



Thesis Abstract

Profitability and Comparative Advantage of Sugarcane Farming to Supply Sugar Industry in Java, Indonesia

By Dyah Ismoyowati, PhD in Agricultural Economics, Universitas Gadjah Mada

Policies changes in 1998 influenced the Java sugar industry because there was no more obligation to plant sugarcane. The study aimed to determine the sugarcane farming system's profitability, comparative advantage of the system, incentive or protection available to the farmers, and sensitivity analysis on relevant sugar dynamics. The study sites were five sugar industry samples spread over Java. The primary data for profitability analysis covered 300 units originated from 185 farmers and 115 industry plantation units spread over a proportional area. In addition to the sugar CIF (Cost, Insurance, and Freight) of US\$220 per ton in 2002, the study applied a non-distorted efficiency measure approached by the average production cost of competitive and efficient countries of US\$280 per ton to identify comparative advantage in the long run.

The findings showed three alternatives of sugarcane procurement: 1) partnership with farmers based on minimum return on land, 2) partnership with farmers as the industry provides assistance, and 3) purchasing sugar from free farmers. Using data in 2002, the study showed that the whole Java, on the average, failed to gain profit (PCR 1.10) nor did it have comparative advantage (DRC 1.13). But in the long run, findings revealed that Java still has comparative advantage (DRC 0.89) whenever world sugar price is free from distortion. Java registered profit in certain farming schemes, namely: non-factory-owned farming, irrigated land, and ratooning. Some regions were profitable in certain farming schemes, namely: factory-owned farming, non-irrigated land, cane planting, and ratooning.