economic growth of the country.<sup>27</sup> In 2017, China banned the import of plastic waste and focused on recycling of the domestic plastic waste. This created a challenge for the other countries who used to export plastic waste to China. Their unpreparedness to handle the large volumes of recyclables halted their recycling processors to find the new markets. 111 million tons of plastics are looking to find a new place to be processed or otherwise disposed of as a result of China's ban.

Before China's ban on import of plastic waste, India was the 10<sup>th</sup> largest importer of plastic scrap. It was found that the China's ban on the import of plastic waste was diverted into India, especially PET bottle scrap and flakes had quadrupled between 2016-17 and 2017-18. Despite of the ban on the import of plastic waste, particularly PET bottles in 2015, the 2016 amendment

<sup>27</sup> Meng X. and Yoshida T., *The Impact Analysis of Waste Plastic Trade between China and Japan – From Policy View* in DESIGN FOR INNOVATIVE VALUE TOWARDS A SUSTAINABLE SOCIETY Matsumoto M., et. al. eds., 2012).

to the Hazardous Waste (Management & Trans-boundary Movement) Rules allowed the agencies located in Special Economic Zones to import plastic waste.<sup>28</sup>

Recognizing the presence of sizable domestic plastic waste recycling industry in India and the harm which may be caused to it, if there is no access to high-quality material from overseas sources, the Government of India amended the rules in such a way that the import of plastic waste may be allowed to the designated areas and special zones, which are not part of Indian soil and can process the imported plastic waste in those areas, without them technically entering into the country.<sup>29</sup>

## CONCLUSION

The dilemma between environment and economy is not unique to India, it's been prevalent in all countries of the world.<sup>30</sup> The economic prospects of plastic industry made the man and the governments to ignore the future environmental repercussions. After maximum exploitation and expansion of the industry, now the world started recognizing the upcoming environmental disaster resulting out of plastic, especially SUP and now taking steps to control the future damage.

The industries, employment opportunities, lives of the people who are engaged in informal sector of plastic waste collection etc., will be hampered, if any sudden or unexpected step is taken. But the same cannot be taken as a reason for not to ban the SUP, as the degree of damage is going to be higher than the economic loss. The increasing loudness of the environmentalist's voices forced the Government's take immediate steps to control the damage and restore the environmental peace.

The increasing use of SUP in Covid-19 pandemic raising more alarming situation amidst the ban on import of plastic waste by China and increasing dumping of plastic in landfills and other areas. Though India is interested in taking the advantage of China's ban on import of plastic waste, there are several questions raised about the clean environment and stringent pollution regulations. National Green Tribunal (NGT) directed the Central Pollution Control Board (CPCB) to ensure that no plastic bag less than 50 microns of thickness be manufactured, stocked, sold and used in the country. The NGT also asked the CPCB to ensure that no unregistered plastic manufacturing and recycling unit is in operation and no unit is running in non-confirming or residential areas.<sup>31</sup>

<sup>28</sup> Amrit B.L.S., *How are India's Plastic Waste Imports Increasing?* THE WIRE (Jan. 23, 2019) available at – <https://thewire.in/environment/plastic-import-india-pet-bottles-ban-increase> (last visited – Aug. 20, 2020).

<sup>29</sup> Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, Rule 12(6A) which specifies the import of post-industrial and pre-consumer polyethylene wastes, has been inserted, namely: *The import of 'post-industrial or pre-consumer polyethylene wastes' and 'Polymethyl Methacrylate' mentioned at column (2), against Basel Number B3010 in Schedule VI, is permitted to units in Special Economic Zones and Export Oriented Units notified by the Central Government.* Rule 12(6B), specifies the requirement for the post-industrial and pre-consumer polyethylene wastes, has been inserted namely: *'the import of 'post-industrial or pre-consumer polyethylene wastes' shall be permitted with a requirement of at least fifty percent exports in terms of tonnage for 18 months from the date of this notification or till a decision is taken on the basis of review or audit undertaken to ascertain the effect of such import whichever is earlier'.* See Hannah Zuckerman, *India Reopens Access to Recovered Polyethylene*, SCRAP NEWS (Feb. 8, 2021) <https://www.scrap.org/india-reopens-access-to-recovered-polyethylene/> (last visited – Feb. 20, 2021).

<sup>30</sup> B. Giddings, B. Hopwood and G. O'Brien, *Environment, Economy and Society: Fitting them Together into Sustainable Development*, 10 SUSTAINABLE DEV. 186 (2002) available at – [https://download.clib.psu.ac.th/datawebclib/e\\_resource/trial\\_database/WileyInterScienceCD/pdf/SD/SD\\_4.pdf](https://download.clib.psu.ac.th/datawebclib/e_resource/trial_database/WileyInterScienceCD/pdf/SD/SD_4.pdf) (last visited - Sep. 01, 2020).

<sup>31</sup> *Central Pollution Control Board v. State of Andaman & Nicobar & Ors.* 2019 SCC OnLine NGT 162.

After NGT directions, The Ministry of Environment, Forest and Climate Change came out with a Guideline document, '*Uniform Framework for Extended Producers Responsibility*, (June 2020) under Plastic Waste Management Rules, 2016. In the document, the Extended Producer Responsibility is defined as a *policy principle to promote total life cycle environmental improvements of product systems by extending the responsibilities of the manufacturer of the product to various parts of the entire life cycle of the product, and especially the take-back, recycling and final disposal of the product.*'<sup>32</sup> The document also provides for Producer Responsibility Organization (PRO) based model and Plastic Credit Model to support plastic recycling while also promoting the ease of doing business for all stakeholders of the plastic industry.

On 13<sup>th</sup> January 2021, NGT directed the Ministry of Environment and Forests to finalize the EPR regime for plastic waste within three months saying that steps taken by it were too slow.<sup>33</sup>

Though there is complete ban on SUP, during pandemic there is visibility of use of SUP in most of the sectors. After 2019 announcement by Mr.Narendra Modi, though the consumers made to mend their behaviour towards the use and disposal of plastic waste, the whole efforts went back to square one. By adopting the sustainable growth model to plastic industry, Government of India is focusing on the strategies for sustainable plastic industry in India with the three-pronged approach – dematerialize and design out barriers to recyclability, extend the useful life of plastic through reuse, and improve collection and recycling system.

The following steps have been taken up by the Government of India to sensitize people against the use of SUP leading to its gradual elimination are as follows:

- ◆ Three phase campaign 'Swachhta Hi Sewa' – citizens collected SUP from the houses, streets, etc., and deposited the waste at designated locations for recycling;
- ◆ Beach cleaning drive across 50 beaches;
- ◆ Under the National Green Corps (NGC) programme, one lakh schools were identified as Eco-clubs and nearly thirty lakh students were involved in various environment protection and conservation activities including plastic waste management; and
- ◆ Extensive interactions by the Ministry and CPCB with the industry and industry associations about the phasing out SUP.

The steps may be small but surely appears to be in the right direction. However, the Government needs to strengthen its emphasis on minimising the SUP while also ensuring a stronger hold to minimise production of such components albeit at the cost of the economic development.

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<sup>32</sup> Ministry of Environment, Forest and Climate Change (June 2020), Uniform FRAMEWORK FOR EXTENDED PRODUCERS RESPONSIBILITY (Under Plastic Waste Management Rules, 2016) available at – <http://moef.gov.in/wp-content/uploads/2020/06/Final-Uniform-Framework-on-EPR-June2020-for-comments.pdf> (last visited Sep. 03, 2020).

<sup>33</sup> NGT directs government to finalize EPR regime within 3 months, says plastic waste serious hazard, the Hindu, January 15, 2021.