

Sachet Waste in Bangladesh: A Comprehensive Analysis

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Abstract

This report explores the problem of sachet waste in Bangladesh, and it focuses on aspects such as, the quantity of waste generated, the contributors to this waste, how it is managed, recycling efforts and the stakeholders involved. The findings indicate a deep concern as revealed through the impact caused by disposable sachets made from plastic. Annually, 192,104 tons of sachet waste is produced from the shampoo sachets as being the common source. Waste management responsibilities primarily lie with the city corporations, however, there are concerns arising from privatization trends. Technological limitations result in 9% of plastics being recycled. The low recycling rate and technological limitations highlight the need for innovative solutions. The report also sheds light on stakeholders, like the tourism sector and recycling companies who are striving to address the issue of sachet waste.

Keywords: Sachet waste, Single-use plastic, Waste management, Recycling, Bangladesh.

Introduction

The escalating issue of sachet waste in Bangladesh is explored in this report, shedding light on the substantial environmental consequences of single-use plastic sachets. The study investigates the quantity of waste produced, major contributors, waste management practices, recycling endeavors, and the involvement of stakeholders in addressing this critical concern.

Methods

Data for this report is primarily sourced from the Environment and Social Development Organization's (ESDO) report titled "Plastic Sachet: Small Packet with Huge Environment Destruction," published on July 2, 2022. The study includes information on the annual generation of single-use plastic, composition of sachet waste, and insights into waste management practices. Additional information is gathered from official documents, government reports, and reputable news sources.

Results

How much sachet waste is produced in Bangladesh?

Sachet, made of completely non-recyclable plastics, is a growing source of single-use plastic in both rural and urban areas and is mostly used for packaging food items and personal care products such as– mini packs of shampoo, conditioner, ketchup, toothpaste etc.

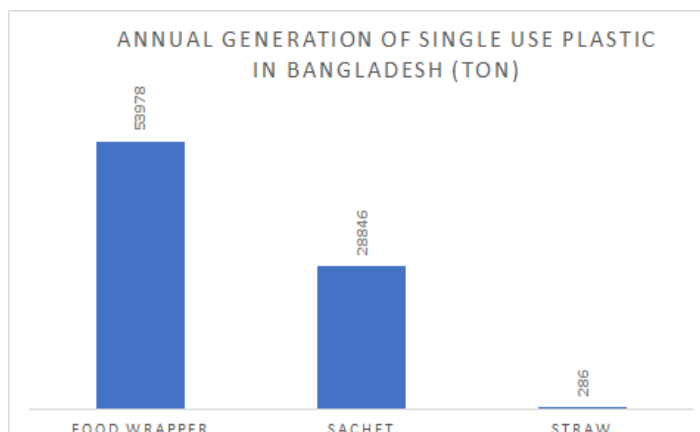


FIGURE 1: Annual generation of single use plastic in Bangladesh (ton)

(Source: Environment and Social Development Organization)

