EXTENSION PROGRAM OF SNAS FOR TRANSIENT FARMERS : AN INSTITUTIONAL MODEL

A Thesis

Presented to

the Faculty of

Samar State Polytechnic College

Catbalogan, Samar

In Partial Fulfillment

of the Requirements for Master of Arts Degree

Major in Administration and Supervision

FELICIANO V. SADULLO

March, 1993

APPROVAL SHEET

In partial fulfillment of the requirements for the degree, Master of Arts, this thesis entitled **"EXTENSION PROGRAM OF SNAS FOR TRANSIENT FARMERS IN SAN JORGE, SAMAR: AN INSTITUTIONAL MODEL"** has been prepared and submitted by **Feliciano V. Sadullo**, who having passed the comprehensive examination is hereby recommended for oral examination.

DOMINADOR Q. CABANGANAN, Ed.D.
Adviser

- -

Approved by the Committee on Oral Examination with a rating of PASSED

SENECIO D. AYONG, DPA/Ed.D.
Chairman

TERSITO A. ALIPOSA, Ph.D./Ed.D.
Member

BERNARDO S. OLIVA, Ph.D.
Member

MARILYN D. CARDOSO, MTE
Member

- -

Accepted in partial fulfillment of the requirement for the degree, Master of Arts, major Administration and Supervision.

DOMINADOR Q. CABANGANAN, Ed.D.
Dean, Graduate School

Date of Oral Examination:

February 5, 1993

ACKNOWLEDGEMENT

The researcher recognizes the assistance of the following persons for without them the completion of this study would not have been made possible:

Dr. Dominador Q. Cabanganan, Dean of the Graduate School, the researcher's thesis adviser, for his fatherly inspiring advice, invaluable assistance and professional guidance from the beginning of this study up to the completion.

Dr. Senecio D. Ayong, SSPC Vice President for Administration for his generous assistance in allowing the researcher to take the full academic load even during summer which led to the researcher's early completion of the academic requirements for the master's degree and for his laudable efforts and professional competence as chairman of the committee on oral examination.

Dr. Bernardo S. Oliva, SSPC Vice President for Academic Affairs for his invaluable suggestions and meticulous corrections on this research manuscript;

Dr. Tersito A. Aliposa, Supervisor of Student Teaching, for his professional guidance and help in choosing a timely and most necessary problem for research;

Mr. Oscar M. Neypes, Vocational School Administrator,

Samar National Agricultural School, AVIP Secretary, for giving the researcher an AVIP Scholarship which provided the qualification for the researcher to undertake this study;

Prof. Alejandro E. Cananua, SSPC Planning Officer and Board Secretary, the researcher's technical consultant, for his meticulous corrections and fatherly advice which inspired the researcher most.

Mrs. Marilyn D. Cardoso, SSPC Statistician for her lengthened patience in computerizing the corrections made repetitiously on this manuscript and for her discreet computations of the data which led to the logical interpretation of the research results;

Likewise, the researcher gratefully recognizes the cooperation and assistance of his loving wife, PURIFING and children, GAUDENCIO, VERONICA, RUBEN, JOSEPHINE, and PERLA;

And above all, to GOD ALMIGHTY for all the graces and blessings bestowed on the researcher in order to carry on with his work against all sorts of difficulties.

To all these wonderfully generous people, my endless word of thanks and sense of gratitude.

Felising Sadullo

D E D I C A T I O N

The researcher heartily dedicates this humble piece of work to the Samar National Agricultural School and its service areas where the peasant hillyland farmers close to his heart have lived and now still living a miserable life.

Felising

ABSTRACT

This study attempted to figure out what assistance and/or services (material and technological), would induce these underemployed peasant transient farmers to undertake the cultivation and rehabilitation of these vast idle cogonal lands and consequently formulate a model of extension program of SNAS for the realization of this purpose. The descriptive-evaluative survey method of research was employed in this study using the interview guide as the principal instrument in gathering the data and information needed. One hundred peasant transient farmers were interviewed in this study. They were 10% representative of each of the 10 randomly chosen barangays of San Jorge, Samar. Majority of the transient farmers, 84 or 84% traditionally prepared the land for planting by caingin followed by burning when dry, grabbing, and weeding or "saksak" and the land was ready for planting. Only a few, 16 or 16% prepared the land correctly by caingin, grabbing, plowing, harrowing and farrowing which prepared the land for planting any of the crops they like. The transient farmers' habitual transfer from one farming area to another would be minimized if not absolutely prevented by helping them establish a fruit orchard or plantation of perennial crops where they have interest in building permanent dwelling houses. The institutional model of extension program, hereinafter formulated be implemented by the Samar Agricultural School (SNAS).

TABLE OF CONTENTS

TABLE OF CONTENTS
(Cont'd.)

TABLE OF CONTENTS
(Cont'd.)

Chapter 1

THE PROBLEM

Introduction

National development in all its aspects; economic, social, cultural and political, depends upon the ability of its citizenry to explore and employ its human and natural resources in the productive process of industrialization.[1] In fact, Article XII, Section 1, paragraph 2 of the 1987 Philippine Constitution supports this contension and provides that:

> The State shall promote industrialization and full employment based on sound agricultural development and agrarian reform through industries that make full and efficient use of human and natural resources, and which are competitive in both domestic and foreign markets.[2]

McConnell[3] was emphatic in saying that no matter how far a country can develop its human resources through

---

[1]McConnell, Campbell R., Economics, Principles, Problems and Policies, 3rd Edition, 1960, page 27.

[2]Palma, Muñoz, Cecilia, The Constitution of the Republic of the Philippines, Adopted by the Constitutional Commission of 1986 at the National Government Center, Quezon City, Philippines, October 15, 1986.

[3]McConnell, page 27.

education, if it cannot employ such human resources in the correct exploitation of its natural resources to produce the goods and services needed for the economic and social well-being of its people, development in the real sense cannot be realized. As Salonga once said, "Education is power only when it is translated into practice."[4]

In their study of Education, Manpower and Economic Growth, Harbison and Meyer as cited by Arteche[5] did not include the Philippines in the classification of 75 nations as either, advanced, semideveloped, developing or underdeveloped because it was rated high in manpower development but rated low in economic development. Unemployment and underemployment of both human and natural resources is one among the many problems of our country today. Former President Aquino said, "2.9 million of our people are still jobless, and 7.2 million are under-employed".[6] Maceda said, "our over-all unemployment in

---

[4]Salonga, Jovito R., Commencement Address delivered at Silliman University, Dumaguete City, 1971.

[5]Arteche, Jesusita J., Paradoxical Philippines, Lecture Handouts in Educational Planning, Summer, 1991, SSPC, Catbalogan, Samar.

[6]Aquino, Corazon C., State of the Nation Address, Philippine Public Affairs Annual, 1989-1990, page 87.

April, 1991 is 15.1 percent."[7] This is a serious problem.

