

Biodegradable Drinking Straws Made From Naturally Dried and Fallen Coconut Leaves: Impact on Rural Circular Economy and Environmental Sustainability

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Abstract : Naturally dried and fallen coconut leaves are found in abundance in India and other coconut growing regions of the world. These fallen coconut leaves are usually burnt by farmers in landfills and open kitchens, leading to CO₂ and particulate emissions. The innovation of biodegradable drinking straws from naturally dried and fallen coconut leaves by this researcher and his team has opened up opportunities to create value out of this agri-waste leading to i. prevention of burning of these discarded leaves ii. income generating opportunities to women in rural areas of coconut growing regions iii. an alternative to single use plastic straws. The team has developed five special purpose machines, which are deployed in the three villages on a pilot basis where 36 women are employed. The women are trained in the use of these machines, and the straws which are in good demand are sold globally. The present paper analyses the prospective impact of this innovation on the incomes of women working at the straw production centres and the consequent impact on their standards of living, The paper also analyses the impact of this innovation in the reduction of CO₂ and particulate emissions and makes a case for support from Govt and Non Govt organizations in coconut growing regions to set up straw production centres to boost rural circular economy and to reduce carbon footprint and eliminate plastic pollution

Keywords : drinking straws, coconut leaves, circular economy, sustainability

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