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**CPEC and recycling zones**

Waste or scrap is both an asset and a liability. If one can retrieve good materials economically and responsibly (environmentally speaking), it can create economic opportunity, promote industrialization and generate employment.

However, if a country cannot process waste properly and encourages waste imports based upon low-paid workers, that waste may be a liability. China has developed out of poverty by, among others, processing and recycling the waste imported from industrialized countries. It has stopped it because it does not need it any more. It has its own materials, if not waste, to utilize. And it wants to clean up.

The world plastic recycling trade alone has been a $200 billion per year business handling 270 million tonnes; half of that is taken up by China. China has made important changes in its waste imports policy. It has banned imports of post-consumer plastic waste. From the US alone, plastic scrap exports to China used to be around 250,000 tons, which has been brought down to zero. Overall, US exports of plastic scrap have been reduced from 750,000 tons to 375,000 tons annually.

Developed countries have a temporary problem of how to dispose waste that has been denied by China. Although other developing countries have started accepting plastic waste, their capacities are still far too less developed to substitute China. Resultantly, landfills have a problem in the US, although Europe has been classically relying more on incineration than land filling; the latter, therefore, is not much affected by Chinese waste imports ban.

Until quite some time into the future, waste processing will remain labour intensive, although automation is fast creeping in. Developing countries, even with improvement in safety and environmental standards, will remain competitive in this business. And eventually and hopefully, local waste generation will increase if and when waste imports and trade market dries up.

An important and emerging area in waste processing is e-waste in electronics and computer equipment. Cathode Ray Tubes (CRT) contain two kg of lead alone. Although CRTs, being heavy energy consumers, are no more manufactured, used units are still around and would be candidates for waste processing.

Roughly, 70 percent of global e-waste ends up in China. China’s domestic contribution of e-waste is also substantial. In 2012, the country was the world’s second largest producer of electronic waste, generating 229.66 million units, compared to the 32.99 million units generated in 2001. China is now the second largest e-waste producer in the world after the US, creating up to 6.1 million tons per year. This amount is expected to continue rising with China’s economic development, technical innovation and urbanization as more electronics are created and consumed, and disposed.

China’s Guandong province is the largest electronic waste site on earth. Guiyu town has up to 5,000 workshops treating up to 70 percent of the world’s e-waste, and employing around 100,000 people. The disposal sites recycle 15,000 tons of e-waste on a daily basis. Over 80 percent of the town’s residents make a living off of manually disassembling and disposing e-waste full-time.

In 2012, China adopted the extended producer responsibility (EPR) system from the EU, which held manufacturers responsible for the collection and recycling of electronics. Otherwise known as “Producer Take back,” the EPR management system requires manufacturers to carry out environmentally safe management of their products even after they are discarded.

Many companies, like Nintendo, are aware of the problem of e-waste and are developing their own initiatives. China Mobile, Motorola, and Nokia collaborated in launching a recycling programme where they took back used cell phones and electronic accessories. This “take-back,” or “Green Box” programme safely collected about 20 tons of e-waste by 2009.

Pakistan’s e-waste issue is no less. TV sets, refrigerators and other kitchen appliances are consumed and discarded in millions. The worst example is of automotive batteries. Most of the used batteries end up in informal setups which remelt lead cells in an extremely primitive and dangerous manner affecting their own lives and those living in their poor neighbourhoods. A formal recycling industry can possibly bring them into some kind of safe handling system as subcontractors. The advent of EVs and the batteries thereof will further exacerbate the battery disposal and recycling problems.

The Basel Convention forbids members of the OECD from exporting e-waste to non-OECD countries. However, this has not prevented e-waste landing into developing countries. American, Chinese and even European companies may be encouraged to install and transfer waste processing factories to Pakistan. It may be legally possible under a negotiated system being a part of the ‘Producer Responsibility System’. The regenerated material can be sent or sold back to the original owner of the waste. A lot of left material can help promote electronic and metal industry.

After China’s plastic ban, many Chinese companies have gone bankrupt and many have shifted to other South East Asian countries. Today, Malaysia is the biggest plastic waste processor; other beneficiaries are Thailand, Vietnam and Indonesia. Due to the sudden influx of plastic waste, there are problems in these countries. In time, they will be able to install the required waste water treatment and other facilities.

E-waste and plastic waste can be imported into Pakistan, if state-of-the-art electronic waste processing facilities are brought about. In this, China can be of great assistance. Chinese waste processing companies can be encouraged to relocate their factories. They have ready customers and are part of the international supply chain. In fact, an SEZ can be dedicated to waste processing. Gadani can be revived and an SEZ developed there. It would not be simple plastic waste disposing; there would be a whole downstream industry producing a wide variety of plastic and products starting from sheets, shoe-soles, construction materials, furnishings, doors and windows, sports goods, furniture etc. The list can be very long. Companies like IKEA may like to have a plant around or in such facilities. Similar would be the case with e-waste.

Every country has its own socio-economic situation and peculiar circumstances. If European, American or Japanese safety and environmental standards are enforced here, no car can come on the road, no factory can run and no electricity can be produced and no refinery can function. In fact, old environmentally unacceptable refineries in the exporting countries have been installed here happily and without any qualms. Similarly, one should not oppose the transfer and relocation of waste processing industries which have so much potential benefit. Poverty and unemployment are the worst enemies to fight.

Pakistan’s CPEC authority and the Ministry of Commerce along with the Ministry of Industries should give due consideration to this proposal. One has to be quick in identifying and seizing upon opportunities and the gaps being left by China. Such windows of opportunities do not last long. There is always some competitor lurking.

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