Patchya Songsiengchai 2007: The Growth and Total Factor Productivity of Thai Agricultural Sector. Master of Science (Agricultural Economics), Major Field: Agricultural Economics, Department of Agricultural and Resource Economics. Thesis Advisor: Assistant Professor Prapinwadee Sirisupluxana, Ph.D. 134 pages.

The main objectives of this study were to study the sources of real output growth in the agricultural sector of the fifth - ninth Development Plan, and the determinant factors of total factor productivity growth in the agricultural sector. The first part used econometric model with translog production function to evaluate the determinant factors for the real output growth under the guideline of the Growth Accounting Approach. The second part used multiple linear regression analysis by applying ordinary least square method to estimate coefficients of factors affecting the total factor productivity growth in the agricultural sector.

The result of the first study showed that the sources of real output growth in the agricultural sector during the fifth - ninth Developing Plan was mainly the result of the expansion in capital factor, and this expansion needed to be cooperated with the labor factor to increase real output in the agricultural sector. Hence, the government and the related units should pay more attention to the labor-skill development along with the enhancement of supporting capital factor in the agricultural sector by organizing the trainings to increase talents and skills of labor in utilizing agricultural equipments efficiently in order to increase real output in the agricultural sector.

The second study established that total factor productivity growth in the agricultural sector had resulted from various factors, like the rate of openness in foreign trade, the capital import, and the research and development expenditures in the agricultural sector. Therefore, the government should realize the importance of free-trade policy in agricultural products, support foreign investment, and increase more research and development expenditures for the growth of sustainability and stability in the agricultural sector.

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