Biodegradable tableware from NIIST

From agricultural residues/by-products as alternative to single-use plastics

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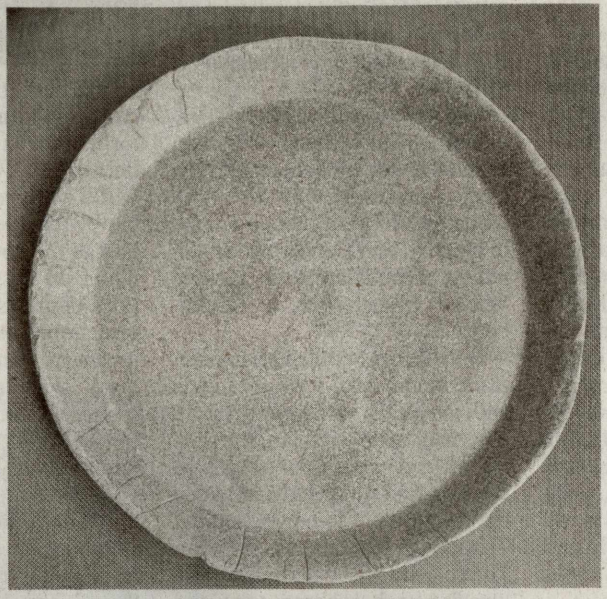
The CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) here has come up with an alternative to single-use plastics.

NIIST scientists have developed a technology for manufacturing biodegradable tableware – including plates, cutleries and cups –from agricultural residues and byproducts. The know-how was licensed to Marikar Green Earth Pvt Ltd. last week.

A huge amount of agricultural residues/by-products are released into the environment from food processing sectors. The utilisation of these wastes as an alternative to single-use plastics provides immense opportunities, says the NIIST.

Primary agricultural residues are generated as a by-product during the harvesting of agricultural crops while secondary agricultural residues are the leftovers from post-harvest processing. According to the NIIST, the biodegradable tableware developed from them has a shelf-life of up to six months and heat resistance up to 100 degree celsius. The developed product is found to be ideal for replacing the single-use plastics, according to the NIIST.



Eco-friendly A biodegradable plate made from rice bran.

27,000 tonnes a day

Citing Central Pollution Control Board statistics, NIIST scientists pointed out that India generates around 27,000 tonnes of plastic waste a day. The country produced around 400 million tonnes of plastic waste in 2018-2019 alone.

"The shocking fact is that only 9% of all the plastics ever produced was recycled and around 60% of the plastics have been disposed of into the natural environment or landfills. With recent ban imposed by various States of India for single-use plastics, there comes a huge demand for alternative to plastics which are biodegradable in nature," the NIIST said.