

Environmental Management of Petha Industry in Agra City

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ABSTRACT

Petha, the “delicacy” from the Taj Mahal city of Agra, traces its history back to almost 4 centuries, when it served as an instant source of energy to thousands of workers involved in the making of the great monument, Taj Mahal. Prepared by boiling and processing Ash Gourd (the vegetable “petha”), this sweet is the livelihood of thousands of workers in Agra. About 1500 cottage units produce 700-800 tonnes of Petha daily, while consuming 225 tonnes of coal or firewood every day. The organic solid waste and the emissions from coal combustion have been implicated in environmental problems in the Agra city and the adjoining stretch of river Yamuna. Although the use of coal was banned by the Supreme Court in 1996, it had not been implemented till very recently. Agra has also been declared as a part of the Taj Trapezium Zone (TTZ). Petha industry in TTZ has recently been ordered to either switch to gas-based technology or move their units, with the new proposed site being Petha Nagri in Kalindi Puram from the existing Noori Darwaza area. A USAID-CIT project has shown potential methanation of the solid waste from petha industry and successfully demonstrated the production of 25-30 m³ of biogas per tonne of waste disposed. Plans were also underfoot to construct a 35 tpd waste-to-energy plant, however were never implemented. This work discusses the potential solutions to this environmental-social-economic-technical dilemma, while giving a brief background of petha manufacturing process, legal guidelines & rulings and environmental threat of process effluents. This article aims to provide sufficient information to all the stakeholders so that informed decisions on sustainable petha manufacturing can be taken.

Keywords: Petha, waste, environment, Agra