Samar in particular has its own share of these unemployment and underemployment problem because it has wide, idle agricultural lands. It doesn't need statistics to prove this because anyone who has traveled to farflung barangays in the countryside or even along the national highway can bear witness to the fact that farm crops such as camote, cassava, corn, bananas and fruit trees can be seen only in small streaks of isolated areas of cultivated farm lots scattered throughout the extensive vacant hillsides which are all agricultural lands but are dominated by cogon grasses. Surely, these were virgin forests some fifty or one hundred years ago. The tall trees in these areas must have been cut down by transient farmers purportedly to convert such areas into farm lands. However, continuous cropping in the traditional way, depleted the soil therein and cogon grass came forth as the dominant competator to the short-season crops of

---

[7]Maceda, Ernesto, Who will Redeem Our People? Privilege Speech, Reported by: Hilarion M. Henares, Jr., Philippine Daily Inquirer, August 4, 1991, page 5.

transient farmers. This transient farming style has caused the awful degradation of our upland farming areas. The productivity of the uplands continue going down, discouraging the youths in the rural barangays from getting into farming resulting in rural-urban migration of young men and women joining the caraban of job seekers.

This is clearly a waste of land and manpower resources, hence, the urgent need for an innovative farming technology to alleviate this unemployment of land resources and underemployment of farm labor resources in Samar most particularly in the town of San Jorge.

Our government is releasing funds annually for the agricultural development of the province of Samar. The Land Bank of the Philippines (LBP) is again releasing within this year 1992 a total of P8 billion worth of production and marketing loans to farmer-members of 7,000 multi-purpose cooperatives nationwide[8]. Inspite of these, the entrepreneurial component of development in the private sector do not demonstrate desirable initiative, willingness and ability in the utilization of available

---

[8]Galvez, Manny, Land Bank Allots P8 B for Farmer-Members of 7,000 Cooperatives, The Philippine Star, January 7, 1992.

land and manpower resources. Instead, there is a noticeable massive exudos of potential labor for work abroad; an apparent lack of entrepreneurial capability among our people more particularly in the agricultural business ventures.

In view of these, the researcher has conceived of launching a study to evolve and formulate an institutional model of agricultural extension program premised on the definition of extension given by Combs who said that:

> Extension is an informal education process which aims to teach rural people how to inmprove their level of living by their own efforts, through making wise use of natural resources at their disposal in better systems of farming, homemaking and industries for the benefit of the individual, the family, the community and the nation[9].

Extension is one of the social functions of higher education institutions.[10] Hence, the Samar National Agricultural School (SNAS) cannot remain indifferent to the problems and economic aspirations of the farmers in the rural communities in its service area. Through its

---

[9]Combs, Philip and Ahmed, Manzcor, Attaching Rural Poverty: How Non-Formal Education Can Help, World Bank Publication, 1974.

[10]Agner, Soledad G., "Development Research in Graduate Education", SSPC Research Journal, 1990.

Vocational Agriculture Teachers (VAT), it has to reach out to the rural communities by way of a sustainable extension program to perform its expected role in society.

The researcher, however believes that evolving and formulating an extension program should not only be based on previous theories and studies as well as distant and casual observations, but should rather be based on an actual survey and investigation of the present conditions of lands, farm management capabilities, problems, aspirations and attitudes to new farming technologies of the target clientele in the service area of the SNAS, hence this study.

Theoretical Framework

This study is anchored on the "Full Employment and Full Production" economic theory as explained by McConnell who said that:

> Economic efficiency is achieved when full employment and full production are realized or when unemployment and underemployment are avoided.
>
> Economic efficiency requires first, that available resources be actually utilized in the production of goods and services rather than allowed to lie idle.
>
> Unutilized resources --- both human and property --- obviously mean waste and

> inefficiency. Unemployment is the height of economic inefficiency; when society fails to put its available resources into the productive process, it obviously realizes no output at all.[11]

In conformity with this theory, these idle agricultural lands which have been abandoned by these peasant transient farmers after depleting the land through undesirable farming practices is a waste of economic resource. This need to be utilized by our society if we are to attain efficiency and achieve economic growth and national development. Our peasant transient farmers too are hardworking farmers, but their efforts are not efficiently utilized. Their habitual transfer from one farming area to another and leaving cogonal lands behind instead of perennial agricultural crops is a waste of both the land and their efforts. They should be helped and taught until they learn the appropriate upland farming technology.

Helping these peasant transient farmers will operationalize the mission of the Department of Agriculture (DA). This was enunciated by Bacani who said:

---

[11]McConnell, Campbell R., Economics, Principles, Problems and Policies, 3rd Edition, 1960, page 27.

> "A truly democratic society must give top priority to the welfare of the majority of its people. Recognizing that the majority of the Filipino people are farmers and fishermen, we must therefore improve their productivity, increase their real incomes, and uplift the quality of their lives.
>
> We must pursue this goals to succeed in our war against poverty, in our crusade for social justice, in our quest for national prosperity.
>
> We must establish a policy framework which will encourage private initiative to promote the efficient allocation and optimal utilization of scarce resources, consistent with the principles of equitable and sustainable development. We must develop the agricultural sector as the sound foundation for real industrialization.
>
> We believe that this historic struggle for development can only be achieved thru the mobilization of the broad masses of our people in the rural areas. Only then can the benefits of democracy be enjoyed by the majority of the Filipino people."[12]

Accordingly, the school as a multipurpose educational institution can do much, in coordination with other government agencies to carry out such development objectives of our government. The school is expected to perform a variety of roles which can be gleaned from Article XIV, Section 3, paragraph 2 of the 1987 Philippine Constitution stating among others that: "All educational

---

[12]Bacane, Senen C., Mission Statement, Technotrends, October-December, 1990, page 23.

institutions shall inculcate patriotism and nationalism, foster love of humanity, respect for human rights, teach the duties and rights of citizenship, strengthen ethical and spiritual values, encourage critical and creative thinking, broaden scientific and technological knowledge and promote vocational efficiency."[13] Towards this end, Secretary Careño[14] emphasized the "Bayan Muna Bago Ang Sarili" educational commitment as a means of transforming Philippine society and effecting economic growth. In explaining this concept, Careño enumerated student rallies, drug addiction, plundering and depleting our natural resources, killing and other dehumanizing activities among the many problems that beset the country today. The worst part of all these he said, is that we have an indifferent people. People who will not move unless their interests are affected. At present, Filipino thinking is that, for as long as it does not affect us or our families, then we prefer to be unconcerned and

---

[13]Palma, Muños Cecilia, The Constitution of the Republic of the Philippines, Adopted by the Constitutional Commission of 1986 at the National Government Center, Guezon City, Philippines, October 15, 1986.

[14]Careño, Isidro D., Speech Delivered During the Educators Congress held at Baguio City, Philippines, 1991.

indifferent. We always tend to think in terms of what is good for us, for our families and not for our community and nation. As a people, our actions has been largely dictated by what is good for us. "Ako Muna, Ang Pamilya Ko Muna Bago Ang Bayan." "Bakit hindi natin baligtarin?" "Ang Bayan Ko Muna Bago Ang Sarili." CareÑo continued saying that: "talking about such issues and conflicts without looking at what we can do about them is merely rhetorics." "We have planned and talked for a long time now. We should now do something tangible."[15]

Conceptual Framework

Developing the desired farming attitudes and values among transient farmers and getting them interested in the cultivation and rehabilitation of idle cogonal lands in San Jorge, Samar is a difficult management task. However, the researcher believes that an assessment survey of said clientele's socio-economic conditions, economic aspirations and land cultivation capabilities can generate sufficient information and data from which to evolve and formulate a model of extension program which is both acceptable to the transient farmers and also

---

[15]Ibid.

