

Plastic waste to fuel trains

OUR SPECIAL CORRESPONDENT

New Delhi, April 17: Indian Railways is mulling a plan to turn waste plastic bags, bottles and cups into diesel through a waste-to-wealth technology developed by a government research laboratory in Dehradun.

Union science and technology minister Harsh Vardhan today announced the railways plan to set up plants to produce diesel to run trains through the technology that can turn 1,000kg plastic waste into 800 litres of high quality diesel.

“Plastic waste will henceforth be viewed more as a resource than a nuisance,” Harsh Vardhan said. “We... have the capability to convert broken buckets, mugs, bottle caps and other polyolefin products into the cleanest grade diesel.”

Scientists at the Dehradun-based Indian Institute of Petroleum — a laboratory under the Council of Scientific and Industrial Research — who developed the technology are currently discussing plans to scale up the process with senior railway officials.

The railway ministry estimates that the nation’s vast fleet of locomotives use up over 2 billion litres of diesel every year, for which the bill is over Rs 15,000 crore.

“We began our experi-

ments about 10 years ago with table-top glass apparatus, then scaled it up to a 10kg-per-day plant,” Madhukar Garg, director of the IIP, told **The Telegraph**. “We began talking with the railways about a year and a half ago.”

Garg said the railways is initially examining the feasibility of setting up three plants to process 1,000kg plastic a day, primarily to manage the internal plastic waste generated by passengers.

The sites for the three plants are yet to be finalised by the railways, Garg said. The diesel extracted from the waste plastic is expected to be priced competitively, he said.

India’s Central Pollution Control Board had over two years ago estimated that 60 cities across India cumulatively churn out about 15 million kg of plastic waste every day, or enough of waste polythene of the type used in shopping bags to fill a tower the size of the Qutb Minar every second day. Much of the country’s plastic waste is disposed in landfills despite efforts to reuse it in road construction and cement kilns.

“Plastic is a part of our civilisation — we can’t just eliminate it,” Garg said. The IIP technology can process polyethylene and polypropylene — which account for about 60 per cent of plastics consumed — into fuel.