

Abstract No. 20**Economics of biomass briquette in Karnakaka, India**Abhilash Shahapur¹, N.R. Mamle Desai¹, Md. Abdual Kader¹¹ The University of the South Pacific, Alafua Campus, Samoa

Abstract For commercialization of crop based biomass technology it is essential to know whether the technology is economically viable or not. In view of this, an attempt was made to analyze the economics of the biomass briquettes prepared by utilizing unused agricultural byproducts and other selected biomass produced from different crop residues. Biomass briquetting is one among the process of converting low bulk density biomass into high density and energy concentrated fuel referred as briquette and has scope to use as fuel energy in food preparation by rural households. India continued to roll its economy with agriculture whose energy requirement is increasing day by day with the progress made in agricultural sector. Under the existing situation, day today's demand for fuel energy in food preparation at rural households observed to be very high and women folk struggle hard to gather fuel for food preparation. On the other hand in India plenty of biomass is available due to vast agricultural based crop production systems. The per annum current availability of biomass in India is estimated at 1,249 million tons. With this advantage, to minimize the drudgery of rural women folk and to fulfill rural household demand for fuel energy required for food preparation could only be addressed by the means of production of biomass briquettes which provides cost effective and good fuel energy for rural households for cooking food every day. The economics of biomass briquettes production indicated per month average net return of \$1,200 to the briquette machine owner. The project appraisal with other financial indicators for biomass briquettes production had indicated desired, the Net Present Value (NPV), Internal Rate of Return (IRR), Benefit-Cost Ratio (BC Ratio), and Payback Period (PBP) were observed to be \$6,900, 13.90 per cent, 1.38 and 4.15 years respectively.

Keywords NPV, IRR, BC ratio, PBP