CONCEPTUAL FRAMEWORK

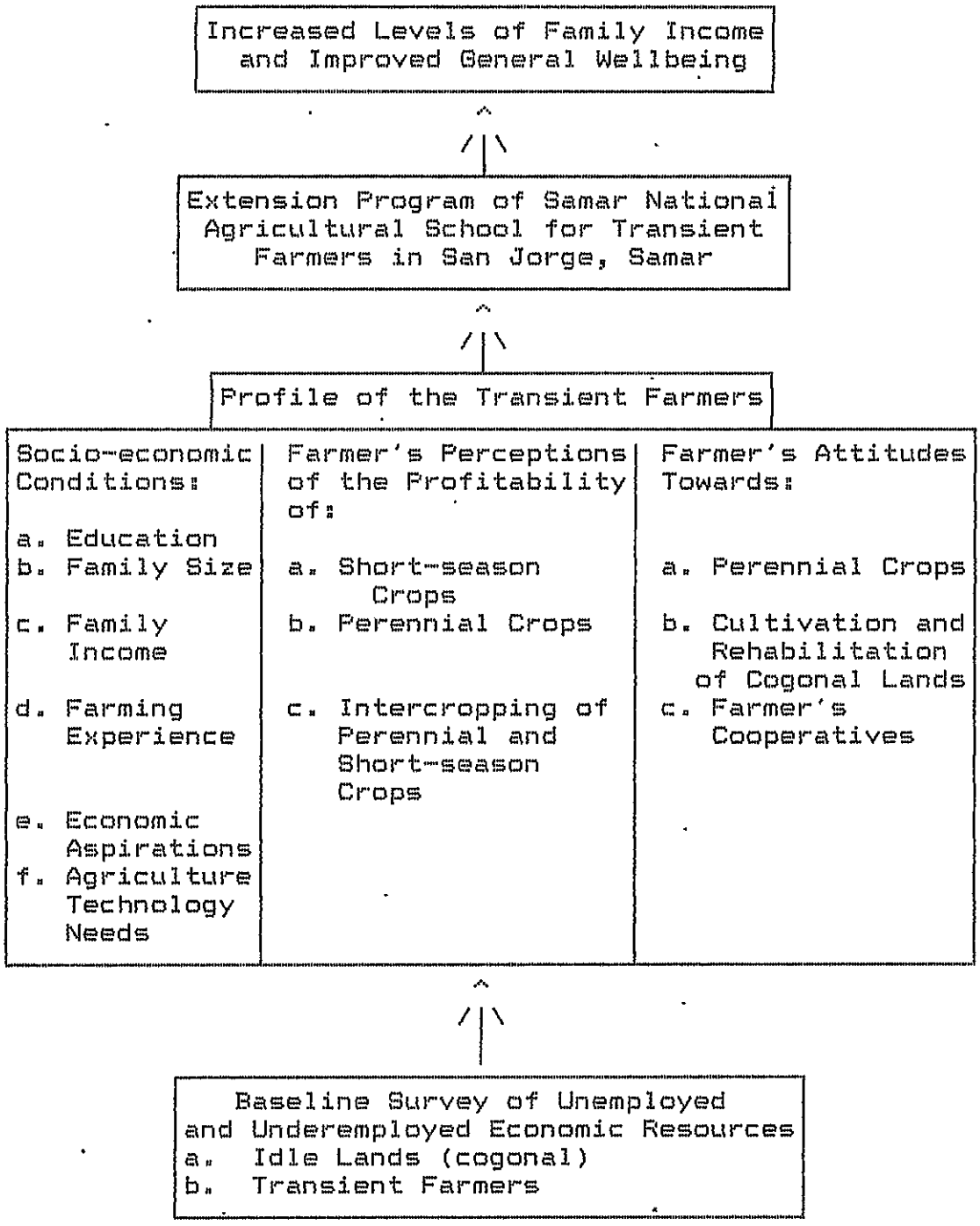


Figure 1. The Conceptual Framework of the Study

sustainable by the school who will implement the program, to achieve the desired development objective (Figure 1). In other words, the model of extension program should provide sufficient technological and material assistance to motivate and induce the transient farmers to adapt the desired agriculture technology. At the same time, taking into consideration the scarce resources of the school (personnel services and material supplies) for a continued implementation of the extension program. Otherwise the objectives of the extension program will not be realized. It is therefore necessary to investigate and analyze the profile of these transient farmers with respect to (a) education, (b) family size, (c) family income, (d) farming experience and practices, (e) economic aspirations, and (f) agriculture technology needs. Their perceptions on the profitability of perennial agricultural crops compared with short-season crops as well as their attitudes towards the cultivation and rehabilitation of idle cogonal lands needs to be investigated and analyzed through an assessment survey so that the findings can be used as a sound bases for formulating a model of extension program for the said transient farmers.

Statement of the Problem

The main purpose of this study is to formulate an

economically viable institutional model of agricultural extension program designed to motivate and induce transient farmers to adapt the recommended upland farming technologies through a study of their socio-economic condition, farming practices and needs, economic aspirations, attitudes towards cultivation of perennial crops and rehabilitation of cogonal lands.

This study, therefore, sought answers to the following specific questions:

1. What is the profile of the transient farmers with respect to:

   1.1 sex?

   1.2 age?

   1.3 education?

   1.4 family size?

   1.5 farming experience?

   1.6 monthly income?

   1.7 assets?

   1.8 liabilities? and

   1.9 net worth?

2. What are their farming practices and agriculture technology needs?

3. What are the economic aspirations of these transient farmers in San Jorge, Samar?

4. What attitude do transient farmers have towards:

4.1 planting of perennial agricultural crops?

4.2 cultivation and rehabilitation of idle cogonal lands? and

4.3 membership with farmers cooperatives?

5. Which of the following cropping patterns is most profitable as perceived by the transient farmers themselves:

5.1 especialization of perennial crops, (coconuts, lanzones, jackfruits, etc.)?

5.2 especialization of short-season crops, (rice, corn, camote, etc.)?

5.3 intercropping of both perennial and short-season crops?

6. Are there significant differences in the profitability of:

6.1 perennial agricultural crops?

6.2 short-season crops? and

6.3 intercropping of both perennial and short-season crops?

7. Based on the findings of this study, what assistance and/or services should the model of extension program provide so that it is acceptable by the transient

farmers and also sustainable by the Samar National Agricultural School wih limited resources to implement the program?

Hypothesis

There are no significant differences in the profitability of:

1. perennial agricultural crops;
2. short-season crops; and
3. intercropping of both perennial and short-season crops as perceived by the transient farmers themselves.

Importance of the Study

To the school. This study is intended to provide the Samar National Agricultural School with a ready-made scheme of community extension program that is innovative, practical and economical in terms of human and material resources. Such a scheme is necessary to make the extension program of SNAS sustainable and realistic.

To the Transient Farmers. The extension program evolved from the findings of this study, if implemented, will enhance the farm management capability of the transient farmers. Vocational Agriculture Teachers will be teaching them informally right in their home farms about

ways and means of getting production loans aside from the farm management technologies and cultural practices which they will learn.

