Recycling Plastic

What Dharavi needs: A garbage policy

Those who recycle plastic want a better deal from the government and seek a policy that acknowledges that they sift through garbage, keeping the city clean

Geetanjali Minhas

itting on a plastic chair at the door of his workshed at New Maharashtra Small Scale Industries, Shakir Compound in Dharavi, Khwaja Qureshi takes stock of the work in progress. His workers walk in carrying large squares of translucent plastic sheets over their heads. Amidst loud banging, these sheets are broken into smaller pieces and further grinded down in a machine to turn into thin palettes, which are then turned into granules. It is sold to plastic manufacturers who mould it as per their requirements.

Born and brought up in Mumbai's Dharavi, one of the largest slums in the world, 40-year-old Qureshi is a native of Maharashtra's Nanded city. He has been running the workshop for the past 24 years. The workshop was set up by his father nearly 50 years ago.

Qureshi says all types of plastic are brought to his workshop by labourers for grinding, which costs between ₹1-5 per kg. If the material is dirty or soiled, it has to be washed before being turned into granules. Thereafter, it is packed in plastic sacks which are sold in quantities of 25 kg each.

Qureshi recycles nearly 40-50

tonnes of plastic every month. He pays a salary of ₹6,000 to ₹8,000 per month to his five workers besides incurring monthly expenses on electricity, rent of ₹3,000 per month to Brihanmumbai municipal corporation (BMC) and wear and tear of machinery. The government so far does not have a policy for plastic recyclers and people like Qureshi are hoping for one.

Recycling process

Plastic recycling starts at the level of rag pickers who collect plastic from streets and sell to scrap shops which buys at ₹5-7 per kg. Here, plastic is sorted out as per its quality and sold to a trader from whom it is brought for crushing and breaking into small pieces. It is then sent to the manufacturer



as raw material for moulding. On an average, 10,000-15,000 tonnes of plastic per month is recycled in Dharavi and depending on its grade, it yields an average of ₹30-110 per kg. Every day Dharavi alone processes 500 tonnes of plastic with a turnover of ₹50-60 lakhs approximately. As different types of plastic are part of the garbage in different ratios, it has to be segregated. Goods like refrigerators, washing machines, computer cabinets, automobile parts, polyurethane foam, plastic bags and toys often intermingle and they have to be separated for guality purposes. This sorting is done manually. This is important since the quality of plastic used for making a bucket and a car bumper is different.

"Rag pickers can lay their hands

V Chitore, chief engineer, development plan, BMC, told Governance Now that activities and industries permissible as per revised Development Plans and Development Control Rules will be allowed to continue. However, he did not specify the industries. only on absolute waste [but] that too is recycled. Superior quality waste like buckets, car bumpers and other plastic is never available [to the rag pickers] and is already sold in the market through the kabadiwalas. So whatever comes is of very little value and not attractive for processing," said PA Mahanwar, professor, department of polymer and surface engineering, Institute of Chemical Technology, Matunga. As an example, he points out that the cost of processing biscuit and chocolate wrappers and black garbage bags is higher than the cost of the final product.

The weight of each small plastic bag used for carrying vegetables and small groceries is not more than 5 to 7 grams and 1 kg of this material is barely Recycling Plastic

worth ₹60. Yet, the cost of processing will be more than ₹60. Though the government has banned plastic bags less than 50 microns thick, they are used everywhere, given out free, which end up choking gutters.

Mahanwar, who has been handholding the recyclers with technology processes instrumental in micro, small and medium enterprises (MSME), has been taking up their cause. He said that there are 40-45 varieties of plastic and it is very difficult to process them together as acrylic, polycarbonate, etc. have to be separated before processing to get their value. If that is not done, the properties are lowered and one cannot get the value of the product.

He said that unorganised recyclers play an important role and are doing a fine work of segregating garbage which includes dismantling electronic goods and separating metal from plastic like computers, TV sets and mobile chipsets. Often the quality of goods in garbage is so bad that it is very difficult to separate it, yet the government has so far not acknowledged the recycling work and has done nothing to help.

Policy woes

The lack of policy regarding plastic recyclers is not helping matters.

Hariram Tanwar, a former headmaster and general secretary, All Plastic Recyclers Association (APRA), said, "If we stop recycling plastic, entire Mumbai will become a dumping ground as 40,000 tonnes of plastic is recycled every month in the city. We recycle all types of plastic products and we asked the government to consider us as 'safai karamcharis', but the government has refused to acknowledge us. BMC cleaners get salaries, gloves and masks. We get nothing. We sort garbage with bare hands without gloves despite the fact that we are cleaning the city and recycling waste, paying income tax, sales tax and octroi."

Hariram, who is also associated with People's Responsible Organization of United Dharavi (PROUD), an NGO, and Dharavi Businessmen Association, added, "A petition was filed in court that plastic water bottles choke



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drains and are not recyclable. But we said that these bottles are very useful and 100 percent recyclable. Eighty percent of its material is fibre, 10 percent is used as packing rope (patti) and another 10 percent is used for agricultural purposes like tying up and hanging vegetables and fruits like grapes. This is better than a cotton rope which does not last long."

