Towards sustainable urban development

Following international practices, it is important to set standards and have quality certification for recycled materials so that more and more builders are encouraged to use these materials and there is wide variation across cities.

First and foremost, waste generators must be made aware of the nature of the hazard posed by C&D waste, as cooperation from the community is critical for the success of the efforts of urban local bodies. C&D waste increase in size and volume over time, and it also generates a large amount of hazardous gas and dust from the porous waste. Waste must be kept out of the waste stream, and waste generators must be informed of the actions they need to take to avoid the hazard.

As in the case of municipal solid waste, C&D waste is important to begin with the first basic principle of waste management that curtails the quantity of waste material that is generated. The construction of buildings enables much larger recovery of unnecessary material for reuse than the previous generation. The U.S. Environmental Protection Agency (EPA) has highlighted the growing importance of construction and deconstruction (CD) waste in Indian cities, and it has been a successful model for waste management in cities. However, the problem lies in the fact that C&D waste is often not collected and hauled away, and it is left on site to be burned or buried. The waste is then exposed to the elements, and it is often not properly disposed of.

The C&D Waste Management Rules were issued by the Ministry of Environment, Forest and Climate Change in March 2016. For these to be translated into action, municipal corporations, municipalities and other urban local bodies need to provide waste management plans, notify by-laws with penalties for non-compliance, and put in place enforcement mechanisms. Facilitating recycling of C&D waste has to be an important part of waste management plans.

A proactive effort on the part of municipalities is called for to keep C&D waste off the roads, pavements and vacant sites, and encourage its transport to recycling units. Bengaluru, while giving sanction to building plans, also collects ground rent for the use of pavement for storing C&D materials for 3-2 years of construction. Such pavement use should be limited to 2-3 months or until completion of the first slab, and thereafter progressive escalation of the ground rent should be explored, to discourage on-site storage of construction materials. Municipalities must also remove unauthorised dumpsites on vacant land—public or private—while recovering the cost of transporting the waste from these sites, and the penalty from the owner. Inclusive rights to property and laws of trespass ought not to come in the way of removing a public nuisance. Vacant site owners are often untraceable in the records, and owners, titles and boundaries are typically unclear. Debris dumping is often accepted if not welcomed by owners to prevent encroachment.

Cities have already begun to adopt commercial activity not only bar in a residential area as it inconveniences their daily activities but also due to the ecological benefits. Public benefit criteria on occupied spaces are entertained, and it is why they are not cut in vacant sites that invite pollution and ill-health.

There is a need for public discussion on measures to ensure beneficial use of vacant sites without harming the interests of site owners but supporting the rights of neighbours for a pollution-free environment. Property tax on vacant sites should be the same as the tax on a ground floor building on a similar plot area and interest must be charged on tax dues. Admittedly, property tax rate tends to be very low in most Indian cities, but tax on vacant sites could encourage a signal to owners to get on with building. Unforeseen plots in any case should be periodically cleaned or fenced for nuisance-proofing by the municipal corporation and changes added to property tax dues.

Where site owners are untraceable and the vacant site is unfenced, the municipal corporation should put a notice on the site that the site is about to be used as a green park or playground with no structures on it, while giving a hotline contact number for objections. Unauthorized encroachers cannot take advantage of the situation to build illegally, as the site is being monitored by the resident welfare association (RWA). An agreement can be entered into with the owners that they will construct within a given space or sports area in no way infringe property rights to anyone other than the rights owners will not be deemed trespassers.

Even though Delhi is abode of other cities in recycling its C&D waste, it also has a long way to go. 11% Environment has three recycling plants with a total capacity of 2.660 tonnes per day in Delhi, turning out aggregates (Rahu), RMC (ready-mixed concrete), kerb stone, tiles, paver blocks and manufactured sand, etc. For construction, but much of their installed capacity lies underutilised. In September 2018, 5.5 kg of C&D waste was recycled per tonne of C&D material was lying at these plants for want of offtake despite stipulation for use of recycled materials. Backward and forward linkages need to be forged with all recycling plants so that C&D waste reaches the recycling plants and there is effective demand for the output from these plants. Bengaluru, Ahmedabad and other cities have been recycling C&D waste and there are plants for recycling C&D waste and more are being planned. Government construction projects can be made to use these plants for recycling C&D waste and there is effective demand for the output from these plants. In Mumbai, the government has set up C&D waste recycling plants and there is effective demand for the output from these plants.

It is important to set standards and have quality certification for recycled materials to encourage the use of these materials and contribute to the cause of sustainable urban development.