

**GOVERNMENT OF INDIA (BHARAT SARKAR)
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)
(RAILWAY BOARD)**

No. 2019/EnHM/11/01/Plastic waste Mgmt

New Delhi, Dt: 14.10.2022

**The General Managers,
All Indian Railways/Production Units,
Director General, RDSO, NAIR,
Directors/All Central Training Institutes.**

Sub: Availability and Promotion of Alternatives to banned single-use plastic items.

In order to map the availability of alternatives to banned single-use plastic items and to provide assistance to the micro, small and medium enterprises transitioning away from manufacturing of banned single-use plastics to alternatives, MoEFCC had constituted a Study Group on 12th July, 2022. The Study Group has provided seventeen recommendations covering measures to (i) bring in technology and innovations, (ii) facilitate credit availability and access, (iii) promote availability and adoption, and (iv) build capacity of MSMEs.

The report and implementation schedule of the study group on 'Availability and Promotion of Alternatives to banned single-use plastic items' are enclosed herewith to follow the recommendations of the study group, if feasible.

Encl: As above.



**(Shailendra Singh)
Exe. Director/ME (EnHM & Proj.)
Railway Board**

Copy to:- ED/RS(G), Railway Board for further necessary action.

Recommendations of the Study Group mapped to the concerned Ministry/Agency for implementation

Measures to be taken thematic area-wise	Concerned Ministry / Department
<u>1. Measures to bring in technology and innovations</u>	
<ul style="list-style-type: none"> Expos/Conferences on alternatives to banned single use plastic items and on start ups in the area of alternatives to plastic need to be organized for their accelerated penetration in the market and uptake by citizens. 	<ul style="list-style-type: none"> MoEFCC in collaboration with concerned central ministries, State Governments as appropriate
<ul style="list-style-type: none"> Fast track accreditation of laboratories through NABL for testing compostable and biodegradable plastic as per BIS standards mentioned in Plastic Waste Management Rules, 2016, as amended. 	<ul style="list-style-type: none"> DPIIT
<ul style="list-style-type: none"> DPIIT through Startup India Mission and schemes of the Department prioritize support to startups working in the area of alternatives to banned single use plastic items including new business models. 	<ul style="list-style-type: none"> DPIIT
<ul style="list-style-type: none"> Provide support to startup and innovators through various schemes / Programme of the Government including Startup India Scheme, Invest India and Agnii covering innovation, prototype development, incubation, IPR and commercialization, testing facilities 	<ul style="list-style-type: none"> DPIIT
<u>2. Measures to facilitate credit availability and access</u>	
<ul style="list-style-type: none"> A tool kit needs to be prepared providing information on the nature of support available under different schemes of Ministry of MSME for use by units manufacturing alternatives and those units who have closed down production of banned SUP items. 	<ul style="list-style-type: none"> MoMSME
<ul style="list-style-type: none"> Support for MSME units manufacturing alternatives to banned SUP is to be prioritized under the schemes of Ministry of MSME. 	<ul style="list-style-type: none"> MoMSME
<ul style="list-style-type: none"> The Credit Linked Capital Subsidy Scheme for Technology Upgradation (CLCSS) may be implemented on the ground to allow for smooth transition to eco-friendly alternatives. 	<ul style="list-style-type: none"> MoMSME

<ul style="list-style-type: none"> The availability of finance / grants under ongoing schemes need to made available to units manufacturing alternatives to Single Use Plastic items for procurement of raw materials, capital grant subsidy/ operational cost, market access,. 	<ul style="list-style-type: none"> MoMSME
<ul style="list-style-type: none"> To increase adoption of alternatives to banned single use plastic cutlery items through adjusting GST rates for wide adoption. 	<ul style="list-style-type: none"> GST Council
3. <u>Measures to promote availability and adoption</u>	
<ul style="list-style-type: none"> Establish a database of manufacturers to be displayed on websites of MoEFCC, State Environment Departments, CPCB, SPCBs and PCCs. 	<ul style="list-style-type: none"> MoEFCC
<ul style="list-style-type: none"> KVIC may utilize their presence across the countries to organize Self Help Groups for manufacturing an sale of alternatives including cloth bags. 	<ul style="list-style-type: none"> KVIC, MoMSME
<ul style="list-style-type: none"> Procurement of alternatives to banned single use plastic items especially cutlery items, plates, glasses and straws may be taken up by Government offices, bodies and agencies, on priority especially through defence establishments, railways, hospitality and tourism sector, food processing sector to create demand for the products. 	<ul style="list-style-type: none"> M/o Defence, Railways, Tourism, MoFPI, Aviation
<ul style="list-style-type: none"> In order to provide rapid access to the alternatives manufacturers to be listed on Government E-marke t place (GEM). These alternatives can also be made available through outlets of KVIC, Kendriya Bhandar, Cooperatives under Government. 	<ul style="list-style-type: none"> Government E market place, Central Govt. Employees Consumer Cooperative Society Ltd./MoP,PG&P, Ministry of Cooperation
4. <u>Measures to build capacity</u>	
<ul style="list-style-type: none"> Prioritized capacity building schedule needs to be put in place for units which were earlier manufacturing banned SUP items to leverage the manufacturing capacity of these units and their prior knowledge of the product and 	<ul style="list-style-type: none"> MoMSME

distribution channels / supply chain for manufacturing of alternatives.	
<ul style="list-style-type: none"> Capacity building programmes need to be taken up by Ministry of MSME for units already manufacturing alternatives to make them aware of about various schemes. 	<ul style="list-style-type: none"> MoMSME
<ul style="list-style-type: none"> The capacity building programme should include technologies available for manufacture of alternatives and the government schemes available for technical and financial assistance and market development. 	<ul style="list-style-type: none"> MoMSME, DPIIT, CIPET, CPCB, MoEFCC
<ul style="list-style-type: none"> A country-wide engagement with MSME units needs to be taken up through MSME Development Institutes in each State for capacity building. 	<ul style="list-style-type: none"> MoMSME

Report on

AVAILABILITY AND PROMOTION
OF ALTERNATIVES TO BANNED
SINGLE-USE PLASTIC ITEMS

August 2022



Ministry of Environment, Forest
and Climate Change

Ministry of Environment, Forest and
Climate Change

1. Composition and Terms of Reference of the Study Group

Composition

- i. Additional Secretary, Hazardous Substances Management Division, Ministry of Environment, Forest and Climate Change- Chairman
- ii. Representative of Ministry of Micro, Small and Medium Enterprises, Government of India (of the Rank of Joint Secretary and above)
- iii. Representative of Department for Promotion of Industry and Internal Trade, Government of India (of the Rank of Joint Secretary and above)
- iv. Member Secretary, Central Pollution Control Board
- v. Representative of Central Institute of Petrochemical and Technology (of the Rank of Joint Secretary and above)
- vi. Director, HSMD, Member Convenor

Terms of Reference

- i. Map the list of alternatives available with banned single use plastic items,
- ii. Assess the capacity building, technical and financial assistance needs of MSME units for manufacture of alternatives,
- iii. Suggest measures for promoting manufacture of alternatives by MSME units, including those units which were earlier manufacturing banned SUP items,

The study group was constituted vide office order F. No. 17/6/2021-HSM, dated 11th July 2022.

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Chapter 1: Introduction

2.1 Background

(i) Hon'ble Prime Minister has on various important occasions since 2018 made announcements to eliminate single use plastics by 2022. One of the recent calls for action on eliminating single use plastic was made by Hon'ble Prime Minister on 15th August 2021.

