

# Asia's Waste Crisis

A festering issue.

by Havovi Joshi



"This may not come as a surprise to many—the world is on a trajectory where waste generation will drastically outpace population growth by more than double by 2050." With this stark warning, the 2018 World Bank solid waste management report continued, "Without urgent action, global waste will increase by 70 percent from current levels by 2050, amounting to an estimated 3.40 billion tons."<sup>1</sup> In the low-income countries, the situation is grimmer—the total quantity of waste generated is expected to increase by more than three times by 2050.<sup>2</sup> Given the rampant urbanisation, population explosion, and strong economic growth in many parts of the developing world, it is clear that waste management, an altogether unpleasant challenge, will particularly affect these countries.

Not only do low-income countries have to grapple with their own waste, but they also have to deal with the waste trade and dumping that comes from high-income countries. While accounting for only 16 percent of the world's population, high-income countries generate about 34 percent, or 683 million tonnes, of the world's solid waste.<sup>3</sup> Solid waste includes organic waste which is made up of food and green waste. As low-income countries continue to grapple with waste management, straining under the volume of trash that leads to uncontrolled dumping and overflowing landfills, it is causing severe pollution and greenhouse gas emissions, exacerbating urban flooding, and endangering the lives and livelihoods of particularly the poorest and most vulnerable. So what is being done about it in Asia?

## THE WASTE CHALLENGE IN ASIA

Many Asian countries have drawn up national strategies to address waste management through their policy and regulatory frameworks, and put in place policies that promote green growth and sustainable development. However, nations across the continent are at vastly different stages of waste

management. On one end, countries like Japan, China, and Singapore are ahead of the curve, and have invested in sound and structured waste management systems. On the other end, less developed nations continue to dispose most of their waste at open dumps.

Only 30 percent of global solid waste undergoes recycling and composting or treatment through modern incineration, another 33 percent is openly dumped while the remaining 37 percent is disposed of in landfills.<sup>4</sup> A closer examination tells us that the use of controlled landfills is found primarily in the higher income countries. In the low-income countries, and that includes those in Asia, the statistics are far more distressing: over 90 percent of their waste is being openly dumped or burned.<sup>5</sup> Indonesia and the Philippines, for instance, dump almost all their waste in poorly managed landfills.<sup>6</sup>

## TAKING THE TRASH OUT

There are glimmers of hope that the waste management situation in Asia is improving. In 2017, China, the world's top



Not only do low-income countries have to grapple with their own waste, but they also have to deal with the waste trade and dumping that comes from high-income countries.

## JAPAN: AN EXEMPLAR IN WASTE MANAGEMENT

Japan's transformative story demonstrates how successful waste management models can be implemented within just two decades. Thirty years ago, the overwhelming majority of Japanese waste went to landfills or illegal dumps and only five percent of municipal waste was recycled; by 2018, only 1.2 percent of Japanese waste was destined for the landfill. This change was brought about in 1993 when the Basic Environmental Law, which includes waste management, was passed. While it is a national law, its execution was shrewdly left to local governments.

Collection of household trash is managed by municipalities, and households and firms are mandated to separate trash into items that can be recycled and those that can/cannot be burned. The majority of Japanese waste, about 70 percent, is turned into energy via a process that engages stakeholders like local residents. Japan's success story underscores the importance of effective local execution, high levels of civic engagement, imaginative public-private interaction, and conversations about waste to bring about behavioural changes.

Source: Geoffrey Jones, "Asia's Waste Management Failures Reach Crisis Levels", Nikkei Asia, September 5, 2018

recycler, banned imports of plastic trash. One unintended consequence of this decision was that millions of tonnes of trash were diverted to less-regulated countries in Southeast Asia. Interestingly, as if taking a cue from China, and also due to mounting pressure from local environmentalists, Southeast Asian countries such as Indonesia, the Philippines, and Malaysia have also started rejecting trash imports from developed countries like Canada and Australia.<sup>7</sup>

However, a lot remains to be done in most parts of Asia. For example, even though we have started to see the emergence of regional agreements, such as the June 2019 ASEAN Framework of Action on Marine Debris signed by the leaders of all the ASEAN countries, implementation and enforcement have been weak, resulting in disappointing collection and recycling rates.<sup>8</sup> For instance, barely 20 percent of the waste in Pakistan and Cambodia is collected and disposed of in a hygienic manner.<sup>9</sup>

There is also an urgent need in Asia to introduce enforcement and incentive programmes, along with education and awareness campaigns, to encourage people to reduce, reuse and recycle, and only use disposal as the very last resort. Collaborative decision-making involving all stakeholders is crucial for ensuring the acceptance and success of public waste management initiatives.

To improve Asia's solid waste management efforts, research from Asia Development Bank (ADB) notes some consistent challenges and proposes five lessons that can be applied to the region.<sup>10</sup> First, adopt the best available technology that can be afforded. Second, improve waste collection and haulage efficiency by encouraging initiatives like separating organic and recyclable waste from the

residual waste. Third, improve landfill practices and management to extend their lifecycle. Fourth, involve the private sector, as it can bring in financial resources as well as enhance efficiency. And fifth, implement social marketing campaigns that can help spread the message, and encourage enduring behavioural changes.

Until the above happens, Asia's overflowing landfills are here to stay. **AMI**

## Dr Havovi Joshi

is Director of Centre for Management Practice at Singapore Management University

## References

- Silpa Kaza, Lisa Yao, Perinaz Bhada-Tata, et al., "What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050", Overview booklet, The World Bank, Washington, DC, 2018.
- Ibid.
- The World Bank, "Trends in Solid Waste Management", 2022.
- Silpa Kaza, Lisa Yao, Perinaz Bhada-Tata, et al., "What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050", Overview booklet, The World Bank, Washington, DC, 2018.
- Ibid.
- Geoffrey Jones, "Asia's Waste Management Failures Reach Crisis Levels", Nikkei Asia, September 5, 2018.
- Patpicha Tanakasempipat, "Southeast Asia Should Ban Foreign Trash Imports: Environmentalists", AsiaOne, June 19, 2019.
- United Nations Environment Programme, "Waste Management in ASEAN Countries", 2017.
- Geoffrey Jones, "Asia's Waste Management Failures Reach Crisis Levels", Nikkei Asia, September 5, 2018.
- Andrew McIntyre, "Waste Management in Asia: 1 Goal, 5 Cities, 5 Lessons", Asian Development Blog, June 23, 2017.