18 February 2020

Plastic Waste – A threat or an opportunity

- Anoop Kumar Srivastava

The question whether the plastic waste is a threat or an opportunity has no straight answer. The answer is yes and no. It depends on how we manage it. Simply put, if we don't manage it well, it is a threat. But it is an opportunity if we manage it well. In order to manage it well, the foremost requirement is to reduce the quantity of plastic waste being generated as the present level is too high for its proper handling.

Solid waste management has always been challenging for the Governments, municipal authorities, industry, businesses, neighbourhoods and individuals. Of this, plastic waste management has been even more challenging because of several factors such as multiplicity of variety of plastic, its non biodegradability, multilayer plastic being non-recyclable, etc. But we have to meet this challenge at any cost.

The positive contribution of plastics in our lives cannot be denied. Thanks to plastics, countless lives have been saved in the health sector. The growth of clean energy from wind turbines and solar panels has been greatly facilitated. Safe food storage has been revolutionized. These are some examples but the list is endless.

However, plastics have become a threat ever since we have started overusing plastics in our day-to-day lives, through the emergence of single-use plastics, or in other words, disposable plastics. The very low cost of plastic, its light weight and ease of production has made it ubiquitous, resulting in one of our greatest environmental challenges. By inventing single-use plastics, we have evolved a throw away culture, generating too much plastic waste. As a result, our oceans have become a dumping ground, choking marine life and transforming some marine areas into a plastic soup. In cities around the world, plastic waste clogs drains, causing floods and breeding disease. Consumed by livestock, it also finds its way into the food chain.

I am sure all of you are aware of the magnitude of the humongous plastic pollution in the environment caused by indiscriminate use of single-use plastics. As per the June 2018 report of the UN Environment titled, 'Single-use Plastics: A roadmap for sustainability', there is at present around 7 billion tonnes of plastic litter in landfills, dumps or in the environment. If the current consumption pattern of single-use plastics does not change and the plastic waste management practices do not improve, then by 2050 there will be around 12 billion tonnes of plastic litter in landfills and the environment. By then, there will be more plastic than fish in the oceans. Due to consumption of plastic litter, we are losing around 100,000 marine animals and 10,00,000 sea birds every year. Obviously, we cannot afford to continue with this kind of catastrophe. This must stop. The use of single-use plastics has to be drastically reduced, restricting it to the essentials only. Majority of the single-use plastics must be phased out in the shortest possible time. On 15th August, 2019, our Prime Minister had from the ramparts of red fort given a clarion call to get our country free of single-use plastics by 2022. Let all of us, that is, Central Government, State Governments, plastic industry, businesses, NGOs, all other stakeholders and individuals, stick to this deadline. Other nations too should follow similar time bound action as India as envisaged.

In order to cut down on consumption of single-use plastics and eventually to completely phase them out, we will need to change our habits too, which have set in over a period of time. Today, when we go for shopping, we go empty handed and do not carry a shopping bag along. We expect the shopkeeper to put the purchased items into a plastic carry bag. We have to change this habit. As individuals, whenever we go for shopping, we must carry a sturdy shopping bag made of cloth or jute

or some such eco-friendly material but not paper. The plastic carry bags can certainly be dispensed with change of habit. Apart from plastic carry bags, other single-use plastics of high consumption are cups, plates, cutlery, glasses, containers, straws, stirrers and PET bottles. As for the cups, plates, cutlery, glasses, containers, and stirrers, we should switch over to ceramic or metal items which are reusable. We can easily live without straws, as we can sip our drink directly from the glass.

Apart from the abovementioned single-use plastics, there are some other single-use plastics, for which alternatives are not imminent. For example, plastic pouches, in which liquid milk is sold, seem inevitable at present juncture. Fortunately, these pouches are made of high-grade LDPE, which is recyclable. While research and innovation may bring eco-friendly alternatives in future, till such time it happens, a system should be in place to collect and recycle these pouches. Same system should be evolved for similar other single-use plastics, for which no alternatives are imminent, but are recyclable.

Plastic bottle is perhaps the most debatable item. Drinking water is sold in bottles made of Polyethylene Terephtalate (PET) throughout the world. Most soft drinks are also sold in PET bottles. These are very high consumption items. The world community should definitely reduce its consumption as the present level of its consumption makes it very difficult to recycle the entire waste created by PET bottles. The governments, businesses, institutions and all other organisations can easily stop using PET bottles and serve drinking water in glasses. PET bottles perhaps remain a necessity only for the tourists and pilgrims. In the long run, more water ATMs will need to be developed to cater to the tourists. PET bottle may not be identified as an item for banning, but our overall reduced requirement with our changed habits can be easily handled through Extended Producer Responsibility (EPR). In several developed and developing countries, the introduction of EPR and deposit-return schemes have proven effective in reducing littering from PET bottles while boosting the recycling sector. Fortunately, PET is recyclable. If PET bottle manufacturers may be persuaded to discharge their EPR, by introducing deposit-return schemes, all of the PET bottles produced can be recycled. For example, while selling water or soft drink in PET bottles, the seller may keep a deposit of reasonable amount which shall be refunded to the consumer when she/he brings back the empty bottle to the shop.

The most difficult single-use plastic item to handle is the Multi-layered Packaging (MLP). According to the Ministry of Environment, Forest & Climate Change, replacement technologies are still not available to the manufacturers of products, which use MLP. MLP which is non-recyclable or non-energy recoverable or with no alternate use are required to be phased out in two years' time as per amended Rule 9(3) of the Plastic Waste Management Rules. The said rule was amended in March, 2018. Hence, this two year's window will be over in March, 2020. From that time on no such MLP can be produced, which is non-recyclable, non-energy recoverable and has no alternate use. This must be adhered to. The MLP is generally burnt in cement kilns as fuel, or used in road construction or used for energy recovery. More research and innovation are needed to find eco-friendly alternatives to MLP.

Finally, I want to say that in our war against humongous plastic pollution in our environment, all of us– including Governments, Businesses, Institutions, Organisations including NGOs, Media and above all – the People – need to act in concert with complete clarity of mind, precise plan of action, and with a great sense of urgency. In short, the best strategy for handling single-use plastics hinge around three Rs – that is – Reduce, Reuse and Recycle.

*****