

Productivity Growth in ASEAN Agricultural Sector: 1988-1997

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Abstract

This paper analyzes agricultural productivity growth in four ASEAN countries over the period 1988-1997. A Malmquist-Data-Envelopment Analysis (DEA) method as introduced by Fare et al. (1994) is used to calculate indices of productivity change and its components, technological change, technical efficiency change and scale efficiency change. Results suggest that on average, agricultural productivity growth had been increasing at a positive rate of 5.4% over the year 1988-1996. However, agricultural productivity growth declined if the year 1997 were included suggesting that agricultural productivity were also affected during the Asian financial crisis. The growth in technical change and the decline in efficiency change over the 1988-1996 period suggest that the growth in Total Factor Productivity in ASEAN agriculture arose from innovation in technology rather than the improvement in technical efficiency.