

Sustainable Management of Organic and Sanitary Waste Report on the Workshop

earth&us collaborated with TATA MIT Center, SWaCH, and KKPKP to host a workshop on disposal and reduction of sanitary napkin and diaper waste (TATA MIT Center, SWaCH, and KKPKP also organized a parallel session on organic waste.) An estimated 70 participants participated in a 2.5 day workshop from Aug 18-20, 2014 at Pune.

Key learnings and insights from the workshop:

General insights:

- The film, [Masika](#), was greatly appreciated by the audience for its message: Participants felt that it gave the right amount of information to the general public on the growing waste stream of sanitary napkin and diaper waste and on alternative products; Participants were keen to have a copy of the movie, get it translated to different regional languages and have it shown on different regional TV channels.

Best practices for waste management: Currently, in India, sanitary napkin and diaper waste are flushed down the toilet, incinerated at low temperatures, and generally thrown away as unsegregated municipal solid waste.

- The learning from this workshop was that the current best practice for managing sanitary napkin and diaper waste was to segregate it, wrap it in a distinctive wrapper (recognizable to waste pickers) and landfill it due to the following reasons:
 - Flushing sanitary napkin and diaper waste is not recommended as it blocks sewers
 - It is increasingly recognized that incinerators are an inadequate solution to waste disposal. For example, in USA, no new incinerators are being built and existing ones are being phased out. Holland is the only country that relies on incinerators as opposed to landfills for waste disposal because the water-table in the country is so high that it cannot risk contamination of the ground water due to leachate from landfills. None of the incinerators in India operate at 800 deg Celsius (recommended by World Health Organization for disposal of health-related waste). It was noted that incineration of waste poses the problems of the formation of toxic emissions such as dioxins and toxic ash (the toxins are highly concentrated in the residual ash, which eventually have to be landfilled and risk ground-water and soil contamination). Additionally, there is just not enough scientific knowledge about the individual and combined effects of the hundred different kinds of chemicals present in the waste or formed during incineration, and thus waste disposal experts advise on adopting the precautionary principle and refraining from incinerating plastic waste.
 - Given the scarcity of land in urban areas and the growing opposition of villagers in having the countryside or their fields as dumpsites, landfilling is not an ideal solution, and yet it was seen as the least evil option to waste

disposal. SWaCH waste pickers pointed out that it was not enough for sanitary waste to be simply wrapped in newspaper and thrown into the waste, for they still had to open the wrapping to see what was inside. SWaCH has met with partial success in introducing distinctive paper wrappers for disposing sanitary napkins and stickers for disposed diapers to help with identification of such waste.

Legal options:

- SWaCH lawyer, Harshad Barde gave a detailed overview of the laws that pertain to this issue, including the constitutional rights of workers. He pointed out that the Municipal Solid Waste (MSW) Rules (2000) were currently under revision, and the latest draft had provisions for dealing with sanitary waste as a separate waste stream. However, the wording of the current draft left room for different interpretations. Strictly, according to law, sanitary waste should be treated as bio-medical waste and disposed accordingly, but there is opposition from municipalities to this classification due to the sheer volume (an estimated 5% of all MSW) of this stream of waste.

The Plastic Waste (Management and Handling) Rules, 2011 has an Extended Producer's Responsibility (EPR) clause, according to this clause, the municipal authority may ask manufacturers – either collectively or individually – to provide the required finance to establish plastic waste collection centres. The challenges are that the law does not clearly state that commercial sanitary napkins and diapers are subject to this law. It is left up to the court to interpret the law in this context. Secondly, by leaving the collection of the funds simply at the discretion of the municipal government, with no periodic management by the state government, reduces the scope of its applicability in the current Indian scenario. As with many other laws, due to the lack of rigorous enforcement, currently several plastic manufacturers blatantly defy this law easily

- Dr. Anne Schienberg gave a presentation on how EPR has operated in different countries. She recognized that EPR would be difficult to implement in this particular waste stream as it has zero value in terms of recycling. However, in a break-out session, she pointed out that manufacturers would be more likely to comply to following regulations if they perceived a “credible threat” to their operations.

Focus groups on certain key themes:

- Cloth-pads: In terms of cloth pads, the group, comprising 4 cloth pad manufacturers, reviewed all kinds of designs, from rag cloth that was used from old cotton material and neatly stitched cloth sanitary napkins in pink and purple and floral patterns. It was a "basket of options" as Lakshmi Murthy of Uger Pads put it. It was recognized that cloth continues to get a bad rap, even though, it is not cloth per se that is unhygienic, but practices around cloth can be unhygienic. Uger pads and Ecofemme who use new cloth for their pads, face some challenges in sourcing the raw material, while Goonj, which uses washed used cloth, finds it challenging to dry the rags in the monsoon. Ecofemme has been making steady roads into the Indian market, while Uger finds it difficult to sell cloth pads to the

middle class as they seek to emulate the upper class in adopting a use-and-throw consumer culture. Goonj caters to the rural poor and points out that re-usable cloth pads are not an option when water is a scarcity for the villagers.

