A STUDY TO DETERMINE FEASIBLE GOVERNMENT DEVELOPMENT STRATEGIES FOR FARMS IN NIMBORAN IRIAN JAYA

A Dissertation Presented in Partial Fulfillment
of the requirements for the Degree of
Master of Economics

by

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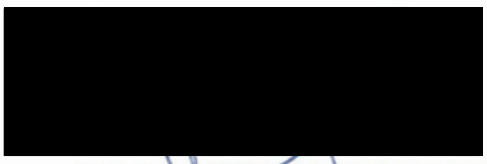
AUTHOR'S CERTIFICATE

I certify that this is an original study of the author and is not being currently submitted for any other degree. Any help received in preparing this dissertation and quotations from other sources used in this study have been acknowledged in this dissertation.



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ABSTRACT

The study was undertaken to establish what factors constrain small-farmers in Nimboran, Irian Jaya from increasing their net cash incomes (NCI) and to determine how these constraints can best be relaxed. The constraints are viewed within the wider context of transforming local subsistence agriculture towards a commercial agriculture.

A decision theoretic approach, combined with subjective equilibrium theory and subsistence affluence theory is used. The selected basic model is stochastic discrete programming, wherein a lexicographic decision rule is specified which explains that resources will be allocated to cash activities only after subsistence food requirements have been met. A field survey was conducted to interview 30 of the 357 farm households estimated to be found in the region, to collect farm data, elicit utility functions and subjective probabilities of the states of nature.

The median farm figures are used to represent the region. Two farmer groups can be distinguished based on the shape of their utility functions. First, those with very steep parts at the beginning of the function range and ending up with an almost horizontal function; secondly, a group with a less steep graph throughout the whole range of the function. Based on their socio-economic condition, the first group was selected to represent Nimboran farm households. Selected utility function and subjective probabilities were incorporated in the model.

The result of the analysis showed that the availability of female labour was the most limiting factor. The level of crop activities between the two utility groups appeared to be the same. Only the expected NCI varied. The expected NCI of the better educated farmers group appeared to be lower and closer to the value of expected consumption than that of the majority of the farmers group. The possible interpretation of these facts is that the pattern of resource allocation or the level of crop activities is the best - given the existing resources, technology and institutional conditions - regardless of whether the aspirations have increased or not. The best available farm development strategy is expanding cash crops such as coconut and cocoa, where reallocation of resources may

still be possible to generate higher expected NCI. Given the Nimboran farmers subjective assessment, the introduction of rice could be difficult since it appeared to have increased resources - land and labour - used, but added extremely little to the expected NCI.

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Mr. Andrew Day drew the graphs and pictures. Mrs. Denise Sturge typed the first two chapters and Mrs. Shirley Sheedy typed the rest of the final draft of this dissertation. I would like to thank them for their contributions.

Lastly, I want to certify that this is an original study of the author, which is conducted as part of his M.Ec. study program at U.N.E. It had never been used for any other purposes. Quotations from other sources used in this study had been acknowledged. Despite all the contributions, the author himself is responsible should there be omissions and misinterpretations as well as language flaws in this dissertation.

Y.P.K.

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