Training/Workshop Summary Report

'Waste management: Plastics and their alternatives' By *Chintan Environmental Research and Action Group, Delhi*

Date: 21st October, 2019 Venue:Seminar Room, Bharati College Time 11-1 pm

The training programme cum workshop on 'Waste management: Plastics and their alternatives' took place on 21st October, 2019 in the Seminar Room of Bharati College, C-4, Janakpuri, Delhi. The context was aiming to provide the skill for best means to implement the action in the future with the key stakeholders on the key issue 'Plastic waste management' and to take initiatives for a sustainable planet. It was organised in one session. It was started with introduction from Dr Mukti Sanyal, Principal, Bharati College, who gave a enriched talk on responsible behaviour of citizens and to follow the sustainable practices by involving the members of family and community in day to day life to minimise the impact on the ecosystem.

Objectives:

- 1. To sensitise the students about the plastic waste and their impact on human health and environment.
- 2. To develop awareness, skill, knowledge and to change their attitude towards it.
- 3. To study, analyse the repercussions and to bring some innovative solutions, ideas from the youth and to encourage to be eco-friendly young entrepreneurs.

Introduction:

Chintan Environmental Research and Action Group offers a range of trainings that are either hands- on, or to help understand and use the law. They train individuals, communities and institutions to reduce consumption and waste, segregate, recycle and compost. The NGO train officials and institutions to help learn about waste and e-waste so they are empowered to take good decisions. If you want to integrate waste pickers in your waste system, they can train you to do this too. Their oldest trainings are for waste workersdirectly for waste pickers who can read or for facilitators. Plastics industry and growing consumption of plastic products Plastics production in India has surged over the past 50 years – from 15 million tonnes (MT) in 1964 to 311 MT in 2014 – and is expected to double again over the next 20 years. The growth rate of the Indian plastics industry is one of the highest in the world: plastics consumption is growing at 16 per cent per annum in the country (compared to 10 per cent annually in China and around 2.5 per cent annually in the UK).

Most plastics do not biodegrade. Instead, they slowly break down into smaller fragments known as micro-plastics. Studies suggest that plastic bags and containers made of expanded polystyrene foam (commonly referred to as styrofoam) can take up to thousands of years to decompose, contaminating soil and water in the process. Plastic waste causes a plethora of problems when it leaks into the environment. To begin with, stranded single use plastics (SUP) create visual pollution.

Secondly, they are one of the main causes of urban flooding -- plastic items such as discarded carry bags, wrappers, gutkha sachets and packets block waterways and exacerbate natural disasters. By clogging sewers and providing breeding grounds for mosquitoes and pests, plastic bags can

increase the of vector-borne like malaria,

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transmission d i s e a s e s cholera etc.

of plastic particularly have been the airwavs hundreds of animals. evidence chemicals t h е plastic animal eventually human food products,

which contain carcinogenic chemicals like styrene and benzene, are highly toxic if ingested, damaging the nervous systems, lungs and reproductive organs. The toxins in styrofoam containers can leach into food and drinks. In poor countries, plastic waste is often burned for heat or cooking, exposing people to toxic emissions. Disposing of plastic waste by burning it in open-air pits releases harmful gases like furan and dioxin. The abundance of plastic production in the past two decades has triggered a host of problems in India. Burning plastics is not a viable alternative as it generates harmful toxins; recycling efforts often do not match the sustainability standards. As a result, plastics continue to fill up our drains and dumpsites. It is high time we addressed this issue and re-examined the contaminants which make up this seemingly omnipresent product in our world, and what is it that can be recycled and what is non-recyclable. Only after we do that can we work on a probable solution. As per the 2015 CPCB report mentioned above, approximately 70 per cent of the plastic packaging products in India (polybags, pouches used to pack products like gutkha, paan masala or various kinds of food items, etc) gets converted into plastic waste in a short span – which means they are discarded and disposed of after single use.

The report also says 66 per cent of the plastic waste in India comprises of mixed waste sourced mainly from households and residential localities different types of plastics mixed together or plastics mixed with other kinds of solid waste. This brings down the recycling capacity for this waste. On October 2 2019, the government of India clarified that plastic items would not be banned immediately. Instead, it has asked state urban departments and urban local bodies (ULBs) to shore up plastic waste management in states and cities respectively through heavy investment in source segregation and end-to-end waste management. States have been left free to introduce prohibitive action on single use plastics (SUPs) by identifying a clear list of products that need to be targeted. Plastics have become an omnipresent part of the everyday life of billions of people. Properties like low cost, low weight, durability, and barrier tendency have gradually raised the demand for plastic materials and it is bound to increase further in the coming years. However, the very same properties make plastic waste an unreasonable prospect when it comes to waste management.

