

Weerasak Kongrithi 2009: The Thai Rice Economy: Could Thailand Maintain Its Future Exportable Surplus? Doctor of Philosophy (Agricultural Economics),  
Major Field: Agricultural Economics, Department of Agricultural and Resource Economics.  
Thesis Advisor: Associate Professor Somporn Isvilanonda, M.A. 155 pages.

During the past few decades, Thailand's economy continuously expanded. Among other impacts, this economic growth led to intense competition in the use of production resources, especially land and labor, among the various economic sectors.. Rice production was inevitably affected by such developments although farmers have adapted their farming practices to more cost-efficient technology, which included the use of farm machinery. On the other hand, the increase in the price of petrol during the past five years had stimulated the development of bio-fuel from energy crops, the farming of which created more competition for land use between food crops and energy crops. The growth in energy crop farming and their higher price subsequently affected the allocation of production resources. This study investigated the impact of changes in price factors and non-price factors on the area and production of rice. It also estimated the tendency of rice production supply and exportable surplus for the 15-year period between 2010 to 2025.

The findings reveal that the most influential factor supporting the increase in rice production is investment in research followed, in diminishing degree, by rice price and area under irrigation. The negative factor includes the erratic weather pattern represented by rainfall variance, price of energy crops and price of chemical fertilizer. The most important factor for domestic demand is population growth. On the other hand, increases in household income and rice price induced a reduction in demand. An estimation of the trend in rice exportable surplus for the next 15 years shows that the country's exportable surplus would decrease under the worse scenario (B), but would increase steadily under the base scenario (A) and the most favorable scenario (C).

These findings suggest that for the government to maintain the competitiveness of Thai rice in the export market, a non-price policy would increase the surplus and reduce the production cost. The important non-price policies include investment in research and development of higher yielding and premium quality rice varieties. The new varieties and the new technologies should be particularly suited to rainfed environments. Such policy would generate a volume of exportable surplus that is enough to maintain the country's leading status in the international rice market.

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Student's signature                      Thesis Advisor's signature