(ii) Further at international fora, India had piloted a resolution on addressing single use plastic product pollution in the fourth United Nations Environment Assembly (UNEA) held in 2019, bringing global focus on the issue of pollution caused due to single-use plastic products. The adoption of this resolution by all Member States was a significant step.

(iii) At the resumed session of fifth United Nations Environment Assembly (UNEA 5.2) held from 28th February 2022 to 2nd March 2022 in Nairobi India engaged constructively with all member states to develop consensus on the resolution for driving global action on plastic pollution by setting up of an intergovernmental negotiating committee for a new international legally binding treaty. The adoption of the resolution 'End plastic pollution: End plastic pollution: Towards an international legally binding instrument' was a historic step taken by 175 countries at the fifth United Nations Environment Assembly.

(iv) At the national level, considering the adverse effect of littered single use plastic items on terrestrial, aquatic and marine ecosystems, the Ministry notified the Plastic Waste Management Amendment Rules, 2021, on 12th August 2021, prohibiting identified single use plastic items, which have low utility and high littering potential, with effect from 1st July 2022. The Ministry of Environment, Forest and Climate Change also notified the Guidelines on the Extended Producer Responsibility for plastic packaging vide Plastic Waste Management Amendment Rules, 2022, on 16th February, 2022.

(v) The ban on identified single use plastic items imposed by the Government of India, is one of the most defining step, towards curbing pollution caused by littered low utility single use plastics. The SUP items banned from 1st July 2022, were identified based upon recommendations of an Expert Committee constituted by the Department Chemicals and

Petrochemicals, in 2019. The banned SUP items were scored based upon quantified criteria of utility and environmental impact by eminent subject experts.

(vi) All thirty-six States/UTs have constituted the Special Task Force under Chairpersonship of Chief Secretary/Administrator for elimination of single use plastics and effective implementation of Plastic Waste Management Rules, 2016. A National Level Taskforce has also been constituted by the Ministry in this regard. Twenty-one State /UT Governments and thirteen concerned Central Ministries/Departments have developed comprehensive action plan for elimination of single use plastics and effective implementation of Plastic Waste Management Rules, 2016.

2.2 Notification prohibiting manufacture, import, stocking, distribution, sale and use of identified single-use plastic items- Plastic Waste Management Amendment Rules, 2021:

The Ministry of Environment, Forest and Climate Change notified the Plastic Waste Management Amendment Rules, 2021, on 12th August 2021, prohibiting manufacture, import, stocking, distribution, sale and use of the following identified single use plastic items, which have low utility and high littering potential with effect from 1st July, 2022:

- (i) ear buds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene [Thermocol] for decoration;
- (ii) plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100 micron, stirrers.

The notification also prohibits manufacture, import, stocking, distribution, sale and use of plastic carry bags having thickness less than seventy-five microns with effect from 30th September 2021, and having thickness less than thickness of one hundred and twenty microns with effect from 31st December, 2022.

Twenty one States/UTs have banned single use plastic items over and above the Plastic Waste Management Rules, 2016, as amended. The State – wise list of banned SUP items is given at **Annexure.**

2.3 Ban on single-use plastic items and alternatives to banned single-use plastic-Global Scenario

(a) Ban on single use plastic items

Pollution due to littered and unmanaged plastic waste is a global environmental challenge. Littered and unmanaged plastic waste from land-based sources finds its way to the water bodies leading to marine plastic litter. Single-use plastic is a major contributor to the littered plastic waste. Keeping in view the environmental impacts of plastic waste, countries across the globe have imposed a prohibition on single-use plastic items. A non-exhaustive list of countries where identified single use plastic items have been banned is given below.

Table 1. Single Use Plastic ban imposed by different countries / regional groupings

S. No.	Country	Items	Date
1.	France	Single-use plastic films and containers for certain fruits and vegetables sold in grocery stores Other plastic materials such as plastic wrap for newspapers and advertising, tea sachets plastic packaging, plastic labels on fruits and vegetables have also been banned Source: https://www.reuters.com/business/environment/france-bans-plastic-packaging-fruit-vegetables-2021-10-11/	Into effect from January 1, 2022.
		Plastic plates, cups, cutlery, drinking straws and cotton buds Source: https://www.rfi.fr/en/france/20200101-france-single-use-plastic-ban-enters-effect-environment-pollution	January 1, 2020
2.	Kenya	Use, manufacture and importation of all plastic bags used for commercial and household packaging	March 2017
		Visitors will no longer be able to carry plastic water bottles, cups, disposable plates, cutlery, or straws into protected areas Source: www.kenyalaw.org/kenya_gazette/gszette/notice/181293	June 5, 2020
3.	UK	Plastic drink stirrers, cotton ear buds, straws, Source: https://www.gov.uk/guidance/straws-cotton-buds-and-drink-stirrers-ban-rules-for-businesses-in-england	July 2021
4.	EU	Single-use plastic products such as cotton bud sticks, cutlery (forks, knives, spoons, chopsticks), plates, straws, beverage stirrers, balloon sticks, food containers made of EPS Source: https://eur-lex.europa.eu/eli/dir/2019/904/oj	July 2021
5.	Scotland	plastic cutlery (forks, knives, spoons, chopsticks), plates, straws, beverage stirrers and balloon sticks; food containers	June 1, 2022

		made of expanded polystyrene; and cups and other beverage containers made of expanded polystyrene, including their covers and lids Source: https://www.gov.scot/news/single-use-plastics-ban/	
6.	Rwanda	Banned plastic carry bags Source: https://www.visitrwanda.com/facts/plastic-ban/	Effectuated from 2008
7.	South Korea	Banned single-use plastic bags Source: https://edition.cnn.com/2018/12/31/asia/south-korea-plastic-bag-ban-intl/index.html	January 1, 2019
8.	China	Prohibits restaurants throughout the country from providing single-use plastic straws and stores in the major cities from providing plastic shopping bags Plastic bags will be banned across all cities and towns in 2022, though markets selling fresh produce will be exempt until 2025. The production and sale of plastic bags that are less than 0.025mm thick will also be banned. The restaurant industry must reduce the use of single-use plastic items by 30%. Hotels have been told that they must not offer free single-use plastic items by 2025 Source: https://www.loc.gov/item/global-legal-monitor/2021-03-23/china-single-use-plastic-straw-and-bag-ban-takes-effect/	January 1, 2021
9.	Australia (new South Wales, Western Australia)	Banned Single-use plastic bags, straws, stirrers, cutlery, polystyrene food and drinks containers, cotton bud sticks, cutlery Source: https://www.corrs.com.au/insights/single-use-plastic-bans-in-australia-where-are-we-and-what-lies-ahead	June 1, 2022
10.	Canada	Prohibit the manufacture, import and sale of single-use plastic checkout bags, cutlery, foodservice ware made from or containing problematic plastics, ring carriers, stir sticks, and straws Source: https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/reduce-plastic-waste/single-use-plastic-overview.html	December 20, 2022

(b). Alternatives to banned single-use plastic

A non-exhaustive list of alternatives with manufacturers country-wise is given below.

