

Bringing Economics into the Integrated Pest Management in Indonesia



The use of pesticides in agriculture in Indonesia during the 1970s and 1980s created many serious environmental problems. In response, the Indonesian government has actively pursued a strategy of integrated pest management (IPM) since 1989. This program had helped farmers to reduce their use of pesticides while increasing yields and also dramatically reduced the incidence of pesticide-related illnesses and environmental pollution. Despite this success, there has not been much analysis on the impact of the IPM program on Indonesia's overall economic performance. This has made it difficult for policy makers to decide how much to invest in the program in the face of competing demands for funds. Furthermore, the World Bank loan that financed the IPM program to a significant extent since the mid 1990s was due to be renewed in 1999.

EEPSEA supported a much needed research on the economics of IPM

In 1997, EEPSEA funded a research proposal by Dr. Budy Resosudarmo to estimate the economy-wide benefits of the IPM program. This was a great opportunity to contribute to the very relevant research question at that time. A computable general equilibrium model that links the benefits from reduced health problems due to reduced pesticide use to the economy was employed in the research. It was able to reveal the benefits in terms of national gross domestic product and household incomes for various socio-economic groups.

Among the most important policy recommendation of the research was that it would benefit Indonesia to self-finance its IPM program, in contrast to relying only on the World Bank loan. In the end of 1998, a conference was held to disseminate the research finding which was attended by various relevant and important policy makers. This brought the research findings to the attention of Indonesian government officials who realised that it addressed previously neglected issues. After this conference, Dr. Resosudarmo was invited to various seminars on the IPM program in Indonesia between early 1999 and mid 2000. The National IPM program realised the importance of having an economist on their team.

.... *“In the early 1999, Indonesian government and the World Bank set up a team to evaluate the benefits of the Indonesian IPM program. Dr. Budy Resosudarmo was invited to join the team. The crucial issue was whether the IPM program was beneficial to farmers and society. The team recommended the continuity of the IPM program.”*

Dr. Budy Resosudarmo's Career Highlight and EEPSEA Impact

Dr. Budy Resosudarmo obtained his Ph.D in Agricultural Economics from Cornell University, US. He received a research grant from EEPSEA in 1997 after his return to Indonesia working as a lecturer and researcher in University of Indonesia. Research funding from EEPSEA enabled Dr. Resosudarmo to carry out significant research activities such as writing scientific papers, developing research networks and conducting seminars. To a great extent this also contributed to his effort in establishing the Indonesian Regional Science Association (IRSA), the first associations in Indonesia to conduct a call for paper conference annually. Since 2000, the conference is held annually where a significant number of sessions on environmental topics is also presented. The output of this conference each year is a book on Indonesia's regional development and environment and it stimulates young scholars and policy makers to take an interest in these issues. In 2001, Dr. Resosudarmo was offered a position as a faculty member at the Australian National University. He is now holding a position as Associate Professor. Among the most important career highlight of Dr. Budy Resosudarmo was his contribution to produce new generation of Indonesian young environmental economists. Three of his students at the ANU received EEPSEA grants to conduct a Ph.D study under his supervision. One of them now serves as a Senior Economist at EEPSEA.