

TRAINING NEEDS OF RICE FARMERS UNDER NATIONAL AND  
COMMUNAL IRRIGATION SYSTEMS IN  
NUEVA ECIJA, PHILIPPINES

MD. SHAMSUL ALAM

Submitted to the Faculty of the Institute of Graduate Studies,  
Central Luzon State University, Muñoz, Nueva Ecija,  
Philippines, in partial fulfillment of the  
requirements for the degree of

MASTER OF SCIENCE  
(Rural Development)

MARCH 1988

## TABLE OF CONTENTS

	PAGE
LIST OF TABLES	xi
LIST OF APPENDICES	xiii
LIST OF FIGURES	xiv
ABSTRACT	xv
INTRODUCTION	1
Statement of the Problem	2
Objectives of the Study	3
Hypotheses of the Study	4
Significance of the Study	5
Scope and Limitations of the Study	5
REVIEW OF LITERATURE	7
The Concept of Training Programs	7
Training Needs of Farmers	9
Factors Influencing Farmer's Perception of Training Needs	9
METHODOLOGY	13
Conceptual Framework	13
Operational Definition of Terms	15
Time and Place of the Study	18
Sampling Procedure	20
Instrumentation	23

	PAGE
Data Gathering	23
Method of Analysis	23
RESULTS AND DISCUSSION	25
Personal Factors	25
Socio-economic Factors	31
Communication Factors	33
Training Needs of Rice Farmer (Rice Production)	38
Training Needs of Rice Farmer (Related Areas)	39
Perceived Priority Training Needs in Rice Production of Farmers in Both Communal and National Irrigation Systems	41
Perceived Priority Training Needs in Related Areas of Farmers in Both Communal and National Irrigation Systems	44
Rice Farmer's Perceived Training Needs in Two Irrigation Systems	47
Relationship between the Rice Farmers Perceived Training Needs and Selected Factors	49
Relationship of Tenurial Status of Rice Farmers and their Perceived Training Needs in Rice Production and Related Areas	53
Relationship of Selected Independent Variables and Rice Farmers Perception of Training Needs in Rice Production and Related Areas	54
Problems and Solutions of the Farmers Regarding Training in Rice Production	63

	PAGE
SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	67
Summary	67
Conclusions	70
Implications and Recommendations	71
Suggestions for Further Study	73
LITERATURE CITED	75
APPENDICES	78

## LIST OF TABLES

TABLE		PAGE
1	Distribution of sample unit and sample size in both communal and national irrigation systems by municipality and barangay	20
2	Distribution of respondents based on their personal factors	26
3	Distribution of respondents based on their socio-economic factors	32
4	Distribution of respondents based on their communication factors	34
5	Distribution of respondents based on their sources of information and frequency of use	36
6	Distribution of respondents based on their training needs	40
7	Training needs of rice farmers (rice production)	42
8	Training needs of rice farmers (related areas)	45
9	Correlation coefficients relating farmers perception of training needs to some variables	50
10	Chi-square value on tenurial status and perceived training needs in rice production and related areas	54
11	Results of multiple regression analysis predicting perception of training needs in rice production with some selected variables in communal irrigation system	55
12	Results of multiple regression analysis predicting perception of training needs in related areas with some selected variables in communal irrigation system	57

## LIST OF TABLES

TABLE		PAGE
1	Distribution of sample unit and sample size in both communal and national irrigation systems by municipality and barangay	20
2	Distribution of respondents based on their personal factors	26
3	Distribution of respondents based on their socio-economic factors	32
4	Distribution of respondents based on their communication factors	34
5	Distribution of respondents based on their sources of information and frequency of use	36
6	Distribution of respondents based on their training needs	40
7	Training needs of rice farmers (rice production)	42
8	Training needs of rice farmers (related areas)	45
9	Correlation coefficients relating farmers perception of training needs to some variables	50
10	Chi-square value on tenurial status and perceived training needs in rice production and related areas	54
11	Results of multiple regression analysis predicting perception of training needs in rice production with some selected variables in communal irrigation system	55
12	Results of multiple regression analysis predicting perception of training needs in related areas with some selected variables in communal irrigation system	57

## LIST OF APPENDICES

APPENDIX		PAGE
1	Analysis of variance (training needs) in rice production both in CIS and NIS	79
2	Analysis of variance (training needs) in related areas both in CIS and NIS	79
3	Interview schedule	80

## LIST OF FIGURES

FIGURE		PAGE
1	Conceptual paradigm showing the relationship of the independent and dependent variables	14
2	Map of Nueva Ecija showing the study areas	19
3	Map of Muñoz showing the sample barangays	21
4	Map of Guimba showing the sample barangays	22

## ABSTRACT

ALAM MD., SHAMSUL, Institute of Graduate Studies, Central Luzon State University, Muñoz, Nueva Ecija, Philippines, March, 1988.