Table 2. Alternatives used for prohibited single use plastic items

S. No.	Item Category	Alternative	Manufacturers	Country
1.	Straws Stirrers	Bamboo Straws	Jungle Straws- Food Safe bamboo Straws (https://www.junglestraws.com/#our-straws)	UK
		Stainless Steel straws	Ecostraws-Eco-friendly stainless steel straws https://www.ecostrawz.co.uk/stainless-steel-37-c.asp	UK
		Paper straws & stirrers	Single use alternatives- Paper straws are made from 3 ply premium grade paper https://singleusealternatives.co.uk/product-category/accessories/straws-stirrers/	UK
		Compostable straws	BAO straws- Ultracompostable Bao Straws are made out of BAO, a natural material patented, which is degradable in less than 50 days https://www.baopackaging.com/bao-straws	Germany
		Biodegradable paper straws, PLA Straws,	Soton Group: biodegradable disposable paper straws, Bamboo straws	China
2.	Cutlery	Wooden cutlery	Jungle Straws-Cutlery set https://www.junglestraws.com/store?category=Cutlery	UK
			Wooden cutlery-made from sustainably sourced and FSC™ certified Birchwood. Coated with a food safe, non-toxic, compostable plant-based carnauba wax, where available	UK
		Corn based cutlery	Single use alternative-Origo cutlery- made from corn and yam, yet certified 100% industrially biodegradable.	UK
			BAO cutlery- Ultracompostable Bao Straws are made out of BAO, a natural material patented, which is degradable in less than 50 days https://www.baopackaging.com/bao-cutlery	Germany
		Sugarcane cutlery	BioPak- BioCane Chinese Soup Spoons are made from rapidly renewable sugarcane pulp, a by-product of the sugar refining industry https://www.biopak.com/au/cutlery-straws/cutlery/sugarcane	Australia
		Biodegradable cutlery	Soton group: biodegradable cutlery and biodegradable eating utensils made from corn starch and PLA	China
3.	Sheets & film	Compostable film	Single use alternative-Fully certified compostable clingfilm, made from GMO free crops and EU food contact approved.	UK

4.	Plates	Leaf based plates	Single use alternative- palm leaf plates, platters, trays and bowls made from fallen palm leaves https://singleusealternatives.co.uk/product-category/tableware/plates/	UK
		Sugarcane based plates	BioPak-Biocane plates-disposable plates are plastic-free – made from reclaimed and rapidly renewable sugarcane pulp https://www.biopak.com/au/plates-trays/plates/sugarcane	Australia
5.	Cotton buds	Paper cotton buds	Ecoliving- Eco cotton buds are made entirely from recycled FSC paper + Fairtrade and GOTS certified cotton` https://www.ecoliving.co.uk/eco-cotton-buds.html	UK
6.	Cups & glasses	Compostable cups	BioCups-cold paper coated inside and out with Ingeo™, a bioplastic made from plants, not oil. Certified industrially compostable to AS4736 https://www.biopak.com/au/cups/cold-cups/paper-leaf	Australia
		PLA cups	Soton group: Biodegradable cups	China
7.	Trays	Paperboard trays	BioPak-Bioboard trays are made from FSC™ (License code FSC™ C110879) Recycled certified paper	Australia

* This list is not an endorsement for products. It is a compilation for information purpose.

Chapter 3: Mapping the list of alternatives available with banned single use plastic items

There are commercially available alternatives to banned single use plastic items, though, the scale of manufacturing and penetration of alternatives needs to be increased. An important push for moving towards alternatives is effective and stringent enforcement of the ban on identified single use plastic items. The enforcement of ban on identified single use plastic items will allow the alternatives to replace the banned items. Thus, providing alternatives an opportunity to reach the scale of manufacturing where the alternatives become cost-effective for consumers. It is no one's case to match price of banned single use plastic items, which has adverse effect on environment to an eco-friendly alternative product.

The States and UTs were requested to provide information on units manufacturing alternatives to banned single use plastic items. A few states responded to the request. The CPCB was also requested to collate information on manufacturers of alternatives in the country. As per the information collated by CPCB an estimate of 383 enterprises manufacturing alternatives was obtained as per table given below:

Table 3. Summary table of number of units manufacturing alternatives

S. No.	Banned Single Use Plastic item	Alternative to banned single use plastic item	Number of units	Total Quantity (per year) (TPA)	Persons employed	Remarks
1	Candy sticks	Wooden Sticks	1	24000	25	
2	Ice-cream sticks	Wooden Sticks	1	24000	25	
3	Polystyrene [Thermocol] for decoration	Designs on Paper, Cloth, Ply Board etc	2	2000		
4	Plastic and thermocol	Compostable, Bio-degradable, Paper, Glass, Plant Leaf, Metal, Melamine, Clay, Bone China, Steel Plates, Areca nut Plate etc.	75	18985.06	1778	
A	Plates		253	269.19	2733	Quantity is in Lakh/year
B	Cups		2	381.94	10	Quantity is in Lakh/year

C	Glasses		3	90	25	Quantity is in Lakh/year
5	Cutlery such as					
A	Forks, spoons, knives	Steel Cutlery, Biodegradable/Compostable tableware, Wooden spoons, forks, Leaves	22	406.5	310	Quantity is in Lakh/year
			6	37509.83	55	
B	Straw	Compostable Straw	4	152	225	
C	Trays	Compostable/Biodegradable trays	5	3600	95	
6	Wrapping or packing films around	Biodegradable/compostable film & Roll	3	4752	33	
A	Sweet boxes, Invitation cards	Paper Board Box				
B	Cigarette packets	Biodegradable	1	0.65	200	
7	Carry Bags	Plastic Compostable bags	5	1156.16	5	

It is important to note here that thirty-four States/UTs had brought in their own regulations for partial or complete ban in the States/UTs before the notification for nation-wide ban on identified single use plastic items was brought out on 12th August 2021. As such there was some regulatory push for manufacturing of alternatives. Even though structured information on manufacturers and suppliers of alternatives may not be available in compiled form, there have been a lot of initiatives and programmes where such units have participated. Some initiatives are covered below. It would be of high relevance to have the list of manufacturers and suppliers of alternatives be put in public domain for wide dissemination and use.

The Government of Delhi organized a Plastic Vikalp Mela, which saw participation of around 76 enterprises manufacturing alternatives including self-help groups. Tamil Nadu and Kerala have also put out information public domain on alternatives. Tamil Nadu is running a campaign called “Meendum Manjappai” to take forward the message on use of cloth bags instead of plastic carry bags. Uttar Pradesh had organized a campaign RACE - “reduction in plastic usage, awareness among masses, circular solution to disposal and engagement of one and all”, which also saw participation of manufacturers of alternatives.

It may be mentioned here that CPCB has registered 202 manufacturers and sellers of compostable plastic as on 20.7.2022. An exercise was also carried out to find out the availability of manufacturers and suppliers of alternatives to banned single use plastic items through the internet and information available in public domain. The internet-based survey led to the identification of 239 manufacturers / suppliers of alternatives who are spread across the country in 24 states of the country. Based upon the results of internet-based search the 239 enterprises have been categorized in state-wise and the same is given in table below.

Table 4: State-wise manufacturer/supplier of alternatives based upon limited internet survey

S.No.	State	No.
1	Andaman & Nicobar Islands	1
2	Andhra Pradesh	2
3	Bihar	1
4	Chhattisgarh	2
5	Dadra and Nagar Haveli and Daman and Diu	5
6	Delhi	21
7	Goa	3
8	Gujarat	20
9	Haryana	8
10	Himachal Pradesh	5
11	Jharkhand	1
12	Karnataka	19
13	Kerala	11
14	Madhya Pradesh	3
15	Maharashtra	43
16	Meghalaya	1
17	Odisha	3
18	Punjab	5
19	Rajasthan	6
20	Tamil Nadu	44
21	Telangana	8
22	Uttarakhand	3
23	Uttar Pradesh	19
24	West Bengal	5

From the publicly available information and the limited internet base, it is seen that manufacturer/suppliers of alternatives are present across the country. Alternatives are available for all SUP items banned on 1st July 2022.