- **Biodegradable pads:** This group identified organizations in different parts of the world that were doing research in making pads that were completely biodegradable. Awareness, infrastructure, access, distribution, cost were recognized as some of the barriers. Materials amounted to about 70 percent of the cost of the pad. Jaideep Mandal of Aakar innovations is on the verge of commercially launching a totally biodegradable pad that has been field tested. However, as the raw material used in the pad is bleached wood pulp, imported from N. America, the environmental impact of this pad is still questionable. Collaborative research into biodegradable pads using raw material that is sustainably produced would be key to furthering this field. It was also mentioned that, given the general lack of environmental awareness in India and the limited spending power, Aakar's biodegradable pads, which are a tad costlier than their non-degradable ones, may find it hard to compete in the market. The group agreed that it would be useful to collaborate and share resources on the use of cloth and to lobby with the government for the adoption of the cloth pads and other re-usable products, namely the menstrual cup.
- **Pad-manufacturing by Self-Help-Groups (SHGs):** A few years ago, in Tamil Nadu, over 900 self-help groups started making sanitary napkins with the use of a cheap machine developed by Jayashree Industries. Most of these units are currently ailing due to the following reasons: firstly, the machines frequently need repair and the women entrepreneurs do not show enough interest in learning the mechanical skills needed to maintain the machines; secondly, sales are low for the pads are of poor quality--apparently they are not used by the SHG members themselves. The only reason why these production units continue to operate is because the Govt. of Tamil Nadu gives them a guaranteed order as part of their pad-distribution scheme to adolescent girls. In Maharashtra, in a UNICEF-driven project, about 24 self-help groups were formed to produce pads. However, in both Maharashtra and in UP, pad-production started without creating awareness about hygienic MHM. This resulted in low sales and production units dying out. In Maharashtra, out of 24 units only 4 units survive. These 4 units have formed a federation and market pads under a common brand name called Nirmal. However, marketing has not kept pace with production, and unlike Tamil Nadu, there was no government support available to pad-producers. Adding to the problem is the fact that the logistics of supply chain to remote villages is also challenging. **More details on the state of SHGs in Tamil Nadu at**
- **Menstrual cups:** Due to the lack of representation from stakeholders in this sector, this particular topic was broached not as a focus group discussion, but as a lecture by the SheCup manufacturer followed by general discussion. The SheCup was introduced in 2010 in India under the brand by the Malani brothers in both the rural and urban sector. The project has met with limited success. The

manufacturer hoped that the sales of the cup would increase through word-of-mouth, but this did not happen as planned. The manufacturer still need to work out marketing strategies as well as a micro-finance strategy for rural and urban poor for meeting the high up-front costs of the cup. The SheCup is made of imported medical grade silicone as certified by US standards. In recent years, there are a few more manufacturers of menstrual cups in India, but as there no standards enforced in India, the quality of these cups is questionable.

Paving the way forward: Following are some suggestions and resolutions that were made at the workshop to continue collaborative action on this challenging issue on sanitary waste:

- From a systems' perspective, the following suggestions were made to have a nation-wide impact:
 - **Public awareness:** Start a national campaign with support from Govt. of India to ensure safe, hygienic, ethical MHM practices. It was suggested that such a campaign can be added to the Government's current campaigns and schemes on building toilets.
 - **Education:** Create training material under a creative commons license and a nation-wide training network to disseminate training to women in all sectors of the society
 - **Entrepreneurial practices:** Identify and help key re-usable products to scale up; Support R & D for sustainable materials in all re-usable products; Solve logistical challenges to ensure a reliable supply chain
- A group led by SWaCH and Chintan (a non-profit group based in Delhi) will continue to explore ways to make corporations responsible for sanitary waste they create.
- earth&us will take the lead in forming a consortium of organizations (mostly manufacturers of alternative products) who are committed to promoting safe, hygienic and ethical MHM practices. This consortium will be a peer-support group, and whenever feasible, seek to work on collaborative projects, and share their work under a creative commons license. Towards this, earth&us has already created a folder on Google Drive to share resources and ideas on a common platform. If the consortium had funds, collectively it would like to take up following activities as identified in a group-exercise conducted by earth&us at the workshop:
 - Create more awareness through educational programs (Some ideas: Bring back dignity and pride in re-using and recycling products; Break the uncalled-for social exclusion of menstruating women)
 - Create/extend "train the trainer" programs
 - Put together an engaging curriculum on MHM
 - Set up a knowledge database/expertise center
 - Actively network and create awareness through social media
 - Subsidize re-usable products, namely cloth-pads and the menstrual cup for the poor
 - Commercialize low-cost, indigenous, absorbent material from agri-waste/plant-based material

- Build better supply chains and develop scalable solutions for greater production
- Analyze, segment, and understand the market better
- Dialogue with rural communities to re-examine spending patterns and seek to effect behaviour change, e.g., build toilets before buying motorcycles and mobile phones
- Geographically increase the reach of the organization
- Do some KAP (Knowledge, Attitude, Practices) Surveys to understand the impact of current MHM programs
- Launch a national-level campaign (ideally piggy-back on the toilet campaign) to make Safe, Hygienic, Ethical MHM a developmental priority for India
- Research key issues around disposal of sanitary waste
- Work for instituting and enforcing policies at a national level for safe disposal of sanitary waste