FACTORS INFLUENCING UTILIZATION OF HYBRID RICE TECHNOLOGY IN TABUK, KALINGA

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A thesis submitted to the Faculty of the Institute of Graduate Studies, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, In partial fulfillment of the requirements for the Degree of

MASTER OF SCIENCE
(Rural Development)

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This thesis entitled **FACTORS INFLUENCING UTILIZATION OF HYBRID RICE TECHNOLOGY IN TABUK, KALINGA,** prepared and submitted by **ANALITA MIRANDA-VERGARA** in partial fulfillment of the requirements for the degree of **MASTER OF SCIENCE (Rural Development), is hereby accepted.**

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BIOGRAPHICAL SKETCH

Analita Miranda-Vergara was born on October 5, 1964. She is the eleventh child of the late Natividad Tiongson and Victor Miranda. She finished her elementary education at La Torre Elementary School in 1978 and her secondary education at Talavera National High School, four years later. Her Bachelor's degree in Agricultural Extension Education was obtained from Central Luzon State University, Science City of Munoz, Nueva Ecija in 1987.

In May of the same year, she worked as data analyst of the College Assurance Plan in Makati, Metro Manila; after which, in February 1989 to 1995, she worked as development worker in the Philippine Rural Reconstruction Movement (PRRM)-Nueva Ecija Branch where she became organizer, researcher, and trainor of partners in development work. She also led the 1990 Pinatubo Task Force (Tarlac-based) and the 1991 Earthquake Quick Response Team in Carranglan, Nueva Ecija. In 1996, she was hired as Agriculture Technologist of the Department of Agriculture under the local government unit of Talavera Municipality in Nueva Ecija where she is still currently employed.

The author was awarded a scholarship grant by the Scholarship Program for the Revitalization of Extension and Agricultural Development (SPREAD) of the Agricultural Training Institute in October 1999 in order to pursue a Master of Science in Rural Development degree program in Central Luzon State University. In addition, she was also awarded a thesis support grant by the Philippine Rice Research Institute in Maligaya, Science City of Muñoz.

She has two sons, Victor Gerard and John Carlos, the former, being a grade six schooler and the latter, a first grader.

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ANALITA MIRANDA-VERGARA

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

LIST OF FIGURES

ABSTRACT

VERGARA, ANALITA MIRANDA. Institute of Graduate Studies, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, April 2004. FACTORS INFLUENCING UTILIZATION OF HYBRID RICE TECHNOLOGY IN TABUK, KALINGA.

Adviser: Dr. ROMEO L. SAPLACO

The study was conducted to determine the factors related to and influencing the extent of utilization of hybrid rice technology among 106 farmer-users in four (4) barangays of Tabuk, Kalinga which is considered the hybrid rice capital of the Philippines.

The systems research model was adopted to find out which inputs and process variables will synergistically transform them into output. The socio-economic characteristics of respondents and the production factors constituted the hybrid rice program inputs which dynamically interacted to influence technology utilization through a process known as diffusion to achieve benefits derived from use of new farming practices.

Data were collected through survey method with interview schedule as research instrument. Analysis was done using descriptive and inferential statistics such as Pearson Product Moment Correlation Coefficient. Stepwise regression analysis determined the significant factors influencing utilization of hybrid rice technology. In addition, t-test

was used to determine significant differences in the change of farm productivity and farmer income from inbred rice compared to hybrid rice technology output.

Taking into consideration the highlights of the results of this study, the following conclusions were inferred: 1) The respondents tilled small farms which were devoted solely for hybrid rice production and therefore, have limited resources although with relatively higher income and are farm-owners who can make their own farm management decisions. The implied appropriate technology should be labor-intensive which may require support services such as credit and market assistance and assurance of the availability of suitable hybrid variety of rice seeds. 2) The hybrid rice technology is widely and fully utilized by the Kalinga farmers. It may be inferred that massive technology promotion in this province has indeed, been usefully done through organized production and management. This is further indicated by the respondents' membership in farming-related organizations; 3) Hybrid rice technology users obtained relatively higher farm productivity and farmer's income and the creation of employment brought about by the required technology components of the hybrid rice package of technology. These findings will hopefully contribute to the attainment of food security and poverty alleviation goals set by the Department of Agriculture-Philrice.

Based on the foregoing conclusions of the study, the following recommendations are offered: 1) The existing arrangement for hybrid technology promotion done through organized production and management and the membership in farming-related organizations of the hybrid rice technology users should be maintained and institutionalized. In fact, this arrangement should be made more functional by all

stakeholders of this farming enterprise in order to promote rice self-sufficiency; 2) The synergy of all the variables inputted into the hybrid rice technology utilization program can be enhanced by the synergism of the socio-economic characteristics of membership and production factors required and done through more effective diffusion processes specifically organized production and management. This could serve as insight for policy-makers and decision-makers in the agricultural sector; 3) The indicators of benefits expectation such as comparatively higher farm productivity and significantly different farmer income of hybrid rice producer compared to the inbred rice variety should be continually pursued, if only to achieve food security and poverty alleviation; and, 4) to improve effectiveness and efficiency of technology promotion and extension, those found wanting such as limited financial support, market assistance, low market price and poor farm-to-market road, poor germination of seeds and high cost of farm input like seed, fertilizer and pesticides should be given primordial attention by authorities concerned.

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