It is seen that following materials are being used for manufacture of alternatives: (i) agro-based by-product or agro-based waste such as wheat or rice bran, (ii) agro-based waste such as bagasse, (iii) plant parts such as coconut leaves, bamboo, (iv) paper based products such as cups etc. and (v) compostable plastics. Biodegradable plastic has also been recognized in the Plastic Waste Management (Second Amendment) Rules, 2022. A transient standard has been notified by Bureau of Indian Standards for testing biodegradable plastics. The Plastic Waste Management (Second Amendment) Rules, 2022 provides a framework for provisional certification of biodegradable plastics. This would allow use of biodegradable plastics. There are some manufacturers/suppliers in the country which have biodegradable plastic sheets for wrapping and packing film applications

DPIIT has also provided a list of around 40 startups working in the area alternatives to banned single use plastic items. Under the “India Plastic Challenge – Hackathon 2021” organized by the Ministry of Environment, Forest and Climate Change, for start-ups and students of Higher Education Institutions (HEIs) to develop alternatives to single use plastics and digital solutions for effective plastic waste management, two startups were awarded for developing alternatives to single use plastics. One startup developed a completely biodegradable alternative to thermocol from paddy straw waste (Parali) and the other developed packaging material from seaweed.

Based upon the information compiled a summarized list of commercially available alternatives is given below.

Table 5: A summarized list of commercially available alternatives

S. No.	Banned SUP items	Alternatives
	Cutlery such as forks, spoons, knives	Plant based derivatives like bamboo cutlery, agricultural and plant biomass-based cutlery, wooden products
	Trays	Plantain leaves, eco based trays, paper trays, areca leaf plates, glass/metal
	Straws, stirrers	Paper based straw, Compostable plastic, Biodegradable plastic straws, beverage cartons with spouts
	Ear buds with plastic sticks, plastic sticks for balloon,	Paper/Cloth flags, Bamboo cotton ear buds, compostable plastic and biodegradable plastic-based sticks

	plastic flags, candy sticks, ice cream sticks	
	Wrapping film around sweet boxes, invitation cards , cigarette packs	Paper rolls, Biodegradable plastic, Compostable plastic Standard for testing of biodegradability has been notified

A field survey was also conducted to understand the on the ground availability of alternatives. The survey was of a wholesale market for packaging items in Delhi was carried out by a team MoEFCC and CPCB along with officials of Municipal Corporation of Delhi.

The main findings of the field survey were the following:

- Alternatives to cutlery items, straws are available. No supply constraint was observed.
- Alternatives to cutlery items were 1.5 to 2 times higher as compared to banned SUP items. These prices are expected to stabilize once the production picks up and banned SUP items are not present in the market.
- The price of compostable plastic bags was nearly 3 to 4 times higher as compared to conventional plastic bags.
- There was general awareness in the market on the single use plastic ban.

As such, alternative products to banned SUP items are present. The need is of wider availability and ramping up of production to reach economy of scale.

It was also seen that the manufacturing and supply of alternatives have provided an opportunity for new livelihood opportunities and business models to develop. It has been seen that many Self Help Groups are making alternatives from locally available material and bio-resources. These Self Help Groups can be organized through institutions like KVIC for supply of alternatives. Internet is being used for reaching out to consumers with alternatives products using customized portals.

Expos on alternatives is an effective medium for spreading wider awareness about (i) availability of alternatives, (ii) manufacturing technologies, (iii) raw material availability, (iv) market access, (v) new business models, and (vi) business to business interactions. Such efforts will allow for accelerated penetration and uptake of alternatives to banned single use plastic items.

Chapter 4: Assessing the capacity building, technical and financial assistance needs of MSME units for manufacture of alternatives

The manufacturing of alternatives can open new livelihood opportunities and also opportunities for new business models to develop. Many of the manufacturers / suppliers of alternatives identified are using digital platforms coupled with conventional distribution channels to reach to the consumers. The units earlier manufacturing single use plastic items also have an opportunity to transition to manufacturing of alternatives to banned single use plastic items.

4.1 Types of alternative materials

The materials used for manufacturing of alternatives are (i) agro byproducts and wastes, (ii) plant parts and plant residue, (iii) paper-based products with barrier coatings, (iv) compostable plastics, (v) biodegradable plastics.

The capacity building, technical and financial assistance needs, of the MSME, is determined by the alternative product being manufactured, raw material used, manufacturing equipment required and distribution channel for product.

4.2 Compostable plastic and biodegradable plastic

There is subset of units including MSME desirous of using compostable plastics and biodegradable plastics for making alternative items. These units could also include units who have phased out manufacturing of banned SUP items. Such units at the outset would require certification from CPCB before initiation of production under the provisions of Plastic Waste Management Rules, 2016, as amended. A prerequisite for certification by CPCB is test reports showing conformity to BIS standards for compostable plastic (IS:17088) or transient standard for biodegradable plastic (IS:17899 T:2022).

As regards use of compostable plastics and biodegradable plastics, the higher cost for testing and long waiting period for test reports for confirming conformity to BIS standards for compostable plastics and biodegradable was shown as an impediment for wider penetration.

In the case of compostable plastics, as per the Standard Operating Procedure issued by CPCB for registration of entities manufacturing compostable plastics, the test reports are to be provided by Central Institute of Petrochemical Engineering and Technology (CIPET).

As a result of ban on identified single use plastic items coming into force with effect from 1st July 2022, manufacturing units including MSMEs are moving to alternative materials such as compostable plastic. An issue has been flagged at various forums regarding the long time for getting the test reports and the high cost of testing.

In order to increase the number of laboratories for testing of biodegradable plastics the Plastic Waste Management (Second Amendment) Rules, 2022, has included laboratories recognised under the Laboratory Recognition Scheme, 2020, of the Bureau of Indian Standards and laboratories accredited for the purpose by the National Accreditation Board for Testing and Calibration Laboratories in addition to CIPET.

The Ministry has already requested the CPCB to widen the number of laboratories for testing of compostable plastics in line with the provision made in the Plastic Waste Management (Second Amendment) Rules, 2022. This step would increase the number of laboratories bring in competition and cut down of testing time due to availability of more testing laboratories.

DPIIT which operates the scheme of NABL has been requested to set up accreditation framework for laboratories for testing of compostable and biodegradable plastics. CIPET can consider increasing the number of labs for testing and also rationalizing cost of per test, as appropriate, keeping in view increase in number units applying for testing.

4.3 Startups and Innovations for alternatives to Single Use Plastics

There are many startups which are coming into the development and manufacturing of alternatives to banned SUP items. These startups are also using diversified market access mechanism through internet based platforms / Apps. The needs for these startups are different from established units or units transitioning away from manufacturing of banned single use plastic items.

The Startup India Mission, Schemes of DPIIT and programmes under implementation to support innovation and startups need to provide an enabling ecosystem by providing support for the following

- i. Incubation
- ii. IPR and commercialization
- iii. Testing for new materials
- iv. Funding for commercialization

There is crucial role to be played by incubators, accelerators and financial institutions and banks. In case of compostable and biodegradable plastics the testing ecosystem in terms of accredited and recognized laboratories need to be put in place.