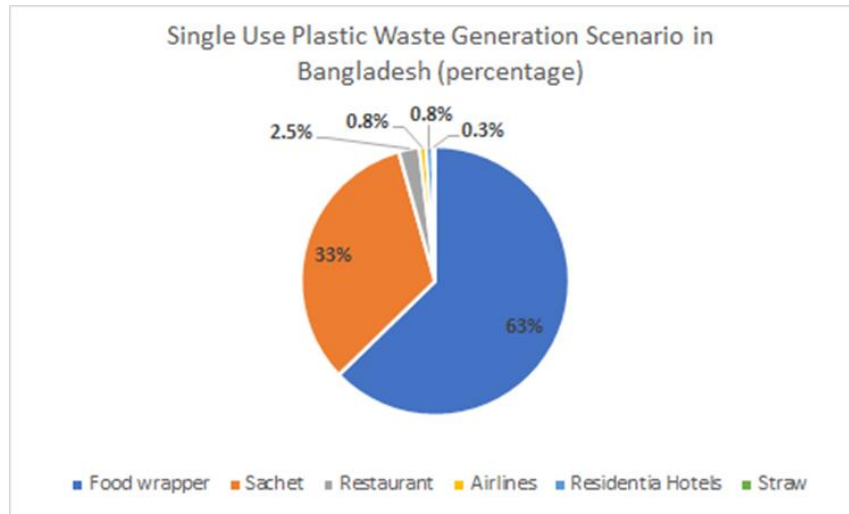


FIGURE 2: Single use plastic waste generation scenario in Bangladesh

(Source: Environment and Social Development Organization)

Bangladesh produces 192,104 tons of sachet wastes per year which indicates 129 million sachets are used by Bangladeshi people on a daily basis. 1.06 million tons of single-use plastic waste has been produced in Bangladesh in the years 2021-22 (June 21-May 22). This information was revealed in the report titled “Plastic Sachet: Small Packet with Huge Environment Destruction”, launched by Environment and Social Development Organization ESDO on July 02, 2022.

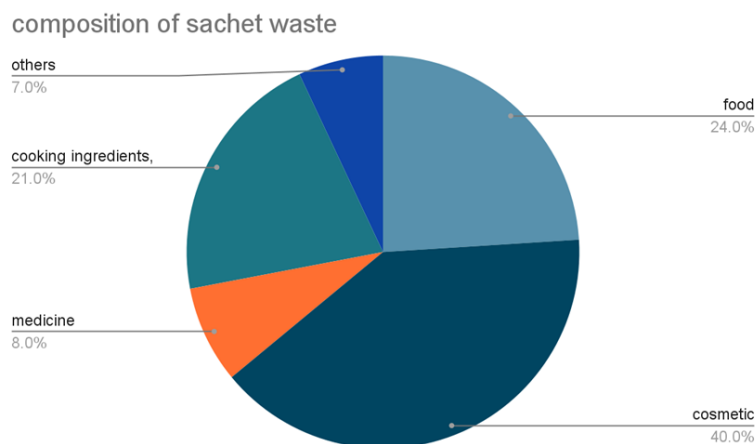


FIGURE 3: Composition by percentage of the different types of sachet waste generated in Bangladesh

(Source: Environment and Social Development Organization)

Who produces the most sachet waste?



The most commonly used sachet is a shampoo or conditioner pack. Shampoo sachets were purchased by 69% of people, followed by saline packs (50%), sauce sachets (43%), seasoning sachets (35%), instant coffee packs (35%), instant drinking powder (30%), toothpaste sachets (29%), and others (7%).

It was observed that more than 69,841 tonnes of single-use plastics are produced in the Cox's Bazar area alone, and 9,073 tonnes come from Kutupalong. The sachet waste of these areas is 13,968 tonnes and 1,633 tonnes, respectively.

In addition, this study says that the country produced a total of 1.06 million tonnes of single-use plastic waste between June 2021 and May 2022. The survey included 2,375 consumers from Dhaka, Rangpur, and Chittagong divisions.

Who handles the waste?

As appears in the policies and DNCC's official documents, waste management is the most important responsibility of the city corporation. Waste collectors who regulate the flow of single-use plastic from its domestic end-user to a landfill are recruited by the community-based organizations (CBOs) that manage the transfer of household wastes to a city corporation-designated secondary transfer station. The city corporation has recognised these CBOs since 1987 as the Primary Waste Collection Service Provider (PWCSPP). These PWCSPPs function differently in different neighborhoods. In a middle-class neighborhood, every household contributes a regular payment to local volunteers to manage this activity. In an upper-class area, this task is rather given to a private contractor who happens to be a local muscleman. In recent years, officially city corporations are trying to privatize this service. In summary, though plastic has not been prioritized as a subject of environmental damage and future risk by legitimate waste management institutions, the function of waste management is gradually going under the control of a group that has far less accountability to society.

How much is recycled?

