

Analysis of rice production instability in Southeast Asian countries

ABSTRACT

This study measures the extent of rice production instability and the sources of instability in selected rice producing countries of Southeast Asia. A time series data on rice harvested area, yield and production of five Southeast Asian countries was used to analyze the components of production changes (area, yield and interaction effects) from 1980 to 2010. The production data is categorized into two periods: (i) 1980/81 to 1994/95 and (ii) 1995/96 to 2009/10. The results show a significant increase in rice production in all the countries during the reference period. However, the effect of area and yield to increase production differs from one country to another. It is noted that instability in area, yield and production in countries (except for Malaysia) are positively related. Furthermore, the decomposition analysis indicated that changes in mean yield mainly contribute to mean production in Malaysia, Philippines, Thailand and Vietnam while change in mean area contributed larger in Myanmar. However, changes in area-yield covariance between periods made a negligible contribution to the change in rice production.

Keyword: Instability; Rice; Production; Yield; Southeast Asia