4.4 Units having manufacturing capacities to produce alternatives to banned single use plastics

Units which have potential to scale up can be categorized into (i) units which were earlier manufacturing banned SUP items and have willingness for transitioning to alternatives, (ii) Units which have already been manufacturing alternatives at large scale, (iii) Units which have limited manufacturing capacity at present and (iv) new businesses.

The needs for these units will vary depending upon which category they belong. Capacity building in terms of technology, access to Government schemes and gaining market access is the key. These units would require support for the following (i) accessing finance, (ii) procurement of raw materials, (iii) capital expenditure including technology up-gradation, (iv) operational cost and (v) market access.

4.5 Units which were earlier manufacturing banned SUP items

There is no firm estimate on the number of MSME units which were involved in the manufacture of banned single use plastic items. In order to get an estimate of units manufacturing SUPs CPCB was requested to get the information from State Pollution Control Boards and Pollution Control Committees. A partial list of 410 units based upon information compiled by CPCB is given below:

S. No.	Banned Single Use Plastic item	Total Number of units	Number of units closed	Total Quantity produced (per year) (TPA)	Persons employed	Number of units switched over to alternatives
1	Ear buds with plastic sticks	1		60	5	
2	candy sticks	5	3	39882	342	1
3	ice-cream sticks	4		0.66	2	
4	plastic flags	5		2.5	4	
5	Polystyrene [Thermocol] for decoration	5	1	4736	73	2
6	Plastic and thermocol	79	30	24496.2	684	22
	• Plates	7	5	620	42	1
	• Cups	30	4	18702.6	697	2
	• Glasses	12	1	594	76	4
7	Cutlery such as					
	forks, spoons, knives	14	10	2558.4	86	
	Stirrers	1	1	70		
	straw	2	1	600		
	trays	1			20	1
8	Wrapping or packing films around	3	1	270	20	2
	Sweet boxes, invitation cards	20		3774	200	
	Cigarette packets	1		288		
9	Plastic or PVC banners less than 100 micron	210		12.1	2005	
10	Carry Bags	10	5			

It may be seen that out of 410 units, 35 units have transitioned to the manufacture of alternatives. The capacities of the remaining 375 units can be built on priority and necessary assistance may be provided in targeted manner, in case these units want to move towards manufacturing of alternatives.

The State and UT Governments were also asked to provide information regarding units manufacturing banned single use plastic items. Clear information on units earlier

manufacturing banned SUP could not be obtained. The unambiguous estimate of such units thus is the data collated by CPCB.

Another source of information explored was the UDAYAM database of Ministry of MSME. There is no separate category of manufacturers of single use plastic items. Hence a clear estimate on number could not be ascertained. The number of enterprises registered under following NIC codes is around 80,000.

- **22201** - Manufacture of semi-finished of plastic products (plastic plates, sheets, blocks, film, foil, strip etc.
- **22202** - Manufacture of tableware, kitchenware and other household articles and toilet articles of plastic, including manufacture of vacuum flasks and other vacuum vessels.
- **22203** - Manufacture of plastic articles for the packing of goods (plastic bags, sacks, containers, boxes, cases, carboys, bottles etc.)
- **22209** - Manufacture of other plastics products n.e.c.

This number may not be considered as a correct estimate of manufacturers of banned single use plastic items. However, it does indicate that many units are involved in the manufacture of plastic products.

4.4 Schemes of Ministry of MSME

An overview of schemes operated by the Ministry of MSME is given below. These schemes have been mentioned in the Comprehensive Action Plan of Ministry of MSME.

(i) Prime Minister's Employment Generation Programme (PMEGP)

Objectives

To provide continuous and sustainable employment to a large segment of traditional and prospective artisans and rural and urban unemployed youth in the country, so as to help arrest migration of rural youth to urban areas.

Nature of Financial Assistance

- The maximum cost of the project/unit admissible in manufacturing sector is ₹ 25 lakhs and, in the business, /service sector, it is ₹ 10 lakhs.

- Categories of Beneficiary's Rate of subsidy under PMEGP (of project cost) Area (location of project/unit) General category 15%(Urban), 25%(Rural), Special 25%(Urban), 35%(Rural) (including SC/ ST/ OBC/ Minorities/Women, Ex-servicemen, Physically handicapped, NER, Hill and Border areas, etc.)
- The balance amount of the total project cost will be provided by the banks in the form of term loan and working capital.

Who can apply?

Any individual, above 18 years of age. At least VIII standard pass for projects costing above Rs.10 lakh in the manufacturing sector and above Rs. 5 lakhs in the business / service sector.

Only new projects are considered for sanction under PMEGP. Self Help Groups (including those belonging to BPL provided that they have not availed benefits under any other Scheme), Institutions registered under Societies Registration Act,1860; Production Co-operative Societies, and Charitable Trusts are also eligible.

Existing Units (under PMRY, REGP or any other scheme of Government of India or State Government) and the units that have already availed Government Subsidy under any other scheme of Government of India or State Government are NOT eligible.

N.B: *The following list of activities will not be permitted under PMEGP for setting up of micro enterprises! projects /units:*

, Manufacturing of polythene carry bags of less than 75 microns thickness and I manufacture of carry bags or containers made of recycled plastic for storing, i carrying, dispensing or packaging of food stuff and any other item which causes environmental problems. Thickness of polythene carry bags shall be governed by the Ministry of Environment, Forest and Climate Change notification for plastic waste management rules and amendments from time to time.

(ii) Credit Linked Capital Subsidy for Technology Upgradation (CLCSS) (This scheme is under approval stage at present)

Objectives

The revised scheme aims at facilitating technology upgradation by providing 15 per cent upfront capital subsidy to SSI units, including tiny, khadi, village and coir industrial units (hereinafter referred to as SSI units), on institutional finance availed of by them for induction

of well-established and improved technologies in the specified sub-sectors / products approved under the scheme.

Nature of Financial Assistance

The revised scheme aims at facilitating technology upgradation by providing 15% up front capital subsidy to MSEs, including tiny, khadi, village and coir industrial units, on institutional finance availed by them for induction of well-established and improved technologies in specified sub-sectors/products approved under the scheme

Who can apply?

Micro and Small Enterprises (MSEs) having a valid UAM number

Candidates meeting the eligibility criteria may approach 12 nodal banks / agencies. These are SIDBI, NABARD, SBI, BoB, PNB, BOI, SBBJ, TIIC, Andhra Bank, Corporation Bank, Canara Bank and Indian Bank.

N.B: **Status of the scheme:** *The CLCSS component of CLCS-TU scheme was inforce till 31/03/2020.*

(iii) Raw Material Assistance Scheme

Objectives

Raw Material Assistance Scheme aims at helping MSMEs by way of financing the purchase of Raw Material (Both indigenous & imported). This gives an opportunity to MSMEs to focus better on manufacturing quality products.

Nature of Financial Assistance

Assistance against the security of Bank Guarantee.

Who can apply?

Any manufacturing industry under MSME having “Udyog Aadhaar Memorandum” (UAM) can apply for the raw material assistance scheme.

(iv) MSME Innovative Scheme

Objectives

- To encourage innovation in India by providing a platform to entrepreneurs and to promote the complete value chain from developing ideas into innovation through incubation and design interventions
- To provide appropriate facilities and support for the development of the concept to market, design competitiveness, and protection and commercialization of intellectual property.
- MSME Innovative Scheme will be a combination of three schemes: Incubation, Design and IPRs. These three schemes will act as separate units.

