

**International Energy Journal, Vol. 2 No. 2, December 2001**[HOME](#) | [ABOUT](#) | [LOG IN](#) | [REGISTER](#) | [SEARCH](#) | [CURRENT](#) | [ARCHIVES](#)[Home](#) > [Vol. 2 No. 2, December 2001](#) > [Jayah](#)**The Potential for Wood Gasifiers for Tea Drying In Sri Lanka***T.H Jayah, R.J Fuller, Lu Aye, D.F. Stewart***Abstract**

One of the reasons for the higher production cost of tea in Sri Lanka compared to other countries is the high specific energy consumption. In Sri Lanka, 38% more energy is used to produce one kilogram of tea compared to India, largely because of the use of inefficient wood-fired air heaters. Gasifiers have been proposed as an alternative method of providing the hot air used for drying. A locally built gasifier has been tested and found to have a conversation efficiency of 80%, which is comparable to that of an imported unit. The heat loss of local gasifier was found to be between 11.5-14% of the input energy. An analysis shows that the life cycle cost of energy produced by the gasifier is US\$ 3.00 per GJ, which is 8% less than the cost of energy from a conventional wood heater. Wood consumption is also reduced by 12%. Some transfer of gasifier technology to the crematoria industry in Sri Lanka has already occurred and this enhances the prospect of the successful introduction of this technology to the tea industry.

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