Mahanwar added, "Without the contribution of these people, there will be litter all around and it will be difficult for the government to control and manage disposal of garbage which is already a major problem. Besides, they work in unhygienic conditions, use outdated technology which affects their efficiency. While compostable material can be dumped in dumping grounds, plastic has to be removed which is where these workers play a major role. Value addition has to come at the level of rag pickers and processors. If the government provides them with a common facility for sorting and financial support in the form of subsidies, they can use advance technology."

Unable to pay ₹19 per unit of commercial electricity, and high rentals,

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Ladulal Jain President, APRA

recyclers are forced to shut their units and move out to places like Nalasopara, Vasai and Silvassa. Now only ancillary work like sorting and grinding is carried out in Dharavi.

Encouraged by the MSME ministry, the industry body has been helping recyclers prepare a strong case before the government so that they get due recognition. "With the help of MSME ministry, we have now asked the government at the centre and the municipality to provide us land so we can set up a plant there. Municipality dumps the garbage in dumping grounds which includes plastic. If the government provides us a place, we guarantee that not a single gram of plastic will go to the dumping ground and we will convert it into a green zone," said Ladulal Jain, president of All Plastic Recyclers Association whose members include rag pickers, recyclers and manufacturers.

The MSME ministry had invited Tanwar and Jain to present their case before the prime minister during the Make in India week held in Mumbai in February.

"We are proposing to the central government and BMC to have common segregation and washing units so



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Vinod Shetty

Founder, ACORN Foundation India

plastic is separated from garbage, segregated, processed and sold. Similarly organic material is composted and manure sold. To avoid problems of pollution and smell, the setup can have ventilation. Alternatively, we are also proposing to have a ward-wise collection and sorting or the municipality should come out with some system where combined waste of two or three wards is collected together at a common ground and the association will sort and compost organic waste there itself," said Mahanwar.

While the proposal sounds promising, it may meet strong resistance from transporter/contractor lobby who stand to lose business with a decentralised mechanism. As all garbage has to be disposed of on the same day, BMC engages 1,200 dumpers daily to dump waste at different places. A decentralised system will mean reduced distance for transporting garbage, thereby lowering revenue for these contractors.

Mahanwar added that awareness has to be generated at every stage for collecting and disposing garbage and it has to start right from home. People are throwing all types of waste and separating plastic out of this garbage is a big problem.

Seema Redkar, former officer on special duty, solid waste management, BMC, said that if a part of plastic recycling involves melting, it may be polluting the environment, but if the process involves cutting and shredding, then it is non-polluting.

She added that all waste, including leftover from processing, should be collected and sent to a single collection unit. "Different agencies including MPCB (Maharashtra Pollution Control Board) and BMC are passing the buck and there is no clear-cut responsibility. A single authority has to take responsibility. There is a lot of political interference. There has to be regular and immediate monitoring, which does not happen anywhere in India. This is the biggest failure," Redkar said.

Pollution control

Many plastic recyclers in Dharavi said that the MPCB has told them to obtain their non-polluting certificates for which no objection certificate (NOC) have to be taken from different departments like BMC, fire brigade, health department, etc. This requires endless rounds to these offices and paying huge amounts of money.

V Chitore, chief engineer, development plan, BMC, told Governance Now that activities and industries permissible as per revised development plans and development control rules will be allowed to continue. However, he did not specify the industries.

RB Sankhe, deputy chief engineer, Dharavi Re-development Project, said that as of now, plastic recycling work falls under the purview of BMC and under the government of Maharashtra rules regarding pollution control, plastic recyclers have to prove that their work is non-polluting.

Health is a matter of concern, but the plastic recyclers claim that none of them have taken ill due to the work they do.

Hariram said that workers who have been recycling plastic for 50 years have faced no health problems. "So far we have never heard that anyone died of cancer or tuberculosis due to recycling work [in Dharavi]."

Advocate Vinod Shetty, founder, ACORN Foundation India that works in Dharavi and trains and organises rag pickers, said that while burning of plastic is very hazardous, only crushing work is done in Dharavi.

He said, "Just like in the grey market, within the community some people undertake hazardous work which involves removal of plastic from metal. But this is done in mangroves (in Mumbai's outskirts) in collusion with the local police who take 'hafta' from these people to allow their activities. Due to this all recyclers get a bad name. This has to stop.

"Their work is very essential for the city. Big industrialists are not interested in it as there are no profits. Once the government gives incentives, they will jump in and take it over. Today when there is no money in it, people who are doing the work earn bare minimum wages, working and living in horrible conditions without toilets and hygiene because they have no other choice. The moment redevelopment starts, the area will get water, sanitation and other necessities and all middle-class people will move in," said Shetty.

"If the government is serious, it will try to protect this industry. The government is giving land at very cheap rates to promoters of industries like automobiles, manufacturers of luxury goods, etc., offering cheap loans, tax rebates, duty drawback, export/ import licences and various concessions to encourage industries, it has so far had no role in establishment of this industry nor even bothered to do anything for recycling. Both residents and the government are exploiting these people who are working under grim conditions for a livelihood as they have no other choice," said Shetty.

Environmental activist D Stalin of NGO Vanashakti too said that the positive role that these plastic recyclers play is very important and cannot be ignored as without them the city will be full of filth. ■

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