Nature of Financial Assistance

The government will provide financial assistance of a maximum Rs. 15 lakh (US\$ 19,600) per idea. Financial assistance of a maximum Rs. 1 crore (US\$ 0.13 million) will be provided to HI for the procurement and installation of relevant plants and machinery.

Who can apply?

Technical colleges, universities, professional institutes, R&D institutes, NGOs that are involved in incubation activities, and central or state government institutions that will participate in the process.

(v) Procurement and Marketing Support Scheme (P&MS)

Objectives

- To encourage Micro and Small Enterprises (MSEs) to develop domestic markets and promotion of new market access initiatives.
- To facilitate market linkages for effective implementation of Public Procurement Policy for MSEs Order of 2012.
- To educate MSMEs on various facets of business development.

- To create an overall awareness about trade fairs, latest market technique and other such related topics etc.

Nature of Financial Assistance

1. Participation of individual MSEs in domestic trade fairs/ exhibitions across the country:

Eligible items	Scale of assistance
Space Rent charges	80% subsidy on built up space rent paid for General category units and 100% for SC/ST/women/NER/PH/Aspirational District units on minimum stall size of the event for Micro and Small enterprises.
Contingency expenditure (include travel, publicity & freight):	100% contingency expenditure for all categories of units subject to maximum Rs.- 25,000/- or actual, whichever is less. One representative from each participating unit may travel limiting to AC II tier train fair/ Economy Class Air Fare per event. Local participants will be paid Rs 12/Km as freight charges (transportation of goods charges) up to 50 Kms.
Maximum Budgetary support (including contingency expenditure):	Metro & A Class City: Rs 1.50 lakhs (incl. All taxes) max or actual whichever is less for a participating enterprise per event. B Class City: Rs 1.00 lakhs (incl. All taxes) max or actual whichever is less for a participating enterprise per event. 2 Other City: Rs 0.80 lakhs (incl. All taxes) max or actual whichever is less 1 for a participating enterprise per event. " NER/J&K/Hilly States: Rs 1.00lakhs (incl. All taxes) max, or actual whichever is less for a participating enterprise per event

NOTE:

- A MSE would be allowed reimbursement for maximum of 2 (two) events in a year.
- Applicant unit shall have to submit its claim online (or system in place) in the prescribed format within 30 days from date of conclusion of the event.
- IA shall send the proposal with minimum 10 units for an event, with no cap on maximum number of participating units per event.
- Empowered Committee of the scheme may assign an implementing agency which will represent the Ministry for propagating the scheme & policies in the event along with monitoring of participants and publicity by common facia of the ministry, hanging of bunting etc. The budgetary support for participation of implementing agency will be max. 10% of total allocation to the event or actual whichever is less.

The implementing agency will take approval of competent authority for detailed publicity proposal.

- v. The Event should be of National/International level or in partnership with Central/State Govt. or its Organizations, Autonomous Body, Departments, Corporations.

Organizing Domestic Trade Fairs/Exhibition and participation in trade fairs/exhibitions by the Ministry/Office of DC (MSME)/Government organizations:

Eligible items	Scale of assistance
Space Rent charges	<p>The implementing agency will hire bare space/built up space(i.e.fabricated stalls/booths) from the event organizer/any other agency and mobilise the participating units.</p> <ul style="list-style-type: none"> The upper cap of hiring of built up space to organize/participate in the events shall be as follows: <ul style="list-style-type: none"> a. Regional (state/District): Rs.15.00 lakhs b. National Rs. 25.00 lakhs c. International: as decided by the empowered committee, subject to approval of Deptt of Expenditure on case to case basis, where the overall ceiling exceeds the limit set by DOE. The minimum number of participating units per program will at least 30. The participating units will be provided space rent subsidy @ 80 % for General Category units @ 100 % for SC/ST/Women/NER/PH/Aspirational District units subject to one booth/stall per unit and for minimum booth/stall size for Micro and small Enterprises. The total subsidy will be within the upper limit as mentioned above. The exclusive trade fairs for Self Help Groups (SHGs)/ artisans/NER/Aspirational District MSEs will be held with 100 % space rent subsidy. However, the upper limit of subsidy will equally be applicable to them and participating units must be at least 30 Trade fair duration: 3 or more days

Contingency expenditure (include travel, publicity & freight).(For NER/aspirational District enterprises only)	100% to and fro actual fare of train/air travel (limited to AC-II tier class and economy class in case of air travel) from nearest railway station/airport to the place of exhibition by shortest route for one person per enterprise subject to maximum Rs. 25000/- or actual whichever is less. It also includes freight and publicity charges on actual basis.
Advertisement and Publicity for organizing/participation in regional/National/International events	Rs 15.00 lakh max. or actual whichever is less for wide publicity of event and other related activities such as cultural program etc. either through event organizer or any approved agency.
<ul style="list-style-type: none"> There will be no expenditure ceiling for those events wherever Ministry decides to organize or participate on its own. The expenditure to be incurred will be decided by the empowered committee, subject to overall ceiling prescribed by Deptt of Expenditure. The scale of assistance to participating MSEs in MSME pavilion will be admissible as detailed in space rent subsidy and contingency expenditure for NER enterprises as above. Non-Government event organizers need to ensure B2B business of 20 % of subsidized participant MSEs before release of payment to the organizer by IA. 	
Approval of Empowered Committee will be required for exceeding ceiling limit subject to limit of max. 10-15 %.	

2. Capacity building of MSMEs in modern packaging technique:

Eligible items	Scale of assistance
Unit based interventions for specific packaging requirements.	80% of total cost paid to empaneled agency/ consultancy organization for General category units and 100% for SC/ST/Women/NER/PH/Aspirational District units limited to Rs. 1,00,000 – (Incl. All taxes) for ordinary packaging consultancy and Rs. 1,50,000/- max. for green packaging consultancy or actual whichever is less. Empanelment of expert organizations like IIP, NID etc. shall be done by inviting EOI following GFR2017 to have a panel of institutions for providing consultancy services to MSMEs, particularly in the clusters supported by the Ministry under its various schemes and to individual MSMEs.

3. Development of Marketing Haats.

Items	Scale of assistance
Development of New MSME Haats	Maximum assistance of Rs. 100.00 lakhs shall be provided towards the project cost to the implementing agency, subject to 50% contribution towards the project cost from the IA. Upper limit of GIA will not exceed Rs 50.0 lakhs.
Renovation / up gradation of the existing Marketing haats	Maximum assistance of Rs 40 lakh subject to 50% contribution towards the project costs from the Implementing agency. Upper limit of GIA will not exceed Rs. 20.0 lakhs.
Plan proposal shall be accompanied with the following details from the IA: <ol style="list-style-type: none"> Source of funding by the IA towards the recurring cost for the next 3 years Estimated revenue generation from the Haat Total number for MSMEs to be benefitted from the haat Estimated shall be certified by the CPWD/PWD or any other government works deptt. 	

4. Vendor Development Program (VDP):

Type of VDPs	Program duration	Scale of Assistance
State level Vendor Development Programme	One day	Sanction of max. Rs 10 lakh or actual whichever is less per programme
National level Vendor Development Programme	2-3 days	Sanction per program for organizing these programmes be Rs 10.0 lakhs max. Or actual whichever is less for "A" class City and Rs. 7.00 lakh max, or actual whichever is less for "Other cities" including J&K/ NER/HP.