To the Community. The institutionalized extension program envisioned in this study will promote effective descimination of the recommended upland farming technologies. Organizing the transient farmers in each barangay into cooperatives will promote a feeling of oneness and belonging and will enhance their credibility for getting production loan assistance from government and private lending institutions. Stealing and destructive competitions will be minimized. Such community organizations can serve as channel for vital government services to the rural communities. Increased levels of family income consequent to the implementation of the extension program will make an economically progressive community.

Scope and Delimitation of the Study

To enhance the productivity of idle cogonal lands and underemployed peasant transient farmers in San Jorge, Samar (map on page 18) is the main concern of this study. Thus, the researcher wants to come up with a model of extension program of SNAS designed to motivate and induce these said transient farmers to adapt the recommended

upland farming technologies. The desired model of extension program was formulated on the basis of information and data elicited from said transient farmers through a baseline survey and study limited to their socio-economic conditions, farming practices, agriculture technology needs, economic aspirations, attitudes towards perennial agricultural crops, attitudes towards cultivation and rehabilitation of idle cogonal lands and attitudes towards membership with farmers cooperatives.

The respondents in this said baseline survey was limited to heads of households of only ten percent of the total number of households of transient farmers in each of the ten selected barangays of San Jorge as shown in the map on page 60. The selection of the ten barangays was made through random sampling among four barangays constituting each of the ten goegraphical locations into which the town was subdivided for this purpose as explained in the sampling procedure in Chapter 3.

Due to financial and time constraints, no attempt was made to investigate the health conditions and intellectual abilities and other factors which might affect the occupational aptitudes and economic aspirations of the respondents. For the same reason, the comparative profitability of perennial agricultural crops, short-season crops and

SAMAR

DISTANCE CHART FROM TACLOBAN CITY TO ALL POINTS IN SAMAR.

CITY / MUN.	TACLOBAN CITY	
ALLEN	306	KMS.
ARTECHE	384	"
BASEY	40	"
BORONGAN	196	"
BALANGIGA	305	"
BALANGKAYAN	226	"
CALBAYOG	782	"
CATARMAN	268	"
CATBALOGAN	110	"
CALBIGA	161	"
CAN-AVID	361	"
CATUBIG	334	"
DOLORES	160	"
GANDARA	452	"
GEN. MAC ARTHUR	271	"
GUIUAN	312	"
QUINAPUNDAN	285	"
GIPORLOS	297	"
GAMAY	368	"
HINABANGAN	73	"
HERNANI	256	"
JIABONG	197	"
JIPAPAD	369	"
LORENTE	244	"
LAWAAN	316	"
LAVEZARES	277	"
LAOANG	206	"
LAS NAVAS	335	"
LAPINIG	380	"
MAYDOLONG	224	"
MERCEDES	305	"
MARABUT	327	"
MATUGUINAO	174	"

CITY / MUN.	TAC. CITY	
MOTIONG	90	KMS.
MONDRAGON	272	KMS.
ORQUENDO	185	"
ORAS	182	"
PAMBUJAN	297	"
PALAPAG	323	"
SULAT	154	"
SN. JULIAN	160	"
SALCEDO	296	"
SN. POLICARPO	203	"
SN. JOSE de BUAN	153	"
SN. JORGE	148	"
STA. MARGARITA	173	"
SN. ISIDRO	322	"
SN. JOSE	267	"
SN. ROQUE	219	"
STA. RITA	28	"
TAFT	143	"
TARANGNAN	144	"
TINAMBACAN	195	"
VICTORIA	312	"
WRIGHT	85	"

PRODUCED BY: REGL. PLANNING UNIT - DEDS RO-VIII
VIRGINIA MONERES

intercropping of perennial and short-season crops were not determined imperically but only on perceptions of transient-farmer-respondents.

The generalizations, therefore, that were arrived at consequent to this study is far from being exhaustive due to reasons stated above and absence of previous studies concerning the welfare of the transient farmers and the rehabilitation of idle cogonal lands in San Jorge, Samar.

This study was undertaken beginning June, 1991 and continued until January, 1993.

Definition of Terms

Inorder to have a common frame of reference with prospective readers of this study, the following terms are defined as used in this study:

Aspirations. This refers to desires, hopes and ambition in life, the attainment and achievement of which all efforts are directed by the individual or group concerned.

Attitude. This refers to a persons behavior as conditioned by his awareness of something. This can be an appreciation, attraction, indifference or abhorence.

Caingin. The cutting down of tall grasses, bushes, vines, shrubs, and trees of the forest or second-growth

forest to be burned when dry in preparation for land cultivation.

Entrepreneurial capability. This refers to a persons or group of persons ability to manage a business enterprise profitably; the rish-taking spirit driven by the search for profit.

Extension. Chang[16] defines extension as an informal education process which aims to teach rural people how to improve their level of living by their own efforts through making wise use of natural resources at their disposal in better systems of farming, homemaking and industry.

Farm by-products. These are parts of farm products, such as corn bran, rice bran, camote peelings, pineapple peelings, etc., which would otherwise go to waste if there are no animals to feed.

Full employment. The term refers to a state or condition when the number of vacant jobs is always greater than the number of unemployed men, not slightly fewer jobs. It means that the jobs are at fair wages, of such a kind, and so located that the unemployed men can reasonably be expected to take them; it means, by

---

[16]Chang, Chi Wen, Rural Asia Marches Forward, Los Baños, Laguna: UPCA, 1969.

consequence, that the normal lag between losing one job and finding another will be very short.[17]

Full production. This is achieved when society gets the maximum amount of goods and services produced with its limited inputs of employed resources.

Human resources. The term refers to all employable persons considering age and health conditions;

Idle cogonal lands. These are areas of abandoned land having cogon grasses as its dominant vegetation and depleted through continued raising of short-season crops by transient farmers.

Intercropping. A farm cropping system where different plants are planted between hills or between rows of another kind of plant crop in the same field.

Model. Starr[18] defines model as a constructed simplification of reality. In this study, the model to be evolved is a concrete one. It is particularistic, since it contains more specific information.

---

[17]Romualdez, Eduardo Z. Sr., Yoingo, Angel Q. and Casem, Antonio O., Jr., Philippine Public Finance, GIC Enterprises and Co., Inc. Manila, 1973, p. 36.

[18]Starr, Philip C., Economic, Principles In Action, Library of Congress Catalogue in Publication Data, 1981, p. 254.

Natural resources. The term refers to land, minerals, animals, vegetation, water, air, sunshine, climate and all other conditions/factors for agricultural crops production.

Non-formal education.[19] It refers to any organized activity outside the established formal school system, whether operating separately or as an important feature of some broader activity that is intended to serve identifiable learning clients and learning objectives. In this study, the term refers to the farm development strategies/technologies.

Orchard management financing scheme. A proposed scheme of assistance to transient farmers by SNAS; the former being motivated and induced to prepare the land for the planting of fruit trees seedlings and the latter provides free planting materials as well as technological assistance through the services of Vocational Agriculture Teachers and Instructors.

Perennial plant crops. These are agricultural plant crops whose productivity is attained in not less than two years and continue to be productive for many years more such as coconuts, lanzones, jackfruits, mangoes, etc.

