

(別紙様式第3号) (Format No. 3)

学 位 論 文 要 旨
SUMMARY OF DOCTORAL THESIS

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題目 Title:

An Economic and Management Research on Agricultural Land Use Change in Honduras:
Focused on the Expansion of Non-traditional Crops Resulting from Neoliberal Reforms

Summary

Over the past two decades, Honduras has undergone neoliberal structural adjustment of the economy focused on liberalization of the financial market and trade policies, and implemented policies that promote domestic and foreign investment, agro-industrial development, crop diversification and production of non-traditional crops for export. As a result, the Honduras' agriculture sector that once depended on the production of traditional agro-export crops (e.g. banana and coffee) and staple food crops (e.g. maize and beans) has to some extent diversified its production and export basket through expansion of the production of non-traditional crops (e.g. fruits and vegetables).

The production of non-traditional crops is on the one hand seen as an alternative to poverty reduction and economic development and has made small-scale farmers able to approach international markets and thereby take part in the globalized economy. However, on the other hand it is also thought to have the potential to cause detrimental impacts on the agricultural production and economic performance of farmers and regions dedicated to that sector as a result of unplanned and inappropriate decision-making on land use.

Research on the expansion of the production of non-traditional crops in Latin American countries has already been conducted. Those that addressed the impact on the agriculture sector suggest that the production of non-traditional crops has led to a greater gap between the mercantilist large-scale agriculture and the small-scale agriculture but provided small-scale farmers with the opportunity to improve their economic condition. In addition, in recent years it has been indicated that the production of non-traditional crops is not sustainable. However, no research has addressed the conditions needed for the realization of sustainable agricultural land use and production.

Hence, in order to provide insights toward the realization of sustainable agricultural land use in regions devoted to the production of non-traditional crops, this research aimed at evaluating from an economic and management stand point the agricultural land use change resulting from expansion in production of non-traditional crops such as Asian vegetables in Comayagua region, which is a region devoted to production and export of non-traditional crops promoted by neoliberal reforms.

The research firstly presents an overview of Honduras with emphasis on the macroeconomic and agricultural policies implemented during the last two decades and examines the production and trade of non-traditional crops along with the potentialities of Honduras in the trade of fresh vegetables with its major trading partner, the United States, based on secondary data.

Next, it undertakes an approach that includes the region as a whole and farms to analyze agricultural land use change in Comayagua region using economic and management indicators. At the regional level, the land use and land use changes occurred during the period 1987-2001 as well as driving factors and impacts were examined through the use of remote sensing and field survey data. At the farm level, the research focused on the Asian vegetables agro-industry and small-scale farmers to study the economic and managerial significance of the agro-industry and its influence on

land use along with the determinants of land use allocation and household income through empirical analyses carried out by means of analytical tools that included T Test, Correlation Analysis, Analysis of Variance, Factor Analysis, Canonical Correlation Analysis, Multiple Regression Analysis and Cluster Analysis based on primary data collected through farm-household surveys.

Research results reveal that the structure (expressed in terms of traditional and non-traditional) of production and export of agricultural products in Honduras has been changing since mid 1980's as a result of outward oriented neoliberal policies with increasing absolute figures and proportions in area harvested, production and especially in export volume and value of non-traditional agricultural products. Moreover, the analysis of trade of fresh vegetables with the United States indicated that Honduras plays a key role and shows strong competitiveness in the United States fresh vegetables market. Thus, it is very likely that the fresh vegetables sector, which is an outstanding component of the non-traditional agricultural sector, will continue to expand over the years.

Changes from inward to outward oriented policies implemented in Comayagua region led to extensive expansion of agricultural land through the conversion of forest lands and wastelands and changeover from traditional enterprises such as maize, beans and livestock farming to high value non-traditional crops centered on vegetables for export such as the Asian vegetables agro-industry. The Asian vegetables agro-industry is a sector that has contributed to economic development through a multiplier effect reflected in creation of new employment opportunities, generation of capital for further investment and increase of farmers' income.

However, parallelly, concerns such as migration from less developed areas, subsequent increasing shifting agriculture and forest clearing along with land abandonment also took place. Moreover, the production of Asian vegetables threatens food security and reduces the possibilities of realizing sustainable agricultural land use since it has induced reduction in the land area allocated for production of staple food and locally marketable crops and land has come to be intensively used for the production of input-intensive crops without any improvement in the adoption of soil conservation practices. Thus, there is evident need to improve the land use allocation of Asian vegetables farmers so as to ensure balanced production of both staple food and commodity crops as well as the rational and sustainable use of land while enhancing farm earnings.

Aiming at finding insights toward that purpose, the determinant factors of land use allocation and household income were examined and small-scale Asian vegetables farmers were classified to identify best practice model farms. Within the examined factors, access to credit appeared to be a determinant factor that induces land allocation for production of Asian vegetables and influences considerably household income. Meanwhile, access to agricultural extension services appeared to be a factor inducing diversified farming. In addition, model farms selected according to their economic, management and land use allocation characteristics were proposed to contribute to the realization of sustainable agricultural land use.

Finally, the conditions needed for the realization of sustainable agricultural land use were examined and strategies that may apply not only to Comayagua region but also to other regions of Honduras were drawn up including a model of organization for promotion of regional agribusiness and sustainable agriculture through supervised agricultural credit combined with agricultural extension.

The distinctive feature of this research lies in that it examined the impacts of the expansion of non-traditional crops on agricultural land use through empirical analyses and from an economic and management stand point. It evidenced the direct and indirect impacts at the regional level by means of the analysis of remotely sensed and field survey data which so far has not widely been done in the field of agricultural economics and management. In addition, it analyzed the economic and management characteristics of farmers and identified the necessary conditions for the realization of sustainable agricultural land use.