5. International/ National Workshop/ Seminars:

Items	Scale of assistance
International/ National Workshop/ Seminars	<ol style="list-style-type: none"> Rs 5.0 lakh max. or actual whichever is less per workshop/ seminar anywhere in the country. An additional cost of Rs. 2.5 lakh (maximum) or actual whichever is less towards cost to air travel, boarding & lodging etc. will be admissible for international experts foreign/ speakers / resource person/ experts for international level events.

	<p>c. Assistance is admissible to the Govt./ non-govt. reputed organisations having at least 3 years of experience in organizing subject specific workshops/ seminars.</p> <p>d. The honorarium & travelling allowance to the persons other than Govt. official will be admissible as per Govt. of India extant rule.</p>
The limit may be enhanced with approval of Empowered Committee subject to limit of max. 10-15%	

6 Awareness Programs:

Intake capacity	Program duration	Scale of Assistance
At least 30 MSME participants	One day	<p>a. Financial support of Rs 70,000/- per program wherever necessary subject to expenses as per Govt. of India extant rule.</p> <p>b. The program will be conducted by the Implementing Agency.</p> <p>c. The honorarium & travelling allowance to guest faculty other than Govt. official will be admissible as per Govt. of India extant rule.</p>
The limit may be enhanced with approval of Empowered Committee subject to limit of max. 10-15%		

Who can apply?

Individual Manufacturing/Service MSEs.

(vi) Entrepreneurship promotion and development Programme (ESDP)

Objectives

- To nurture the talent of youth by enlightening them on various aspects of industrial/business activity required for setting up MSEs.
- These Programmes are conducted for youth and other people interested to set up their own industrial/self-employment venture.

- Such activities are also organized in ITIs, Polytechnics and other technical institutions/business schools, where skill/talent is available to motivate them towards self-employment.

Nature of Financial Assistance

The following activities are conducted under the ESDP Scheme

1. Industrial Motivational Campaign (IMC) – Two days
2. Entrepreneurship Awareness Programme (EAP) – Two Weeks
3. Entrepreneurship-cum-Skill Development Programme (E-SDP) – Six Weeks
4. Management Development Programme (MDP) – One Week

Above mentioned activities/programmes will be conducted through Implementing Agencies (IAs) i.e., MSME-DIs & MSME-TCs under the Office of Development Commissioner (MSME); Ministries, Departments, organizations/, Corporations, PSUs, agencies under the administrative control of Central/State Governments, as approved by the Empowered Committee headed by AS & DC(MSME) from time to time. Respective IAs (other than MSME-DIs) will be responsible for submitting utilization certificates for grants/funds issued to them by the end of financial year. Overall, 40 % of the targeted beneficiaries of EAPs and E-SDPs should be Women.

Who can apply?

Youth and other people interested to set up their own industrial/business/self-employment venture. The qualification of the participants and structure of the fees will be decided by the Implementing Agencies. The age of the participants will be 18 years and above

(vii) MSME Champions Scheme

- Ministry of MSME has been implementing Credit Linked Capital Subsidy and Technology Upgradation Scheme (CLCS-TUS) for promoting competitiveness amongst Micro, Small and Medium Enterprises (MSMEs) by the way of wastage reduction through Lean Manufacturing, support for Design improvement, building

awareness on Intellectual Property Rights, Zero Defect Zero Effect (ZED) Scheme, digitally empowerment of MSME through Digital MSME and to promote & support untapped creativity of individual and to promote adoption of latest technologies in manufacturing as well as knowledge based innovation MSMEs through Incubation across India.

- MSME Champions scheme has been formulated through Standing Finance Committee (SFC) by merging all 6 components of erstwhile Technology Upgradation Scheme (TUS) for a period of 5 years i.e. 2021-22 to 2025-26.
- It is a Holistic Approach to unify, synergize and converge various schemes and Interventions with a single purpose.
- The end objective is to pick up clusters and enterprises and modernize their processes, reduce wastages, sharpen business competitiveness and facilitate their National and Global reach and excellence.
- There are 3 components under the new MSME Champions scheme, the details of which are as below:

1) - MSME-Sustainable (ZED)

2) MSME-Competitive (Lean)

3) MSME-Innovative (for Incubation, IPR, Design and Digital MSME)

(viii) Micro & Small Enterprises Cluster Development Programme (MSE-CDP) Scheme

Objective:

- To support the sustainability and growth of MSEs by addressing common issues such as improvement of technology, skills & quality, market access, etc.
- To create/upgrade infrastructural facilities in the new/ existing Industrial Areas/Clusters of MSEs.
- To set up Common Facility Centres (for testing, training, raw material depot, effluent treatment, complementing production processes, etc).
- Promotion of green & sustainable manufacturing technology for the clusters.
- Creation of Common Facility Centers including Plug & Play Facilities.

- Support for Infrastructure Development Projects including Flatted Factory Complexes.

Nature of Financial Assistance

Common facility centres: Creation of “tangible assets” such as Common Production / Processing Centre, Design Centers, Testing Facilities including Plug & Play Facilities. GoI Assistance: up to 80% of the maximum Project cost of Rs. 30 crores.

Infrastructure development: Development of land, roads, drainage, power distribution etc. in new/existing industrial (multi-product) areas/estates/Flatted Factory Complex. GoI Assistance: up to 70% of the maximum Project cost of Rs. 15 crores.

Who can apply?

Scheme applicable for: • Existing Entrepreneurs (in form of a SPV).

In order that these schemes can be utilized for supporting MSME Units which have closed down production of banned single use plastic items and those units which are desirous to take forward the manufacturing of alternatives to banned SUP items, a tool kit needs to be prepared providing information on the nature of support available under the schemes.

Support for MSME units manufacturing alternatives to banned SUP may be prioritized under the schemes of Ministry of MSME.

A country-wide engagement with MSME units need to be taken up through MSME Development Institutes in each State to form MSMEs about these schemes.

The Credit Linked Capital Subsidy Scheme for Technology Upgradation (CLCSS) needs to be approved and implemented on the ground to allow for smooth transition to eco-friendly alternatives.

4.5 Scheme of DPIIT

An overview of schemes available with DPIIT is given below.

1. Startup India Recognition

DPIIT-Recognised Startups Are Eligible for The Following Benefits:

- Intellectual Property Rights (IPR)
- Relaxation in Public procurements norms
- Self-certification under Labour & Environment laws
- Section(56)(2)(viib)
- Fund of Funds for Startups (FFS)
- Faster exit for Startups
- Programs on Startup India website

DPIIT-Recognised Startups May Apply To Inter-Ministerial Board (IMB) For The Following

Benefits:

- Section 80-IAC: Income Tax exemption for 3 out of 10 years
- Section 54GB: Capital gain on transfer of residential property
- Section 79: Carry forward and set off of losses
- Sections 156, 191 and 192: Deferment of tax liability on ESOPs

Startup India Hub Resources

Learning and Development Programs	Step-by-step guide to starting a business in India
Government Schemes	Centralized repository of entrepreneurship related government schemes for the startup and ecosystem enablers
State Startup Policies	Single point to access all notified startup policies by the respective state governments
Pro Bono Services	A quick walkthrough on all things related to startups, including company registration, investor engagement, legal considerations, etc.
Knowledge Bank	A quick walkthrough on all things related to startups, including company registration, investor engagement, legal considerations, etc.
Tools And Templates	A repository of sample templates for all legal and