It is established through the study that the amount of plastic waste generated in the country is uncertain. If the 2015 CPCB study is considered in concurrence with the CPCB annual report of 2018–19, then in a span of four years the reported generation of plastic waste has gone down by almost 60 percent. In terms of sources of plastic waste, it was found that close to 60% of the plastic waste is generated by the packaging sector (Rigid and flexible) and over 40% of this plastic falls under the 7th category of plastic- which is generally non-recyclable. Interestingly, packaging plastic also finds it way into the bin or becomes litter in a short span of time, sometimes in minutes. In terms of recyclers, a careful analysis of an industry estimate found that the number of formal recycling units in the country has gone down by 97% between 2018 and 2019, while the quantum of plastic recycled in the same period has increased by a meagre 8.3%. Data shared by CPCB also fails to establish the plastic waste processing/ recycling capacity of the country. The report also stresses how band-aid solutions like energy recovery are erroneously termed as recycling and are gaining popularity amongst producers and recyclers alike.

The speaker illustrated how plastic waste moves across the value chain, and how its price increases as it undergoes several unit operations for most of the categories of plastic waste. It also establishes that most of the plastic waste recycling in the country is done by the informal sector. The speakers introspects the current ecosystem of plastic recycling and recommends urgent need for policy reforms to deal with the plastic waste crisis of the country.

What do plastics do to our environment: Chintan Environmental Research and Action Group

Speaker: Mr Srijan and Mr Samuel

Leading a sustainable and eco-friendly lifestyle is not difficult. It just requires us to alter our mindset, as well as becoming concerned and sensitive towards the need of the hour. It is a simple idea which just needs us to readjust our consumption habits.

The "use and throw" culture that we have adopted shows our carefree attitude, clearly telling the world that the waste is not my problem as long as it does not enter my house. Little do we realise that this waste that we throw out each day from our homes, reaches landfills and water bodies. Most of this waste is non-biodegradable and will outlive us and our future generations, polluting and damaging our planet... the only 'home' known to mankind.If we carry on living like we are, we will soon have no air to breathe and no water to drink. Our bodies will be plasticised—just like the plastics in the belly of fish, birds and animals. Micro plastics have been found in about 80% of the seasalt we are eating and about 83% of drinking water contains single-use plastics in our bodies as well. Do you know most of the water sold in plastic bottles, which many people think it is safer, is actually more toxic due to leaching of toxins from the plastic in the severe heat?

It is necessary for us to be compassionate and aware of our environment and the impact of our actions on the same. Where there is a will there are always options of environment friendly alternatives available for use. It may be slightly costlier than cheap plastic... but I want to ask, is there any cost that is too high, when it comes to saving our planet and the human race from extinction?The day we all start treating our planet as our home, we will keep it clean. We need to look after our planet with love and care. We need to take actions in our lives and influence our friends and family. This will set into motion a domino effect of change towards sustainable living. Each one of us can influence and make a huge difference by changing the environment around us. All these little changes will fit like pieces of a puzzle, and our planet can be saved. No effort is either too big or too small when it is made to save our environment.

Our over-consumptive nature must undergo a change. We should ask ourselves, "Do we actually need what we are buying? Is it just greed or desire to be more fashionable or to be 'falsely inclusive' in a materialistic society?" We must learn to appreciate what we have, and true human values rather than possessions. We, the youth, can change our world into a sustainable one.

Over the past year and a half, we have realised that our consumption habits are directly linked to the environment—its pollution and degradation. And the environment directly impacts our health—whether we feel the impact today or ten years down the line. Few things that can be easily altered in our lifestyles:

- 1. Refuse all single use plastics when eating out—like plastic straws, cutlery, stirrers, cups, etc. If you cannot drink without a straw then buy a metal/bamboo straw and carry with you.
- 2. Carry your own steel/copper/glass bottle and refill it along the way. Refuse water in plastic bottles.
- 3. Carry a cloth bag in your car, handbag, and school bag for use in shopping or bringing back extra books from school.
- 4. Use paper files for school and office.
- 5. Switch to bamboo toothbrushes.
- 6. Do not buy fruits and vegetable packaged in plastic or styrofoam.
- 7. Use pens with refillable cartridge.
- 8. Refuse balloons as decoration.
- 9. Say no to glitter.
- 10. Gift unwrapped presents. Avoid waste generation.
- 11. Switch to glass or metal bottles at home.
- 12. Switch to steel or glass containers for storage of food in the refrigerator.
- 13. Keep a carton in your home, trash all your plastic waste like bread wrappers, empty packets of milk, chips, bottles, containers etc. Call a

recycling agency to pick it up once a month from your home. This way we ensure "responsible recycling", and less trash going to landfills and oceans.

