

Kanokwan Hamsukjaijareun 2009: An Assessment of the Potential for Fuel Energy Alternative Process in Thailand. Master of Science (Sustainable Land Use and Natural Resource Management), Major Field: Sustainable Land Use and Natural Resource Management, Interdisciplinary Graduate Program. Thesis Advisor: Mrs. Orasa Suksawang, Ph.D. 70 pages.

This research aims to investigate the existing situation and to assess the process of utilizing ethanol fuel as an alternative energy in Thailand by considering government policies, spatial aspect, farmers' behaviors, natural disaster and industrial problems. Data applied for studies are maps of suitable land uses for sugar cane and cassava across Thailand from Land Development Department; locations of agricultural product trading centers as well as sugar and ethanol industries; and agricultural productions from farmers by interviewing using questionnaires. Systems Thinking is applied for defining study framework while GIS and statistics are used for spatial analyses. Study area covers the whole 4 regions namely, Northeastern, Northern, Central and Eastern of Thailand. The research revealed that Thailand at present has the potential of land for growing sugar cane and cassava in order to produce ethanol and has possibilities to increase ethanol in the future.

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Thesis Advisor's signature

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