	HR documents, investor decks, deeds, contracts, etc.
Exclusive Innovation Programs	Apply for programs and challenges for cash grants, mentorship, pilot projects and various other opportunities across the globe
Idea Bank	Brainstorm innovative ideas for the listed problem statements on the website
Networking	Connect with mentors, investors, incubators and other enablers on the portal

2. Invest India :

BUSINESS PLANNING & ADVISORY

- Policy and incentives advisory
- Market entry strategy
- Expansion advisory

STRATEGY & IMPLEMENTATION

- Market entry strategy
- JV and strategic partner search
- License and compliance advisory

LONG-TERM PARTNERSHIP

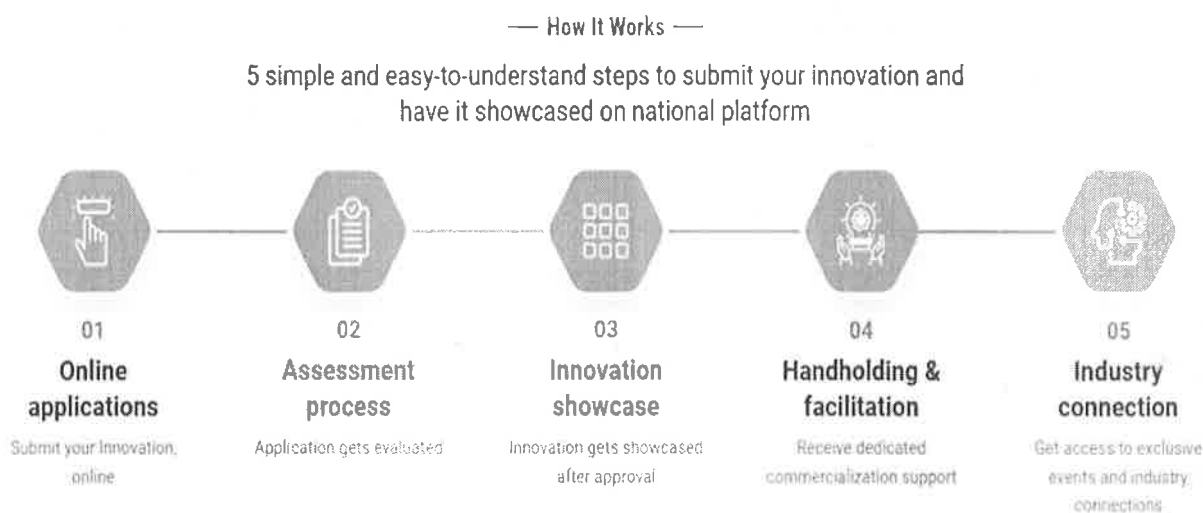
- Expansion advisory
 - Policy impact analysis
 - Facilitation
-
- Multi-faceted activities include detailed India entry strategies and research, end-to-end handholding, and investment aftercare. We work with every major country around the world, and across all Indian states.
 - Our team, comprised of over 200 of the finest, most talented business professionals handpicked from India's and indeed the world's best universities and companies serve as investors' pro bono guide to developing the best India strategy.
 - From assisting with land acquisition to highlighting infrastructure projects for investment, showcasing cutting-edge innovation and startups, and world-class research,

the various teams at Invest India offer each new investor the panoramic scope of the India opportunity and ways to navigate it.

- From supporting India's expanding start-up ecosystem to harnessing the power of innovation from India's laboratories and bringing them to the market or identifying, developing, and deploying technologies on-ground, Invest India's work covers the entire gamut of India's transformational business sector.
- Working with every department of the government of India, our expertise in providing advice and assistance is consistently rated best in the world. Most recently, we were awarded the Investment Promotion Award, 2020 by the United Nations Conference on Trade and Development for our good practices during the pandemic.

3. AGNii:

AGNii convenes India's finest technologists and their deployment-ready technologies - from startups and laboratories - with top technology users from Indian and global enterprise, government, and non-profit sectors. We help those who have the technology, deliver it where it is needed



Services offered:

- Identify and provide commercialization support to market-ready indigenous innovations
- Collaborate with existing innovation programs
- Support to government laboratories for commercialization of their market ready inventions
- Capacity building of scientists, innovators and technology transfer offices
- Bridging the gap between industry and academia

These schemes can also prioritize support for startups working in the area of alternatives to banned single use plastic items.

Chapter 5: Measures for promoting manufacture of alternatives by MSME units, including those units which were earlier manufacturing banned SUP items

Based upon the deliberations of the Study Group the following measures were recommended for implementation:

1. Measures to bring in technology and innovations

- Expos/Conferences on alternatives to banned single use plastic items and on start ups in the area of alternatives to plastic need to be organized for their accelerated penetration in the market and uptake by citizens.
- Fast track accreditation of laboratories through NABL for testing compostable and biodegradable plastic as per BIS standards mentioned in Plastic Waste Management Rules, 2016, as amended.
- DPIIT through Startup India Mission and schemes of the Department prioritize support to startups working in the area of alternatives to banned single use plastic items including new business models.
- Provide support to startup and innovators through various schemes / Programme of the Government including Startup India Scheme, Invest India and Agnii covering innovation, prototype development, incubation, IPR and commercialization, testing facilities

2. Measures to facilitate credit availability and access

- A tool kit needs to be prepared providing information on the nature of support available under different schemes of Ministry of MSME for use by units manufacturing alternatives and those units who have closed down production of banned SUP items.
- Support for MSME units manufacturing alternatives to banned SUP is to be prioritized under the schemes of Ministry of MSME.
- The Credit Linked Capital Subsidy Scheme for Technology Upgradation (CLCSS) may be implemented on the ground to allow for smooth transition to eco-friendly alternatives.
- The availability of finance / grants under ongoing schemes need to made available to units manufacturing alternatives to Single Use Plastic items for procurement of raw materials, capital grant subsidy/ operational cost, market access.

- To increase adoption of alternatives to banned single use plastic cutlery items through adjusting GST rates for wide adoption.

3. **Measures to promote availability and adoption**

- Establish a database of manufacturers to be displayed on websites of MoEFCC, State Environment Departments, CPCB, SPCBs and PCCs.
- KVIC may utilize their presence across the countries to organize Self Help Groups for manufacturing a sale of alternatives including cloth bags.
- Procurement of alternatives to banned single use plastic items especially cutlery items, plates, glasses and straws may be taken up by Government offices, bodies and agencies, on priority especially through defence establishments, railways, hospitality and tourism sector, food processing sector to create demand for the products.
- In order to provide rapid access to the alternatives manufacturers to be listed on Government E-market place (GEM). These alternatives can also be made available through outlets of KVIC, Kendriya Bhandar, Cooperatives under Government.

4. **Measures to build capacity**

- Prioritized capacity building schedule needs to be put in place for units which were earlier manufacturing banned SUP items to leverage the manufacturing capacity of these units and their prior knowledge of the product and distribution channels / supply chain for manufacturing of alternatives.
- Capacity building programmes need to be taken up by Ministry of MSME for units already manufacturing alternatives to make them aware of about various schemes.
- The capacity building programme should include technologies available for manufacture of alternatives and the government schemes available for technical and financial assistance and market development.
- A country-wide engagement with MSME units needs to be taken up through MSME Development Institutes in each State for capacity building.

Annexure: Items, other than SUP Items Notified by MoEFCC, banned in other States

legend	
	Banned in entire state
	Banned at selected location

[illegible]

[illegible]

Source: PCB