

---

**ECONOMIC FEASIBILITY OF GROWING GLIRICIDIA UNDER COCONUTS AS  
AN ENERGY SOURCE FOR DENDRO THERMAL POWER PLANTS;  
AN EX-ANTE APPRAISAL**

**M T N Fernando<sup>1</sup>, K B Dassanayake<sup>1</sup> and P G Joseph<sup>2</sup>**

<sup>1</sup>Coconut Research Institute, Lunuwila

<sup>2</sup> Alternative Energy Division, Ministry of Power and Energy, Colombo

Growth of the demand for electricity intimately follows the growth of the economy of Sri Lanka. Since the hydro resources, the major source of electricity are insufficient to meet the growing demand for electricity, alternative power sources have to be employed. Gliricidia proves to be a promising source of biomass energy. Firms generating dendro-thermal power express their willingness to establish dendro-thermal power plants at the Coconut Research Institute of Sri Lanka on build-operate and transfer (BOT) basis, and to purchase Gliricidia dry wood delivered at the power plant at Rs. 1250/MT. This study examines whether the farmers can supply Gliricidia at the above price with a reasonable margin for them. The break-even price of a MT of dry wood delivered at the power plant located 10 km from the coconut estate was computed employing discounted cash flow method. This was Rs.977, implying a margin of some 28% for growers. The analysis further demonstrated that the break-even price was more sensitive to variations in wood yield than the variations in transporting distances. The ex-ante appraisal concludes that the raising of Gliricidia under coconuts as an energy source for dendro-thermal power plants is an economically viable proposition. However, other socio-economic factors influencing the adoption of new technologies may be worth investigating.