14. Send all your e-waste for proper dismantling and recycling to certified recyclers. Collect and send once in a month.

Though recycling is not the final solution for the huge mountains of waste we generate. Let's all be a part of the solution to save your planet...

#Refuse #Reuse #Reduce #Recycle

- 1. Promoting alternatives in the market such as paper/ bamboo/steel straws.
- 2. Promoting cloth bags in the market.

Many students on their own will, are resisting use of plastics products as part of campaign initiated by Chintan Environmental Research and Action Group over the years. Initiatives such as use of old clothes to cover water filters, which work as a safety net to keep flies at bay and also keep the utensils clean are encouraged. Waste materials are used to make decorative items for class decoration and gifts for volunteers and donors. Reduce and Re-use concepts are also implemented in classroom with initiative like, broken shoe rack is up-cycled to keep books and files. It helps to keep the classroom organised and spacious. Old calendars are used as tool for teaching-aid, to teach children sight words etc., so as to reduce consumption of chart papers.

The next level of change started with celebration of events and functions with ZERO plastic waste. Plastic cutlery is forbidden and children happily bring steel glasses and plates from home and relish on piping hot 'biryanis' and burgers. Small changes in daily life can help us to reduce the waste which we are generating as a result of mindless consumerism. Children are making environment friendly choices for a greener planet. Is it too difficult for the adults to adopt such healthy practices? Isn't it time to learn from children instead of trying to force them to mindlessly ape our ways? The time for action is NOW.

Conclusion:

The main objective was to involve the students for their input, to take action in the future, to impart some knowledge and to change their attitude of consumerism habit. The Experts invited some students for some activities and there was interesting group discussion with some interesting questions which are given below.

- 1. Are we ready for alternatives of plastics to get rid off the problem in future
- 2. Which are the best alternatives to plastics?
- 3. What are the major obstructions to implement the plastic waste management and handling rules in India?

Recommendations:

- 1. Main impact of training is to improve the skills, and team work, to imbibe eco-friendly oriented thinking, to improve their opportunities in SME and larger companies after the programme.
- 2. To improve the communication strategy with the public/community, adapt and better synchronise trainings, extend the help, to do the survey analysis, etc
- 3. To celebrate successful eco-friendly projects, to make manual on practical tools and approaches.

Dr Anupama Mahajan Teacher In Charge Department of Environmental Studies Bharati College

Dr Mukti Sanyal Principal Bharati College

Submitted by

Dr Priyambada Patri Organizer Department of Environmental Studies Bharati College C-4, Janakpuri Delhi-58

Annexure-I

Attendance of the Students

Attendance - 21	10/19 Date	and both
B.A Psychology Hone.	B. Com	. (Hons)
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2 Nisha Ravi (1220)	-30 Bhash	2254
Rashni Pawar (1264)	31 Ritika	2,296
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91 Deepika (12.53)	26 Mani Tan	2231
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27 Amour (123)	49 Jonspilla	22,13
23 Xumana (1216)	50 Julahta	2204
24 Neuring (1251)	57 Dibsha	2/20
25 Nile (1221)	57 Shivani	2638
26 Janes I. to (1240)	53 Niketa	24.74
27 Chelia Gutena (DOF)	sy Nita	2480
28 Nidhi Bhard (1719)		

Annexure-II



Re: Workshop on Plastic Waste Management and Solid Waste Management

5 messages

 rachel@chintan-india.org <rachel@chintan-india.org>
 Tue, Oc

 Reply-To: rachel@chintan-india.org
 To: patripriyambada@gmail.com

 Cc: ankitap@chintan-india.org, srijanmathurphotography@gmail.com, samuel@chintan-india.org

Tue, Oct 15, 2019 at 8:28 AM

Dear Dr Patri,

Good morning, hope you are doing well. Apologies for the late response.

According to your email, I have gathered that a training would be possible for Wednesday, October 17th, 2019.

Do let me know when I can give you a call to discuss the same.

Thanks and regards,

Rachel Ann Kerr Program Officer A Voice for Waste

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Thursday, 10 October 2019, 11:39am +05:30 from samuel@chintan-india.org: