

## **Guest Lecture on Safe Biodegradable Packaging Materials from Agro-wastes**

A guest lecture on Safe Biodegradable Packaging Materials from Agro-wastes by Dr. Mohammad Jawaid, Senior Fellow (Professor) at Biocomposite Technology Laboratory, Institute of Tropical Forestry and Forest Products (INTROP), Universiti Putra Malaysia (UPM), Serdang, Selangor, Malaysia was organised on 25<sup>th</sup> July 2022. The lecture was organized by the NAHEP-CAAST Project of BAU, Ranchi. Dr. Mohamed Jawaid emphasized on making packaging material from wheat straw, rice husk, sugarcane bagasse and oil palm waste as an alternative to plastic. He said that there is a pile of used plastic everywhere in the cities, which ultimately contaminates the drains, rivers, sea and proves fatal for the animals.

He said that plastics that take hundreds of years to decompose have a very negative impact on the marine environment, water sources and animals and birds. In India, about 20 cows die every year due to polythene consumption. On the lines of India, a complete ban on single use plastic is being planned in many other countries. He said that many companies in the world are making cups, plates, spoons, lunch boxes, trays, food containers, and packaging materials for fruits, vegetables, meats from agricultural waste which are light, strong, and eco-friendly. Some companies have also made paper bottles from the pulp of agricultural waste which will replace plastic bottles. These materials are chemical and poison free, water proof, oil resistant and odourless. They cost more than plastic but when we look at the cost of managing plastic borne pollution, these products will not seem expensive. There is a need for basic research related to making pulp from agricultural waste and giving them various shapes.

Dr. Jawaid also shared his experience with the ongoing research project at Universiti Putra Malaysia in collaboration with the Newton Fund, England, to make sustainable products from oil palm waste for commercial use. There, many packaging materials are being prepared from oil palm waste and that technology is being disseminated. Malaysia and Indonesia are the largest exporters of palm oil, due to which oil palm waste is being piled up there.