---

[19]Fadrilan, Rinzi, "A Closer Look At Nonformal Education", The Modern Teacher, November, 1979, p. 251.

Profitability. The capacity of an enterprise to produce more than what has been invested in terms of money and efforts per unit of time; or the magnitude of income over costs of production.

Short-season crops. These are agricultural crops that attain productivity in only three to six months, rarely twelve months; the plant body dies as the crop is harvested like rice, corn, camote, cassava, etc.

Sustainable extension program. An extension program that can possibly be maintained or carried out indefinitely for a long period considering available resources.

Transient farmers. They are traditional farmers habitually transfering from one farming area to another every two or three years of successive planting of short-season crops, thus depleting the soil and abandoning the same when cogon grass sets in as the dominant vegetation.

Underemployment. The term refers to inappropriate utilization or allocation of an economic resource. Economists call this "disguised unemployment" because a factor of production is utilized but cannot produce as much as when it is properly used. An example of this is when a sloping land is utilized for rice or corn production and a fertile valley is utilized as grazing

land or when a farmer is cultivating the land with only a dull bolo.

Unemployment. A state or condition when any of the four factors of production (land, labor, capital and entrepreneur) is left idle or simply not doing anything.

Upland farmers. These are farmers whose farming areas are rolling or sloping as distinguished from plains and irrigated low lands. Celestino[20] et al, call this hillyland farmers. He defined hillyland as "an area at least one square kilometer (100 hectares) of which 70 percent of the land forms have more than 15 percent slope gradient; or a maximum 30 percent of the land forms have less than 15 percent slope gradient and with no contiguous level (< 15% slope gradient) area of more than 10 hectares."

---

[20]Celestino, Andres F. and Elliot, Florencia P., Hillyland Farming Systems in the Philippines: An Assessment, A Publication of the Farming Systems and Soil Resources Institutte College of Agriculture, University of the Philippines at Los Baños College, Laguna, 1986, p. 6.

Chapter 2

REVIEW OF RELATED LITERATURE/STUDIES

This chapter reviews various literatures and studies concerned with national economic development such as employment of economic resources, extension programs, soil conservation and crops production practices and other upland farming technologies having similar orientation of interest as the present study. Among them are sections of the 1987 Philippine Constitution, the 1990 mission statement of the Department of Agriculture (DA), the 1989 Administrative Order of the Department of Environment and Natural Resources (DENR) and the Extension Programs of some colleges and universities as well as studies on soil conservation practices and upland farming technologies in other provinces and countries.

Related Literature

Some sections of the 1987 Philippine Constitution found supportive to the objectives of this study are: (a) Section 1 of Article XII. "The goals of the national economy are a more equitable distribution of opportunities, income and wealth; a sustained increase in the amount of goods and services produced by the nation

for the benefit of the people; and an expanding productivity as the key to raising the quality of life for all, especially the under-previleged".

"The state shall promote industrialization and full employment based on sound agricultural development and agrarian reform, through industries that make full and efficient use of human and natural resources, and which are competitive in both domestic and foreign markets".

"In the pursuit of these goals, all sectors of the economy and all regions of the country shall be given opportunity to develop. Private enterprises including corporations; cooperatives, and similar collective organizations, shall be encouraged to broaden the base of their ownership". (b) Section 5 of Article XIII. "The state shall recognize the right of farmers, farm workers and landowners, as well as cooperatives, and other independent farmer's organizations to participate in the planning, organization and management of the program, and shall provide support to agriculture through appropriate technology and research, and adequate financial, production, marketing, and other support services".

The provisions of the foregoing sections of the 1987 Philippine Constitution are sound basis for evolving a model of extension program designed to promote full and

efficient employment of idle lands and inefficient upland farmers in San Jorge, Samar.

The 1990 mission statement of the Department of Agriculture (DA), and the objectives of the Department of Environment and Natural Resources (DENR) stipulated in Administrative Order No. 123 are in complete agreement with the interest and purpose of the extension program evolved from this study. In the words of Bacane, the 1990 mission of the Department of Agriculture, states that:

> A truly democratic society must give top priority to the welfare of the majority of its people. Recognizing that the majority of the Filipino people are farmers and fishermen. We must therefore improve their productivity, increase their real income, and uplift the quality of their lives.
>
> We must pursue these goals to succeed in our war against poverty, in our crusade for social justice, in our quest for national prosperity.
>
> We must establish a policy framework which will encourage private initiative to promote the efficient allocation and optimal utilization of scarce resources, consistent with the principle of equitable and sustainable development. We must develop the agricultural sector as the sound foundation for real industrialization.
>
> We believe that this historic struggle for development can only be achieved through the mobilization of the broad masses of our people in the rural areas. Only then can the benefits of democracy be enjoyed by the majority of the Filipino people.[21]

---

[21]Bacane, Senen C., Mission Statement, Technotrends, October - December, 1990, page 23.

The objectives of the 1989 Administrative Order No. 123 of the Department of Environment and Natural Resources (DENR) are:

1. Democratize access to forest resources through the issuance of Community Forestry Management Agreements (CFMA's) to organized rural communities.

2. With the organized rural communities, protect, manage and rehabilitate the remaining residual forests of the country.

3. Improve the rural community's socio-economic conditions through contract reforestration, timber stand improvement, assisted natural regeneration, agroforestry, forest products extraction, processing and selling forest products, and promotion of alternative forest and non-forest-based livelihood schemes.

4. Gradual transfer of direct DENR's responsibility in protecting and managing a percentage of publicly owned residual forests to organized communities with the initial involvement of NGO's in social preparation which include among others community organizing, training, resource inventory, and promotion of and assistance in viable

livelihood alternatives by recycling a percentage of pump-priming funds and income from the sale of forest products.

5. Provide an institutional model that will facilitate the integration of DENR's various upland development programs on an area bases so that implementation, coordination, and delivery of services to upland communities will improve and be more organized.[22]

The implementation of the model of extension program evolved and formulated from the findings of this study by SNAS will be a symbiotic and fruitful coordination of the school with DENR, it being directed towards the achievement of the foregoing objectives of said agency.

In an article entitled, "Development Research in Graduate Education", Agner[23] said that higher education schools should have four functions: (1) instruction, (2) research, (3) extension and, (4) production

---

[22]Guiang, E. S., "Community Forestry Program (CFP) Concepts, Vission, Objectives, Strategies and Future Plans", Administrative order No. 123, Department of Environment and Natural Resources, 1989.

[23]Agner, Soleda G., "Development Research in Graduate Education," SSPC Research Journal, 1990.

rationalizes the need of SNAS to implement the model of extension program evolved from this study.

In the same line of thought, Manahan[24] said that vitalizing extension programs of tertiary schools in such fields as agriculture, home industries and income generating activities is one of the recommended strategies to reach out to the rural sectors.

Extension in its higher form is education for freedom which seeks to help persons to use the liberty of action with which a democratic society is constructed.[25] In its lower form, it is an informal education process which aims to teach rural people how to improve their level of living by their own efforts , through making wise use of natural resources at their disposal in better systems of farming, homemaking and industries for the benefit of the individual, the family, the community and the nation. In this concept, the rural people are underscored as the main beneficiary of extension programs, thus, in the traditional concept, this was the function of the Bureau

---

[24]Manahan, William G., Theoretical Dimensions of Educational Administration, New York, McMillan Publication, 1975.

