

## ENTREPRENEURSHIP DEVELOPMENT THROUGH UTILIZATION OF BIOENERGY SOURCES IN NORTH EAST TEA INDUSTRIES

L.S. Yadav

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**ABSTRACT:** A study was carried out during 1995-2008 in tea industries, located on north bank of Brahmaputra with an objective to determine potential of entrepreneurship development in utilization of bioenergy sources like biomass and cow dung. It was found that an active member of every family, living in colonies of tea industries was roaming in search of firewood for cooking. Which was found causing negative health affect and due to that 32 per cent of women were found suffering from respiratory diseases. Twenty seven per cent of workers of every industry were found out of employment during off season, October – March, when factories were closed. On other side, scope of entrepreneurship development was available, as 111 to 351 metric tonnes biomass per ha of replanted area was available by uprooting old uneconomical tea bushes and shade trees with tractor & winch as also by pruning tea bushes. This huge quantity of biomass was available for making torrefied briquette. Five to 10 kg of dung was also available with each family of workers living in colony. The dung could be utilized as binding agent for making densified fuel. It generated an opportunity to setup torrefied briquette manufacturing unit, which provided employment to 3 workers per ha area under replanting during their idle period. The dung and guatemala pieces could be utilized for vermicomposting, which was a bioenergy source in place of chemical fertilizer. Encouraging workers to rear animals, utilization of dung available from them and making available a clean densified smokeless fuel were found a participatory approach for sustainable growth of tea industries.

**Key Words:** Clean fuel, entrepreneurship development, participatory approach, machinery intervention.