



## **GSP Online National Teacher's Meet, 15-16 July 2021**

### **Briefing Workshop on Solid Waste Management Q&A**

**1. Schools are generating a lot of electronic waste these days. How can it be processed efficiently?**

As electronic waste has a hazardous component in it apart from the valuable metals and plastics. It is imperative that we channelize and process it only at authorized processing facilities where this kind of waste is dismantled and processed using scientific and environmentally sound methods. This is possible with the help of producer responsibility organizations (PRO's) who can help you to channelize your waste to authorized formal recycling units.

**2. What are some of the best approaches to manage sanitary waste?**

Awareness must be the first step towards this initiative. The users need to be educated on how to handle and properly dispose of the sanitary waste. The process of education must also involve on-site handlers on how to dispose of the waste.

In schools, a separate, covered dustbin should be provided in all toilets just for disposing of the sanitary waste. Directions on how to dispose of the waste properly should be placed in the toilets, preferably in a pictorial manner. Dustbin liners should be placed inside all dustbins and toilet paper should be provided to wrap the napkins properly. Once the bin gets full, the waste should be transported to the on-site napkin incineration facility, which is generally a napkin incinerator installed in an isolated location in the school premises. While procuring the incinerator machine, the following crucial points should be kept in mind:

- Machine should be NABL accredited
- Operating temperature should be around 800 degrees Celsius, and the flue gas should comply with all the discharge standards
- It should be equipped with APC devices
- The incineration capacity should be sufficient
- All necessary approvals should be taken before installation
- The ash should also be disposed of properly

As an alternative, the schools may tie-up with the nearest hospitals with biomedical waste incinerators or a common biomedical waste treatment facility (CBWTF) to handover the sanitary waste by paying charges.

Sanitary waste generated in households should be properly wrapped in newspaper before handing over to the waste collector. It must not be mixed with the organic waste; however, it can be disposed of along with inorganic waste. The best practice is to give it separately to the waste collector which makes the processing lot easier for the waste handlers.



Awareness drives promoting sustainable alternatives can also be organised in schools: reusable sanitary products; natural sanitary products made from materials such as banana fibre, bamboo fibre, sea sponges, water hyacinth, and so on. Low-cost incinerators, such as *Matka* Incinerator, can also be used in open areas (open backyard or terrace). Get more information on *Matka* incinerators here: <https://www.ecoideaz.com/innovative-green-ideas/ashudhinashak-clay-incinerators-for-sanitary-napkins>

**3. What is the optimum temperature for incineration to destroy sanitary waste?**

Incineration of sanitary waste should be carried out at temperatures above 800 degrees Celsius.

**4. Can leftover food be put in the compost pit?**

Absolutely, yes. Cooked food, vegetable and fruit peels, and dried leaves are some of the best feedstock for composting and are fairly easy to compost. Having said that, it is also important reduce the amount of food that gets wasted every day.

**5. Is there a difference between composting and bio culture?**

Composting is a process, where organic fraction of waste is converted into simpler compounds like carbon dioxide and water vapour. Bio-culture is an optional ingredient in the process of composting. This ingredient helps speed up the process of composting (acts as a catalyst for the bio-chemical process of composting) by increasing the microbial population in the composting pile.

**6. What is the best way of composting wet waste that residential schools can follow?**

The best way to compost your wet waste is to follow the 'old school' method of composting like pit composting or tub composting. This is very low on energy requirement, helps to create jobs for the local people and also aligns with the natural principle of composting. An organic waste convertor (OWC) with heating coils within the composting unit should be avoided, and its use should be discouraged at all costs.

**7. Our school is using grow bags for planting trees instead of pots. Is it a better alternative?**

We don't need alternatives for earthen pots. Alternatives are being searched for plastics and its allied products. However, due to factors like low cost and light weight, plastics have become difficult to replace. Grow bags are made of high-density polyethylene (HDPE), which is also a plastic. The environmental degradation (water, wind, sunlight) which may lead to leaching of additives in plastics is not understood for most of the plastic types, making it difficult to arrive at a conclusion.

**8. In the village area where our school is situated, it is difficult to dispose of plastic bags and packets since there is no assigned place. How can we manage plastic waste better in such a case?**

The first 3 Rs of the 5 Rs that were talked about in the session play a very important role here. Can we think of refusing the use of plastic within the campus and make the campus plastic-free? Can we reduce the plastic consumption per capita in the



premises? If the two options are not feasible, we may explore how to re-use the plastic waste and utilize it within the campus for beautification.

**9. Should the Government ban the manufacturing of plastic to curb plastic pollution?**

A blanket ban is not the solution to the plastic menace. This is because plastics are used for various purposes, such as from small shampoo sachets to medical equipment like syringes. India has pledged to phase out single-use plastic (SUP) by 2022. A committee set up by the central government has done an assessment based on the utility index and the environmental impacts of various kinds of single-use plastic and has suggested a handful of SUP to be phased by in multiple steps. This probably is the way to go, however, a greater number of SUP items need to be added to the existing list based on similar assessments, and the industry should be pushed to invest in research and development.

**10. How can we manage the medicine waste in schools and households?**

Expired medicines can be returned to the chemist shop since there is a market demand even for expired medicines. Empty strips, vials and bottles can be cleaned properly and placed in the dry waste bin.

**11. We segregate waste at home, but the waste collectors bring only one dustbin and mix all the waste in it. What can we do about this?**

Waste collectors' capacity needs to be built by making them understand why doing so is important and how they can earn if they follow the practice of segregating waste. They can also be incentivised for following source segregation.

**12. Sometimes, recycling waste creates more waste. For instance, newspaper is made into paper bags which cannot be recycled. How, then, do we make the ultimate use of waste?**

Paper can be recycled multiple times (if not contaminated). Although, with every recycling, the quality of the pulp goes down. Reusing newspapers to make paper bags is a good practice and should be encouraged. Even after making the paper bag, the same paper can be channelised for recycling. Every cycle of recycling saves trees, energy and reduces carbon footprint of the overall process.

**13. Will segregation, recycling and eco-innovation solve the problem of growing waste dumps?**

Definitely. The current situation that we are in makes it imperative for us to focus on segregation and recycling. However, the process of eco-innovation which will help us to come up with eco-friendly alternatives is a long and never-ending process and should run parallelly with good waste management practices.