

## ABSTRACT

It has been widely accepted that there exists the impact of nonforestry policies, such as trade liberalization, interest rates, and taxes and subsidies on deforestation and forest degradation. It is also increasing recognition that forestry policies can affect the performance of nonforest sectors through environmental and economic linkages. This research examines the determinations of forest degradation in the wake of trade liberalization based on households survey comprising 719 households living near forests or within forest areas in 28 villages under five Provinces: Chiang Rai, Chiang Mai, Mae Hong Son, Nan and Phayao. The findings enable the policy makers to design the effective environmental management for sustainable development as well as to eradicate rural poverty.

The research contains two parts; Part 1 examines the causes of forest degradation focusing on socio-economic, biophysical and spatial variables in a temporal dynamic and spatial scale household model. The impacts are estimated in the context of survival analysis applying logit model. The findings suggest that average age of household head, education (years of schooling) of household members, average income of household, land ownership, forest ownership, and agricultural and forestry sector production influence significantly forest degradation. Part 2 investigates the impact of trade liberalization in the presence of environmental policy applying a dynamic computational general equilibrium (DCGE) model. This research seeks to elucidate linkages between trade, environment and agriculture and forestry sector policies by highlighting policy instruments for intervention measures for sustainable economic development. The effects of environmental related trade and sector policies on consumption, production, investment, employment, exports, imports, economic stability and country welfare are presented conducting four policy simulations. The study highlighted the different effects of each policy alternative.

The first sets of policy instruments in this study reflects factor affecting forest degradation and provide policy implications. The second set of economic policy instruments includes coordination of trade, environment and macroeconomic policies to ensure the desired outcomes.