

FEASIBILITY STUDY ON THE USE OF NON-WOOD WASTES FROM RUBBER PLANTATION FOR ENERGY PRODUCTION

BY

SUTEERA PRASERTSAN
PRSPASRI SINGRAT
GUMPON PRATEEPCHAIKUL
SUTHIRAT SUWANJARAS

PRINCE OF SONGKLA UNIVERSITY, HATYAI.

1. INTRODUCTION

Thailand is one of the major rubber producing countries. Rubber plantation area in the country covers over 10.7 million rai (Sinturahat et al 1986). During fall season, when the rubber trees cannot be tapped for latex, millions of people working in the plantation are unemployed. Not only living with no income, they also have to get rid of the falling leaves since the dry leaves can cause fire and burn to the rubber trees. The leaves are normally collected and burnt out in a safe place. Their value is negative.

In rural part of Thailand the industry and domestic needs for energy are generally met by fuelwood. Since Thailand cannot afford any further deforestation, the shortage of fuelwood can be expected in the near future. Although rubber wood is plentiful (and used exclusively as fuelwood) in Southern Thailand because of ample supply from the replanting programme, the rubber wood is becoming scarce and shortage has been experienced in some locations. This because the rubber wood has found several new uses such as furniture making, construction timber, toys, etc. Therefore, if wastes from rubber plantations

are converted to a manageable form, they can easily substitute the fuelwood. It will be beneficial to the local people since their negative value will immediately become positive. Furthermore, rubber industry is encouragingly introduced in the North-Eastern part of the country, the region that desperately needs fuelwood substitute and local employment. Utilization of the wastes from rubber plantations not only has an impact on the socio-economic development of the rural people but it lessens problems like fire hazard, (temporary) unemployment, deforestation, energy shortage in the industries (e.g., brick making, rubber smoking, lime and cement producing etc.).

Wastes from rubber plantation never has been received attention before. There is a need to carry out study on the utilization of the wastes. This paper reports the feasibility study, in energy availability and economic point of view, of the use of non-wood wastes from rubber plantation for energy production.