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SINGLE-USE PLASTICS

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "SINGLE-USE PLASTICS". THIS TOPIC IS RELEVANT IN THE "ENVIRONMENT" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

Despite pledging to eliminate Single-Use Plastics (SUP) by 2022, India still faces a significant challenge in curbing their widespread use. While the nation has made some progress through bans on specific items, a recent report by the United Nations Environment Assembly (UNEA-6) underscores the ongoing struggle. The report highlights the heavy reliance on SUP in the thriving street food sector, which contributes significantly to the nation's plastic waste management woes.

KEY REPORT FINDINGS AND RECOMMENDATIONS

- **Street Food Sector's Reliance on SUP**: The report reveals the extensive use of single-use plates, bowls, cups, and containers in India's street food industry. This ubiquitous presence translates to a substantial amount of plastic waste generation, posing a significant environmental challenge considering the vast scale and reach of the street food sector.
- **Reusable Packaging System**: A Win-Win Solution: The report proposes a compelling alternative implementing a reusable packaging system within the street food sector. This approach presents a win-win scenario, **offering**:
- 1. **Economic benefits**: Reduced costs for both vendors and customers.
- 2. **Environmental benefits**: Significant reduction in the amount of plastic waste generated, contributing to a cleaner and healthier environment.
- 3. **Financial viability**: The report highlights the potential for a high return on investment and a short payback period, making it an economically attractive option for businesses.
- 4. **Additional considerations**: The report emphasises the importance of factors such as material selection, efficient return systems, and government incentives to optimise the effectiveness and widespread adoption of this solution.

The report strongly advocates adopting a reusable packaging system, emphasising its potential to create a more sustainable and economically viable future for all stakeholders involved in the Indian street food industry.

UNDERSTANDING SINGLE-USE PLASTICS

- Single-use plastics (SUP) are defined as "plastic items intended for single use before disposal or recycling."
- They encompass a vast range of commonly used plastic products, including packaging materials, beverage bottles, shopping bags, food containers, and cutlery.
- The widespread use and disposal of SUPs contribute significantly to global plastic pollution, posing a major threat to environmental and ecological health.
- A concerning projection suggests that single-use plastics could account for 5-10% of greenhouse gas emissions by 2050 if the current production trajectory continues unabated.

CURRENT LANDSCAPE IN INDIA:

- **Progress Made:** India has taken initial steps towards curbing SUP by banning 19 specific items in 2021. These prohibited items, primarily plastic bags and cutlery, represent an estimated volume of 0.6 million tonnes annually. However, this constitutes a relatively small portion of the overall SUP problem.
- Remaining Challenge: A significant portion of SUP, primarily packaging materials, still remains in circulation. These items fall under the ambit of the Extended Producer Responsibility (EPR) policy, which focuses on collection and recycling targets. However, a crucial limitation of this policy is that it overlooks the fact that some non-recyclable plastics are not included in the ban.
- India's Plastic Footprint:
- 1. According to the Plastic Waste Makers Index 2019, India ranks 13th globally in terms of investment in single-use plastic polymer production, highlighting the nation's significant role in the global SUP landscape.
- 2. The nation also holds the dubious distinction of being the third-largest contributor of SUP waste globally, generating an estimated 5.5 million tonnes annually.
- 3. Alarmingly, India mismanages a staggering 85% of its plastic waste, leading to improper disposal and environmental contamination. This waste ends up in landfills, streets, waterways, and ultimately, oceans, causing harm to wildlife and ecosystems.

CHALLENGES IN TACKLING SUP:

Phasing out single-use plastics and transitioning towards a more sustainable future presents a complex challenge for India, owing to several factors:

- 1. **Limited Alternatives:** The lack of readily available, affordable, and convenient alternatives to SUP hinders widespread adoption. Consumers and businesses are often hesitant to switch due to concerns about cost, practicality, and accessibility. Addressing this gap requires investing in research and development of innovative, cost-effective, and user-friendly alternatives to SUP.
- 2. **Economic Considerations:** The affordability and convenience often associated with single-use plastics create a significant economic barrier. Transitioning to sustainable alternatives may require investments in research, development, and infrastructure, which can be a burden for both businesses and the government. Additionally, consumer price sensitivity can impede the adoption of costlier alternatives. This necessitates the development of economically viable solutions that are both sustainable and accessible to all stakeholders.

- 3. **Infrastructure Gaps:** Deficient waste management infrastructure, particularly in developing regions, poses a major hurdle. Inadequate waste collection, sorting, and recycling facilities hinder proper disposal and prevent effective resource recovery from SUP. Addressing this challenge
- 4. **Consumer challenges**: Consumers often favour convenient, readily available options like SUP, making it difficult to shift to sustainable alternatives. Lack of knowledge about the environmental impact of SUP hinders behaviour change. Public education programmes are critical for raising awareness.
- 5. **Livelihood impacts**: Restrictions on SUP can impact those employed in their production and sale. Policymakers should consider retraining programs and support for transitioning to alternative industries within the waste management or sustainability sectors.

INITIATIVES NEEDED TO COMBAT THE SINGLE-USE PLASTIC CRISIS:

- Foster Sustainable Alternatives:
- 1. Invest in R&D for affordable, accessible alternatives like bioplastics or reusables.
- 2. Incentivise businesses to develop and manufacture these alternatives.
- 3. Educate consumers on the environmental and health impacts of SUP and the benefits of sustainable options.
- Strengthen Infrastructure and Policy:
- 1. Upgrade waste management infrastructure for efficient collection, sorting, and recycling.
- 2. Strictly enforce existing bans and regulations on SUP.
- 3. Implement EPR programs to hold producers responsible for product lifecycle management.
- 4. Explore deposit-refund schemes to incentivise responsible collection and recycling.
- Foster Collaboration:
- 1. Collaborate with the private sector to use its experience and resources.
- 2. Engage civil society and communities for wider awareness and inclusivity.
- Address Livelihood Concerns:
- 1. Provide skill development and training programs for affected individuals.
- 2. Implement social safety nets for those disproportionately impacted.

PRELIMS PRACTISE QUESTIONS

- Q1. Extended Producer Responsibility (EPR) is a concept introduced in the rules. What does EPR mean in the context of waste management?
- (a) Producers are responsible for educating consumers about waste sorting.
- (b) Producers are financially or physically liable for the collection and management of their product after its use.
- (c) Producers are required to use recycled materials in their packaging.
- (d) Producers are encouraged to invest in waste-to-energy plants.

Answer: B

- Q2. Which international environmental treaty is India a party to, promoting sound management of hazardous waste, including transboundary movement?
- (a) Basel Convention
- (b) Kyoto Protocol
- (c) Montreal Protocol
- (d) Rio Declaration

Answer: A

MAINS PRACTISE QUESTION

Q1. Analyse the role of decentralised waste management in achieving the objectives of the Solid Waste Management Rules, 2016. How can local communities play a pivotal role in waste segregation, collection, and treatment?