TRAINING NEEDS OF RICE FARMERS UNDER NATIONAL AND COMMUNAL IRRIGATION SYSTEMS IN NUEVA ECIJA, PHILIPPINES.

Adviser: Dr. Anselmo D. Lupdag

This study sought to determine the perception of training needs in rice production and other related areas of the rice farmers in the province of Nueva Ecija. Specifically the objectives were to: 1) determine the personal, socio-economic and communication factors of the rice farmers in the national and communal irrigation systems in Nueva Ecija; 2) find out the areas of priority for training needs in rice production among rice farmers in the study area; 3) determine if relationships exist between some selected factors and farmers' perception of training needs in rice production in the two irrigation systems; 4) ascertain if there are differences in the perceived training needs of farmers in the two irrigation systems in Nueva Ecija; 5) find out the problems of the farmers regarding training in rice production; 6) find out the suggested solutions of the farmers to their perceived problems regarding training in rice production.

The research was conducted in the communal (CIS) and national irrigation systems (NIS) of the municipalities of Muñoz and Guimba,

Nueva Ecija, Philippines. A total of 204 rice farmers equally representing the two irrigation systems served as respondents. The data were gathered through personal interview.

The result revealed that the average age of the respondents from the CIS was 47.42 years and 47.87 years from those in the NIS. The mean number of years of schooling of those in the CIS was 6.61 years and 6.20 years for those in the NIS. They had average farm size of 1.96 ha (CIS) and 1.97 ha (NIS) and an annual average family income of P41,554.94 (CIS) and P47,661.33 (NIS).

About 34 percent of those from the CIS attended trainings and 35 per cent of those from the NIS in rice production, and 83 percent of the respondents in both irrigation systems were members of farmer's organizations. About 50 percent of the CIS respondents and 78 percent of the NIS farmers were visited by the technicians. Those who visited model farms were 32.36 percent under CIS farmers and 40.20 percent NIS respondents.

The CIS respondents reported "weedicide application" in rice production is the training they needed most. Among the related areas for training besides rice production was "marketing of farm produce" which they also felt as the most urgently needed. On the other hand, the respondents of NIS said they needed most the training in "control of diseases" in rice. Related areas which most of them indicated they needed training was in "swine production".

Of the 12 selected factors, those found significantly related to the respondents' perceptions were training in related areas, leadership in organization, and mass media used. Educational attainment was also found significantly related to the respondents' perception on training needs.

The results also showed that tenurial status had significant relationship with farmers perception of training needs in rice production both in CIS and NIS. However, only the perceptions of the NIS respondents were significantly associated in related areas.

Of the 10 selected predictor variables, number of organization appeared the most significant predictor variable for perception of training needs in rice production among those in the CIS while total farm size was true among those in NIS. The frequency of visits was the most significant predictor variable in related areas for those in the CIS and number of organizations in the NIS.

The respondents' perceptions of training needs differed significantly between CIS and NIS.

