

UPROOTING OLD BUSHES WITH TRACTOR AND WINCH ENHANCED QUANTITY OF BIOMASS FOR GENERATING EMPLOYMENT IN NORTH EAST TEA INDUSTRIES

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ABSTRACT: The study carried out in tea industries located on north bank of Brahmaputra during 1995-2008, revealed scope of uprooting old tea bushes with tractor & winch. The use of these equipment was found increasing availability of biomass to tune of 31.96 per cent to 101.91 per cent as compared to that of manual uprooting. Also, it was found saving time to extent of 50.00 per cent. The torrefied briquette was found saving fuel to extent of 22.22 per cent as compared to briquette. Whereas same saving was 34.55 per cent in case of briquette, when compared with loose fire wood. The briquette manufacturing from available biomass of one ha area and its torrefaction were found generating employment for three workers during off season. The safe and efficient sequence of tractor operations was parking tractor with wedged wooden blocks under tyres, tying bushes tightly, giving drive to winch and uprooting, disengaging drive after uprooting, opening tea bushes and dumping them at a suitable places. The torrefied briquette was found an economical clean fuel for colony, factory, etc. in place of coal. Thus use of tractor & winch and briquette manufacturing were found generating employment for skilled and semi skilled workers, which was essential to provide sustainable growth to tea industries in north east India.

Key Words: Labour displacing, organic tea farming, power intensive, safe sequence, torrefaction, winching.