Biocoal Production Potential in South-East Asia: An Indian Perspective

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Biocoal is the uniform solid residue produced during torrefaction of biomass at a moderate temperature range of 200-300^{0}C, slow heating rate and residence time up to 60 minutes. The principal advantage with biocoal is that it has a higher calorific value than original biomass which is widely available in south-east Asia. Besides, coal has several challenges in respect of impurity, high ash and sulfur content, environmental issues during mining and so forth. India is growing rapidly towards becoming a developed nation. Hence, the demand for energy in terms of solid, liquid and gaseous fuels is also increasing sharply. Facing an acute shortage in the domestic supply of crude oil, India looks to widen its energy basket. Considering that about 150 million ton of agricultural residue is available in India for energy production, the potential to produce biocoal from this residue is really great. We will discuss the availability of different type of biomass, their energy values, the current status of biocoal production and possible applications.

Keywords: Agro-residue; torrefaction; biocoal; calorific value; reactor conditions

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