World Bank (1987b) *Indonesia: Agricultural Incentive Policies—Issues and Options*, Vols. I and II, Projects Department, East Asia and Pacific Region, Washington, D.C., USA.

DISCUSSION OPENING—*Don Kanel* (University of Wisconsin)

The paper distinguishes three distinct periods in Indonesia's situation. In the first, before 1976, slow economic growth and scarcity of foreign exchange limited agricultural imports. In the second, high petroleum prices facilitated imports, but also in this period improvements in rice technology, prices above world levels, and input subsidies achieved self-sufficiency in rice and decreased the total cost of food imports. The 1980s are different. Lower petroleum prices and lower prospects for further productivity increases in agriculture mean that nontraditional exports will need to grow and that liberalization of trade policies may be the key to economic growth and the growth of such nontraditional exports.

To analyze the impacts of trade liberalization, the authors present the results of a simulation study. In this study, prices are set at levels that can be expected from trade liberalization, and an econometrically estimated model is used to calculate the consequences of the prices for different rates of growth of GDP, agricultural employment and income, and the value of food imports.

The results are given in only five paragraphs of text. This is too condensed to be clear. Possibly a table could have been used to make the results clearer.

What does the analysis indicate about the growth of nontraditional exports? Does the model indicate growth of exports from any of the seven food crop commodities in the model? Even more important, is liberalization of agricultural trade an important factor in lowering Indonesian costs and improving the competitiveness of the Indonesian exports? The authors conclude that, compared to liberalization of agricultural trade, a better policy would be protection of the rice market and only a gradual transformation of the rest of the agricultural sector. But this conclusion would be stronger if the policy proposed by the authors were to have minimal impacts on Indonesian costs.

The model measures impacts of liberalization on both agricultural income and employment. How is the impact on employment measured? Is it an aggregate estimate or does it distinguish family labour of cultivators from that of agricultural workers?

GENERAL DISCUSSION—*Philippe Burny, Rapporteur* (Faculté des Sciences Agronomiques de l'État, Belgium)

A question was raised whether Indonesia is considered a small or large country in the model. When a country is considered large, it has a nonnegligible influence on world prices. In reply, Dillon said that Indonesia was not considered a large country in the model.

One of the most important points discussed was the effect of trade liberalization on agricultural employment and rural wages. Would the wages rates decrease as well as the output prices? Would people leave the agricultural sector? What about the disparity between rural and urban areas? What would be the impact on nonagricultural investments on exchange rates?

In reply, Hedley said that, in his model, two hypotheses were related to this point: rural wages remain stable or decrease with prices. The impact on employment would be negative though, in Indonesia, if the labour force continues to increase in absolute terms but decreases in relative terms. And the consequence of trade liberalization would be the appearance of different wages and prices in different parts of the country (i.e., regional adjustments would be a problem). He agreed that exchange rates would be changed. He noted that income increases and then the elasticity decreases; other products would reajust.

Another speaker wondered if the problem treated in this paper could be dealt with better. Is it really appropriate to assume trade liberalization and then try to identify its consequences for the Indonesian economy? In fact, the Indonesian government has always proceeded differently: it fixes the desired price. So, would evaluating the consequences after the government fixes a domestic price have been preferable?

In reply, Hedley said that, indeed, that was historically so. But, since the mid-1980s, Indonesia has experienced less economic growth and problems have arisen concerning external debts. So, the government changed its policy and the industrial sector was liberalized to a certain extent. So far the agricultural sector has not been liberalized, but trade liberalization must be considered in the future.

Participants in the discussion included R.R. Barichello, A. Siamwalla, and A. Valdés.