

Kanitta Sukchuay 2008: Socio-Economic Assessment of Jatropha Biodiesel Production  
Development and Demonstration Project: A Case Study of Small and Micro Community Enterprise  
Alternative Energy, Rayong Province. Master of Science (Agricultural Economics), Major Field:  
Agricultural Economics, Department of Agricultural and Resource Economics. Thesis Advisor:  
Assistant Professor Piti Kantankul, Ph.D. 152 pages.

The objectives of this research were to study socio-economic condition of farmer's households in the community enterprise and to assess socio-economic of jatropha cultivation for bio-diesel production at farm and community level in Alternative Energy Community Enterprise, Rayong Province. Forty-three samples participated in the project were selected. Comparison of cost and benefit from jatropha cultivation was done by partial budgeting analysis to evaluate economic changing in 2006/07 crop year. The analysis was extended to 2015/16 under the specified scenarios. The estimation of jatropha production to serve the community demand was done. As for social assessment, the opinion on jatropha cultivation and joining as a membership of the project was also described.

It was found that most farmers grow fruit and rubber trees, cultivation area of jatropha was 5.56 rai per household. Jatropha cultivation was divided into 3 types, i.e., monocropping on vacant farm lands, mixed cropping with fruit trees and intercropping with rubber trees. Partial budgeting analysis showed that monocropping on vacant farm lands produced the highest economic benefit. The analysis was extended to 2015/16 crop year under specified scenario. It was found that all scenario on monocropping on vacant farm lands and mixed cropping with fruit trees produced economic benefit. While intercropping with rubber trees produced economic benefit only when specified price was 6 bath per kilogram. Farmers must produce jatropha on average of 963.72 kilograms per household per year for sufficiently serving the community demand. Most of the farmers agreed that jatropha cultivation led to clear job dividing in household. Joining the project increase their social role and participating in community activities.

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Thesis Advisor's signature

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