[25]Op. Cit. p. 27

of Agricultural Extension and Agricultural Institutions.[26]

Extension programs of various types are integral parts of the total programs of many institutions.[27] Referred to sometimes as community services at the tertiary level, it is either within the curricular offerings of some institutions or is based on voluntary initiative of students and faculty.[28] Among the community extension services integrated in the curriculum are the one year internship and the one year practicum in the rural areas before students may be admitted to take the Board Examination in medicine. Another is the internship program for candidates to the BSEE degree in teacher education institutions.

Other extension programs with or without government support were drawn up according to the field of various disciplines in the bigger universities or colleges like the Samar State Polytechnic College, San Carlos University and Xavier University. Samar State Polytechnic College

---

[26]Op. Cit. page 27

[27]Ebel, Robert (Ed.) Encyclopedia of Educational Research, New York: McMillan Company Ltd., 1969.

[28]Zwenepol, Paul, Tertiary Education in the Philippines: A Systems Analysis, Quezon City: Alemar's Phoenix, 1975.

offers short-term livelihood skills training programs on-campus and off-campus such as dressmaking, tailoring, cosmetology, woodworking, etc. Xavier University has a host of extension work for the people in the larger community beyond its campus. In its 1959-1979 pictorial report which was dedicated to the founder of the college, Rev. Fr. William Masterson, 16 community extension programs were mentioned under the headings Communal Farming by Peasant Farmers, Farmer's Settlement Projects, Miscellaneous Extension Service Clientele and Respective Projects, Educational Follow-up and Involvement Cooperatives, Feed-mill Projects and Campaign for Rubber Plantation.

In Siliman university, 11 academic and six non-academic units have been involved and in many instances, pioneered in socio-economic projects. The Silliman University Rural Community Integrated Development (SURCID) Program is an attempt to contribute to the development of the people in the barangays. So far, it has reached ten barangays in the municipality and will cover six municipalities.[29]

---

[29]Jadloc, Jovita C., An Institutional Model of A Community Extension Program for the Leyte State College, A Dissertation, Leyte State College, March 1981.

Another type of extension work is a program which combines formal and nonformal education in the service area. Examples of these are the Palawan National Agricultural College (PNAC) Bayanihan School System[30] and the Barrio Development School[31].

The PNAC school system is an integrated approach to rural development through the Bayanihan School concept undertaken by the Palawan National Agricultural College. It is a Four-Year Secondary Vocational Agriculture Curriculum in which the vocational subjects are offered during the third and fourth years in the university campus.

The Barrio Development School (BDS) conceived by Tito Contado in 1974 is an educational program in the secondary level systematically operated in the barrio and designed for the rural youths, 14-year old and over who decide to develop proficiency in farming and related occupations. The core of the instructional program is supervised farming which is conducted in the home farms of

---

[30]Palao, Miguel, Bayanihan Schools Vocational Development Program: Policies and Guidelines, DECS Staff, July, 1976.

[31]Contado, Tito, Barrio Development Schools, Department of Agricultural Education and Rural Studies, U.P. College of Agriculture, Los Baños, Laguna 1974.

students. One-half day is devoted to instruction while the other half is devoted to supervising farming program activities. The school is a partnership venture of the people and the government. This is partly supported by the community through the tuition fees of the students and the contribution of labor and money from certain school projects..

The foregoing conceptualization of extension program by authorities on the subject and the way the various types of extension programs are undertaken in other colleges and universities gaved the researcher an insight into the mechanics by which the present model of extension program can be successfully implemented.

Related Studies

An assessment of the hillyland farming systems in the Philippines[32] reveal that hillyland or upland farming areas are generally remote from centers of population, technological information and economic activities. They are often not served with adequate transportation

---

[32]Andres F. Celestino and Florencia P. Elliot, Hillyland Farming Systems in the Philippines: An Assessment, A Publication of the Farming Systems and Soil Resources Institute College of Agriculture, University of the Philippines at Los Baños College, Laguna, 1986, p.10.

facilities to have easy access to or to be accessible by institutional support services. This means that hillyland farmers are geographically and physically isolated from markets where they can sell their produce and buy farm inputs including household needs.

These factors, Celestino said, influence the type of crops that may be grown and the production technologies or management to be used. The production of perishable products as well as large capital investment cannot be prescribed for inaccessable areas[33].

A study of the production practices along the western side of Benguet province in the Northern Luzon area of the Philippines, Dar and Botengan[34] in 1985 have identified the following indigenous crop production practices of the uplanders:

1. Akleng Parang (Albizzia Procera) underplanted with various crops such as upland rice, ube, banana, pineapples, sweet potato, corn and ginger. Standing dead shrubs remaining after clearing the undervegetation are used as trellises for climbing crops. The akleng parang

---

[33]Celestino, Opcit, p. 11.

[34]Dar, William C., Food Crop Technologies for the Uplands, Technotrends, January-March, 1991, p. 3.

are not cut because the farmers are convinced on their importance in soil and water conservation. In addition, the trees are nitrogen fixers and are good materials for wood carving and are used extensively as house posts.

2. Mahogany (Swetenia Mahogani) intercropped with gabi, pineapple, ginger and banana while at the same time serving as trellis for either the ube or tugui.

3. Alnus (Alnus Japonica) coffee combination with the coffee trees spaced at 2 x 2 m. to as much as 15 x 15 m. Alnus provides nitrogen, being a nitrogen fixer; the shade requirements of coffee; and at the same time serve as fuel wood sources to the farm households.

There are other combinations but the above examples dramatize one important key element in the systems observed, and that is the personal component of the system has multipurpose uses that closely match the needs of the farm households.

One technology developed in the Philippines which has gotten international attention is the Slopping Agricultural Land Technology (SALT) developed by the Mindanao Baptist Rural Life Center in Kinuskusan, Bansalan, Davao del Sur. The system has as its centerpiece, the establishment of ipil-ipil hedgerows in double rows 50 cm. apart along the contour. On the space

between the hedgerows, 3 to 5 meters on the steep slopes and 6 to 7 meters on gradual slopes, field and permanent crops are grown at a ratio of one strip of permanent crops for every four strips of field crops. While the ipil-ipil hedgerows are being established, alternate strips are grown to annual food or cash crops. The cultivated strips are cultivated once the hedgerows are developed.

Dar[35] considered the use of hedgerows as a strategic approach to the introduction of soil conservation measures in the uplands. Its success, however, will depend on the relevance of hedgerows on the production activity of the farmers. To prove his point, Dar[36] cited the experience of the Farming System and Soil Resources Institute at U.P., Los Baños. In one of their farming systems' sites in Cebu, the use of Leucaena hedgerows immediately gained popularity when it was demonstrated that using the leaves as green manure to their staple crop of corn resulted to dramatic increases in yields. The improvement in corn yields provided the impetus for farmers to immediately adopt the hedgerow system.

