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### **Extracting natural fibre from leaves**

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*NIIST to set up demo plants in capital city, Ernakulam*

The National Institute for Inter-disciplinary Science and Technology (NIIST), one of the constituent laboratories of Council of Scientific and Industrial Research (CSIR), is preparing to set up demonstration plants for extraction of natural fibre from pineapple leaf and banana leaf. The plants, utilising a clean bioprocess technology developed by NIIST, will be established in association with the Kudumbasree Mission.

While the banana leaf fibre plant will come up at Kulathoor in Thiruvananthapuram, the pineapple leaf fibre plant is slated to be set up at Piravom, Ernakulam. The demonstration units will replace the traditional method of retting with a biological process employing enzymes to free the fibre from matrices. The technology is expected to reduce pollution and achieve better quality of fibre.

In another major initiative, NIIST has tied up with Santhigiri Ashram to set up a demonstration plant at Alappuzha for the extraction of quality coir fibre using environment-friendly technology.

The bioprocess for extraction of coir fibre and natural fibre from banana and pineapple are two of the technologies developed by NIIST that were unveiled by Minister of State for Human Resource Development Shashi Tharoor here on Wednesday under the CSIR-800 programme, an initiative aimed at income augmentation and improvement in the quality of life of 800 million Indians through science and technology intervention.

A compact anaerobic digester-cum biogas plant for source-level treatment of household waste is another technology developed by NIIST that has been transferred to two companies for licensed production.

The technology, according to NIIST, addresses the drawbacks of conventional domestic biogas units.

A fourth technology unveiled by the Minister involves the manufacture of a wood substitute from natural fibre polymer composites. The institute has signed an MoU with the Kerala Furniture Consortium to commercialise the technology.

Named polycoir, the natural fibre polymer composite developed by the CSIR-NIIST utilises coir fibre and other natural fibres such as banana, jute, and sisal.

Addressing scientists at NIIST, Mr. Tharoor lauded the world class research done at the institute in frontier areas of high relevance.

**Keywords:** [NIIST](#), [Kudumbasree Mission](#), [CSIR-800 programme](#), [Thiruvananthapuram biogas units](#), [natural fibre](#), [waste management](#)