PHOTOS BY AMITABH SHARMA





Floppy disc centres, clips, pins, and the other materials left over after fibre is extracted at Corelex San-Ei Regulator Tokyo Mill, Kawasaki city.

Yoichi Ishii, section manager of Corelex San-Ei Regulator Tokyo Mill, one of Japan's major manufacturers of toilet paper, explains the use of the raw materials.



CONTRIBUTOR

OW MANY milk cartons does it take to make a roll of toilet paper?" asked Yoichi Ishii, section manager of Corelex San-Ei Regulator Tokyo Mill. The answers were way off the mark, ranging from 25 to 75.

"Five," Ishii said as he tore a section of the carton, revealing the fibrous core ... but wait! Milk carton and toilet paper ...?

The answer is recycling, which is core and critical to the value chain of sustainable living and also a way of life in Japan. And the city of Kawasaki, south of Tokyo, has given sustainable living a new meaning.

At the Corelex factory, there is more to this story – trucks of discarded documents, cardboard boxes, paper from recycling plants are delivered every day.



Train tickets are being used for more than a ride.

"We get a lot of discarded confidential documents in sealed cardboard boxes," revealed Ishii. "These boxes are immediately soaked in water."

After one or two days, the paper becomes pulp, and the metallic parts – clips, binders, stapler pins, and plastic from the file covers – are separated by centrifugal force.

Every material finds use as an end product.

"The metal is sold as recyclables; the

plastic is burnt to dry the soaked paper; and the ash is collected and sold to the cement factories as raw material," Ishii shared.

While the documents come free of cost, the train companies send their stock of used ticket stubs to Corelex.

"They (the train companies) are very keen on recycling," he said. "And they pay for this service."

On an average, Ishii said, 1,000 to 2,000 tickets make one roll.

The section manager said that the manufacturing process is one of ingenuity, trial, and error, and perfecting the art of this process.

"All the machines in the factory have been made by us," he said. "We learnt from our experience, imperfections and failures to build an efficient system."

## PRISTINE AND CLEAN

Japanese take pride in what they do and put their heart and soul in it. The factory floors are pristine and clean. There is attention to detail, right from how the hard hats, cleaning material, and uniforms are stored to the production line.

The core manufacturing facilities are housed on the third floor of the factory. "This is to prevent large-scale damage in case a Tsunami hits," Ishii said.

Every step of the process is automated to the optimum, and these processes are supervised electronically and by personnel on the shop floor.

The pulp is mixed, processed, dried, and rolled; passed via a conveyer belt to be put in tubes; cut to the required size and packaged for shipment. A set of robots are employed to sort the bulk packages according to their brands. "We started using robots to increase the efficiency," Ishii said.

Corelex produces 1.2 million rolls per day made from 100 per cent waste and recycled paper. "The product is environmentally friendly and also costs less than toilet paper made from pulp," Ishii said.

Average retail price for Corelex toilet paper is 200 Yen (J\$247 approx) compared to 350 - 400 Yen for one made from pure pulp (J\$432 - J\$495 approx.).

Ishii is proud of what the company has achieved and said it is their mission to cut emissions and effluent to zero, which is enshrined in a metal '0' that sits on top of a fish tank at the entrance to the facility. "The tank is fed with recycled water, and if fish can live and thrive in it, we can create and sustain life for us and for generations to come," Ishii said.

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