## LITERATURE CITED

- ALAMPI, P. 1970. Education of farmers in the seventies. Agricultural Education Magazine. 42(10) (April). p. 246.
- ANTONIO, W.D. 1973. Socio-economic factors associated with participation in adult farmer training program. Unpublished M.S. Thesis, UPLB, College, Laguna (April). pp. 68-69.
- ARAGONES, S.G. 1977. Barrio-based farmers' organizations and agricultural development in selected social laboratory pilot centers in the Philippines. Unpublished Ph.D. dissertation. UPLB, College, Laguna (March). p. 109.
- \_\_\_\_\_. 1978. Observations, opinions and preliminary statements about agricultural education in the Philippines. Agricultural Education 241. Farming Programs in the Philippines, UPLB, College, Laguna (1st semester, mimeographed).
- BLANG, M. 1972. Education as private and social investment: An introduction to the economics of education. In: Abdul Halim, The Economic Contribution of Schooling and Extension to Rice Production in the Province of Laguna, Republic of the Philippines. Unpublished Ph.D. dissertation, UPLB, College, Laguna (January, 1976). p. 17.
- CALE, R.N. 1979. The training needs of rice farmers in Biliran Sub-Province. Unpublished M.S. Thesis. UPLB, College, Laguna.
- CHUA, E.C. 1973. High-yielding rice varieties at the Crossroads: Three post-trial alternative decisions among farmers. Unpublished M.S. Thesis. UPLB, College, Laguna.
- DESTURA, P.D. 1978. The utilization of human and material resources in agricultural schools and colleges in Eastern Visayas. Unpublished Ph.D. dissertation. UPLB, College, Laguna (March).
- DIVINAGRACIA, C.N. 1969. The training needs of backyard and commercial poultry raisers in Camarines Sur. Unpublished M.S. Thesis, UPLB, College, Laguna. (November). p. 62.
- DOBBS, R.C. 1966. Self-perceived educational needs of adults in a declining community and a non-declining community. Ed.D. dissertation. Indiana University, Dissertation Abstract, 26(7), p. 5194.

- FEASTER, G. 1969. Measurement of determinants of innovativeness among primitive agriculturists. *Journal of Rural Sociology*, 33(3) University of Kentucky.
- FOSTER, P.J. 1966. The vocational school fallacy in development planning. Charles Arnold Anderson and Mary Jean Bowman (ed.). *Education and Economic Development*. Chicago: Aldine Publishing House. p. 159.
- GAGNI, A.O. 1978. Farmers' training and rural development. Staff Research. UPLB, College, Laguna (August). p. 20.
- GUIÑAREZ, B.S. 1978. Community decision-making for rural development in Philippine rural villages. Unpublished M.S. Thesis, UPLB, College, Laguna, (March), p. 59.
- HOYT, L. 1965. Competencies on livestock needed by farmers. M.S. Thesis, Iowa State University Press, Iowa. p. 220.
- JERUSALEM, F. 1978. Factors associated with job involvement in community development projects or some community members in five barangays in Laguna. Unpublished M.S. Thesis, UPLB, College, Laguna.
- JOHARI, A. 1973. Expressed needs of homemakers as a basis for extension program planning in Pila, Laguna, Philippines. Unpublished M.S. Thesis, UPLB, College, Laguna (September), p. 117.
- JULIANO, C.P., JR. 1967. The relationship between some characteristics of rice farm operators and adoption of some recommended practices in rice production in seventeen barrios of Laguna. Unpublished M.S. Thesis, UPLB, College, Laguna (April). p. 36.
- LALL, V.S. 1973. Role perception and in-service training needs of rural life program workers of church projects of rural uplift in the Philippines. Unpublished M.S. Thesis, UPLB, College, Laguna (April). p. 111.
- MANUEL, J.L. 1977. A national policy framework for human resource development. NBE Staff Report. Metro Manila (Mimeographed).
- MEIER, G.M. 1964. Leading issues in development economics. New York: Oxford University Press. p. 270.

- MIKRUT, J.J., JR. 1970. Adult education for migrants. *Journal of Extension*. 8(4), p. 46.
- NAYGA, R.C. 1973. Farmer development programs of selected agencies in the Philippines. Unpublished Ph.D. dissertation, UPLB, College, Laguna (March). p. 63.
- NOLLEDO, J.N. 1976. Principles of agrarian reforms and taxations. Caloocan City: Philippine Graphic Arts, Inc. p. 14.
- SABAS, H.V. 1978. Training as support to agricultural and rural development. *Extension Forum*. 2(1). UPLB, College, Laguna (January-March), p. 6.
- SALCEDO, A.M. 1972. In-service training needs of agriculture teachers in public elementary schools. Unpublished M.S. Thesis, UPLB, College, Laguna (December). p. 14-67.
- SALCEDO, R.N. 1972. Instructional needs of adult farmers in Leyte. Unpublished M.S. Thesis, UPLB, College, Laguna (June), pp. 34-100.
- STOGDILL, R.M. 1962. Intragroup-intergroup theory and research, in Muzafer Sherif (ed.), *Intergroup Relations and Leadership*. New York: John and Wiley and Sons, Inc. p. 56.
- THANUPON, S. 1986. Extension and client systems' perception of rice farmers' training needs in Chiangmai, Thailand. Unpublished Ph.D. Dissertation, CLSU, Muñoz, Nueva Ecija.