---

[35]Ibid, p. 4

[36]Ibid, p. 5

Dar[37] is very emphatic on the relevant multiple uses of the hedgerows and the permanent component of the farming system because in the uplands, we are basically dealing with the poorest segment of the agriculture sector. They are basically subsistence farmers so that while they understand the reason for the declining productivity and are appreciative of the need to preserve the integrity of the land and environmental resources, they are in no viable position to implement measures solely for the purpose of soil conservation. Accordingly, technologies that must be developed to help them in this regard must contribute to their basic concern of survival.

One very promising option, said Dar[38] is the introduction of livestock utilizing the hedgerows and leaves of permanent crops as feeds. With livestock as a component of crop production system in the uplands, recycling of animal wastes to fertilize the crops will further enhance the productivity of the system. Successful integration of livestock has also been done in

---

[37]Ibid.

[38]Ibid.

Nepal by harnessing the potential of forage tree species.

In addition to the above technologies discussed, Dar[39] also considers shifting cultivation as another technology basically geared to maintain soil fertility for sustained productivity and therefore eliminates the necessity of the fallow period. Apart from technologies, Dar[40] stressed the fact that there are other avenues to address the problem of soil degradation. One promising avenue is communal farming. If the land area is consolidated and the appropriate production system are allocated according to the production capability of the area and the members share in the total production, then a much more rational land use can be realized. In the Philippines, with focus on cooperatives and the channeling of resources to farmer organizations, this arrangement offers an alternative to develope viable and sustainable production systems for the uplands.

On the critical research needs for sustainable upland farming, Dar said:

---

[39]Ibid.

[40]Ibid.

> I am of the opinion that the general area of focus will be the development of a viable schemes of effecting the shift of the existing production systems towards the growing of perennials and more permanent crops and tree species.
>
> Effecting the transition is the most critical and challenging aspect of the job. Firstly, the current deteriorating state of the upland resources makes the job extremely urgen but due to the degraded state of the uplands, the alternative options are limited. Secondly, the gestation period of the desirable production option is long term while the farmer's needs are immediate and thirdly, the recommended option must not only be economically viable but must have the added feature of being able to immediately contain the resource degradation process. Lastly, the option must pass the farmer's sets of criteria which varies from situation to situation and which we still need to define. This situation calls for innovativeness and revolutionary ideas and developing the appropriate methodology is to steer the exploitative use of the upland resources towards rational and sustainable ways.[41]

Dar[42] stressed that the more specific research needs along the broad objective of fostering sustainability of the uplands are as follows:

1. Development of multipurpose perennials preferably leguminous species for hedgerows;

---

[41] Ibid.

[42] Ibid.

2. Food crops establishment and production schemes involving minimum tillage;

3. Integration of livestock into the production systems;

4. Breeding of varieties suitable to specific conditions of the uplands such as tolerance to acidity; and

5. Development of approaches to disseminate the technologies.

The foregoing discussions on the desirable upland farming technologies and the subsequently suggested areas of research needs towards fostering the sustainability of the uplands by the Bureau of Agricultural Research (BAR), clearly suggests the compatibility of the interest and objectives of the extension program evolved from this present study with the goals and objectives of the Department of Agriculture.

Agustin[43] conducted a study which evolved a vocational education program for the Bangaw Boys of

---

[43]Agustin, Emeliana R., A Proposed Vocational Education Program for the Bangaw Boys of Tacloban City, 1980 A Doctoral Dissertation, Divine Word University, Tacloban City.

Tacloban City. She investigated the socio-economic, educational, and psychological needs of the Bangaw Boys of Tacloban City and on the basis of which she came up with a vocational education program for the development of this particular group of manpower resource which would otherwise become a menace to society if not profitably developed.

The significant findings of her study were the following: (1) the need of the Bangaw Boys to belong to a family, to love and be loved and to care and to be cared for by parents, to be with brothers and sisters, to be within the social circle of happy home and family, (2) the desires of the Bangaw Boys to be helped by society, by the government and other people, (3) the desire of the Bangaw Boys to obtain an education with the help of others which will enable them to live better social and economic lives.

On the basis of the foregoing findings, a six-year "earn while you learn", "learn in order to live and earn" or an academic vocational oriented living and learning program designed to approximate if not equal the existing 6-year conventional elementary education was evolve. However, unlike the conventional 6-year elementary education program, the proposed program is a live-in type

of learning, a kind of income generating project where the target clientele are both the producers and the consumers. The children learn the fundamentals of elementary education and at the same time generate income for their own subsistence. It is a special intervention program aimed at freeing the Bangaw Boys from their present state of depression, deprivation and undeserviced. It is an intervention program aimed at redirecting manpower resources into socially desirable and economically productive individuals.

In like manner, Jadloc[44] conducted a study designed to evolve an institutional model of a community extension program for the Leyte State College with a Junior College and a non-formal education alternative as components. The bases for the development of said model were an analysis of the socio-economic conditions of Basey, the service area for which the proposed model is intended; a feasibility study for a sheltered workshop on mat weaving and embroidery; and the contribution from the support structures of the government for integrated human

---

[44]Jadloc, Jovita C., An Institutional Model of A Community Extension Program for the Leyte State College, 1981, A Doctoral Dissertation, Leyte State College, Tacloban City.

development in Region VIII. The study has evolved a ready-made scheme of a community extension program which is innovative, practical and economical in terms of human and material resources. Such a scheme is necessary to strengthen the community extension service function which is a fundamental requirement for the college. Secondly, it was intended to help the "poor achievers" who are socially deprived of the benefits of higher education due to the economic instability of their parents; and the out of school youths and adults in the service community to develop gainful skills in cooperative endeavor in a sheltered workshop. Furthermore, it might well enable the clients to achieve a general well-being and an improved quality of life. Reduced unemployment and revenues from the projects on its fifth year of operation are the socio-economic benefits that the town of Basey may get out of this program.

The service coverage of the program's initial operation was limited to 50 students and 30 out of school youths and adults in the town of Basey.

Jadloc finally concluded that the proposed institutional model of community extension program for the Leyte State College is relevant to the regional and national

development goals and promises a number of socio-economic benefits which can surely contribute to human development in the region.[45]

De Guzman conducted another related study entitled "The Barrio Association as an Institutional Link Between Farmers and Service Agencies."[46] The study revealed that the formation of farmer's association was basically influenced by mutually shared problems/needs among people. Through the barrio association, the members were able to undertake a number of socio-economic projects such as poultry, swine, ducks, beef cattle, hand tractors, irrigation pumps and Masagana 99. The Barrio Association served as an institutional link between the members and service agencies of the government. The members enjoyed a number of services such as technical assistance, extension, service from suppliers of production inputs, credit and marketing. It provided the members an exercise in formal organization and self-government, served as a training ground for the development of local leaders as

---

[45]Ibid, p. 135

[46]De Guzman, Pablo L., "The Barrio Association as an Institutional Link Between Farmers and Service Agencies.", U.P. Los Baños College, Laguna, June, 1980.

well as a facility for undertaking effective and continuous education.

The study revealed the weak points of the barrio association that need some serious consideration so as not to imperil the viability of the organization. These are as follows: (a) lack of dedicated leaders, 9b) lack of market and, (c) failure of members to abide by the policies of the association.

Finally, the barrio association brought about some socio-economic impact on the members and the community, among others; increased farm productivity, acquisition of household goods, acquisition of farm equipment, increased social coherence, enhanced cooperative actions, discipline and prestige, and developed technical competence of members. On the community, the Barrio Association provided employment opportunities among the constituents, helped improve the irrigation and drainage facilities and brought dignity and harmony among different groups in the community.