Only 9% of the plastics are recycled because researchers lack the technology to turn dirty waste plastics into virgin quality materials. At present, the only widely employed method in recycling plastics is mechanical. The organic component is recovered by cleaning and is then shredded, melted, and remolded—frequently in a mixture with virgin plastic of the same type, this mixture is then used to manufacture new plastic goods. However, this approach cannot be applied to composites and thermosets. PET and various types of PE are recovered by processing mechanically, accounting for 9% and 37% of all plastics manufactured, while only around 1% of the residue is recovered.

Who are the stakeholders?

- **Tourist sector**

Plastic pollution can have hazardous effects in agriculture, fisheries and the tourism sector of a country. Microplastics and toxins from emissions deposited in the soil can cause soil pollution resulting in land infertility. Throwing single-use plastics in rivers, lakes and ocean can severely harm aquatic animals posing a threat to the fisheries sector.

A study by the Ministry of Environment, Forest and Climate Change has confirmed plastic to be the major source of waste in the tourism spots in Chittagong. The marine tourism spots can lose their attractiveness due to over pollution and mismanagement of plastics, harming the tourism sector in Bangladesh.

WASTE COLLECTED FROM FOUR SEA BEACHES OF COX'S BAZAR AND CHITTAGONG		
	NUMBER OF PIECES	PROPORTION OF TOTAL (APPROX %)
Plastic	4193	63
Foamed Plastic	860	13
Paper and Card-board	610	9
Rubber	237	3
Cloth	146	2
Glass and Ceramic	90	1
Metal	36	1
Wood	90	1
Others	443	7
Total	6705	100

FIGURE 5: Waste scenario in tourism spots in Chittagong

(Source: Ministry of Environment, Forest and Climate Change)

- **Recycling companies in Bangladesh that deal with sachet waste:**

1. OMFA EXIM BD- 49/1, Purana Paltan Line, Dhaka, Dhaka, Bangladesh
2. Kabir International- House 10, Block :L, Haliashahar, Agrabad Access Road- Chittagong , Chittagong, Bangladesh. Contact number- 01676383855
3. N&N Plastic Recycle Industries- Sonabaria, Kalaroa, Satkhira, Khulna, Bangladesh
4. M/S Bismillah Trading- 3 no. Fakirhat, Agrabad, Chittagong, Bangladesh
5. Eco Plastic Solution- Kha Para Road, Dhaka, Dhaka, Bangladesh

6. Nice & Rich Creation Trading Co. - Hashem Road, Matuail Dakkhin Para, Jatrabari, Dhaka, Dhaka, Bangladesh
 7. Punno & Paulin Enterprise- Dhaka-Tangail highway, Bangladesh, Karatia, Tangail, Bangladesh
 8. N. Islam & Sons- Chittagong, Bangladesh
 9. ASN Trading House- Kazi Alauddin Road, Dhaka, Bangladesh
 10. Polytech Recycling Co.- 4 TB Boundary Road, Moulovipara, Khulna, Jhenidah, Bangladesh
 11. Jong Hyun Hi-Tech Ind, Co, Ltd.- Bashundhara, Dhaka, Bangladesh
 12. Global Technology- Baganbari Ailabon Road, North Azibpur, Shiddhirganj, Dhaka, Narayanganj, Bangladesh
 13. Arn International Co.- 299 North Charta Lain, Rajgonj, Comilla, Chittagong, Bangladesh
- And many more

Conclusion

In summary, the report underscores the urgent environmental challenge posed by sachet waste in Bangladesh. The findings reveal a substantial annual production of waste, primarily from items like shampoo sachets. Concerns arise over waste management practices, with privatization trends impacting accountability. The low recycling rate and technological limitations highlight the need for innovative solutions. Additionally, stakeholders, including the tourism sector and recycling companies, play a vital role in addressing this pressing issue. Moving forward, collaborative efforts are crucial to implementing sustainable practices and mitigating the adverse impacts of sachet waste.

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