Another study which guided the researcher in developing and formulating the model of extension program was conducted in Camarines Sur. The findings showed that farmers with high level of perception of agricultural credit had greater propensity to assume risks from credit

and were rational in their decisions to obtain and use agricultural credit. Practically all of the agricultural loans obtained were used for productive purposes on rice, corn and livestock/poultry enterprises. Only a small amount was diverted for other purposes. Most of the respondents obtained their loans from institutional financial sources like the Rural Banks, Development Banks of the Philippines, etc. Only very few obtained from other sources like landlords, parents, and other private money lenders.

With proper technical guidance and support, agricultural credit could be an essential instrument for countryside development to improve the standard of living of the rural poor.[47]

Elman conducted another related study entitled "Attitude of Cooperators Toward a Community Development Program in a Philippine Rural Village."[48]

The respondents of his study consisted of 42 cooperators of the REACH Program and 47 non-cooperators

---

[47]Dacanay, Eduardo A., "Perception and Utilization of Agricultural Credit in Camarines Sur," U.P. Los Baños College, Laguna, November, 1979.

[48]Elman, Nicolas R., "Attitude of Cooperators Toward A Community Development Program in a Philippine Rural Village," U.P. Los Baños College, Laguna, February, 1980.

who were residing in barangay Magsaysay at the time the study was conducted.

The data were gathered through personal interview with the use of structured questionnaires.

Of the nine variables describing the socio-economic characteristics of the cooperators, only the level of education was found related to their attitudes toward the development program. The Chi-square Test showed highly-significant relationship at .01 level.

The findings showed that the non-cooperators respondents were fully aware of the existence of the facilities and services of the REACH Program.

Another study on human resource development was conducted by Redoble[49] in Region IX Muslims. The findings disclosed that more of the respondents had intermediate and secondary levels of educational attainment. Before the training, 43% of the respondents were jobless. After the training, 19% were immediately employed either by the government or private agencies, and 54% ventured on self-employment enterprises with an average income of P3,783.02. However, 26% were still unemployed.

---

[49]Redoble, Tomasito G., "The Human Resource Development Program of the National Manpower and Youth Council for Muslims of Region IX," Dissertation, U.P. Los Baños College, Laguna, April, 1980.

The study further revealed that out of the 17 skill crafts offered by the three centers, automotive had more enrolees followed by the garments. The married respondents would like their children to earn a college degree while some would settle for a two-year technical vocational education.

The program as a whole was relevant to their interest and needs. Out-of-school yourths and adults worked as apprentice while the rest observed the activities of the respondents in the shop.

Sex, age, level of educational attainment and initial capital played very significant roles in the income levels of the respondents. Male respondents earned more than the females; the older the respondents the lesser was the income capability and the higher the level of educational attainment the higher the income; and the higher the initial capital the higher was the gross income of the respondents.

The weak areas of the program were the absence of classification of the grade level of the respondents; inadequacy of small handtools, engines, sewing machines, and materials for demonstration purposes, exclusion of cooperatives and banking procedures, rules and regulations, in that order.

The strong areas of the program, in the order of importance, were the offering of skill crafts relevant to the needs of the people in the area; and qualification of the trainors and strategic location of the centers.

Babalcon's[50] proposed educational program for the "Haplit Boys" of Paranas had a similar orientation of objectives as the present study, in having a sympathetic and development concern for a particular group of helpless and hopeless people in our society. His study focused on the socio-economic, educational and psychological needs of the "Haplit Boys" of Paranas.

The significant findings of the study were:

1. The greater number of "Haplit Boys" originated from Lipata and Poblacion with eight "Haplit Boys" each. This is an indication that the more urbanized the area is, the more complex the life becomes for the families. In less urbanized areas, nature is still generous, so it is easier to survive with nature's graces within the environment.

2. Most of the "Haplit Boys" reside with their relatives because these boys came from broken homes and

---

[50]Babalcon, Bienvinido O., An Educational Program for "Haplit Boys" of Paranas, Samar: A Proposed Model, Unpublished Thesis, SSPC, Catbalogan, Samar.

abandoned families, so if they cannot enjoy the benefit of love and care of parents, the next thing they would do is to look for a relative or a friend where to stay as foster home.

3. Since most of the "Haplit Boy's" parents are under educated, they find difficulty in seeking a job in the government or private entities. The least they can do in order to survive is to engage in self-employment like pedling, simple craftsmanship, "hornal", and the like to earn their personal existence and survival, rather than stick to the maintenance of their families where they have more to feed, clothe and educate especially if his family is beyond endurance to maintain.

4. The foregoing conditions, coupled with indolence, ignorance and indifferent attitude of parents lead to the making of wayward children driven away from home and known as "Haplit Boys".

5. The educational program proposed in his study, therefore was a timely response to their needs and problems.

A foreign country study conducted by Saloko[51] on the

---

[51]Saloko, Mohammad S., The Role of Schooling and Extension in Rice Production and Income of Farmers in South Sulawesi, Indonesia. Master's Thesis, U.P. College, Los Baños, Laguna, October, 1979.

role of schooling and extension in rice production and income of farmers in South Sulawesi, Indonesia, gaved the researcher an insight into the vital role of extension programs in improving the productivity of farmers and increasing their income.

The findings of said study revealed that the farmers had an average age of 41 years farming experience of 22 years, and average schooling of 6 years. The cultivated land averaged 1.09 hectares. The average number of household members was 5, household schooling and extension (weighted) was 6.38 years, and the weighted mean for household extension contact was 2.58 times per year.

The marginal contribution of land and capital indicated a positive significant effect in increasing rice production. The size of land and fixed capital were significantly and positively related to increased rice production and income. The schooling of households and extension contacts indicated a positive effect on total income. The age of the operators was positively related to increased net farm earnings but not to the total income. The marginal contribution of extension was positive in increasing total income, but schooling only partially contributed to increased total income. Schooling and extension only partially complemented each

other in increasing rice production, net farm earnings and total income. The internal rates of return to investment in schooling and extension were found to be 0.01 percent and 120 percent, respectively.

Relationship with the Present Study

The constitutional mandate "to promote industrialization based on sound agricultural development and agrarian reform that make full and efficient use of human and natural resources" as well as the mission statement of the Department of Agriculture (DA) and the objectives of the Community Forestry Program (CFP) of the Department of Environment and Natural Resources (DENR) stipulated in its Administrative Order No. 123 are the sound bases of this study for evolving a model of extension program which envisions to mobilize underemployed farm labor resources and cultivate idle lands to maximize its productivity.

The conceptual literature on "full employment and full production" as well as on "unemployment and underemployment" provided the researcher an insight into the underlying causes of poverty among the transient farmers in San Jorge, Samar. In like manner, the conceptual literature on "models" of extension programs"

implemented in different colleges and universities in our country provided the logic and wisdom for the need to formulate a model of extension program of SNAS consequent to the present study.

It is only sad to think that the researcher did not find a study concerned with the welfare of the peasant transient farmers nor the utilization of idle cogonal lands in San Jorge.

However, this study is not utterly unique by itself. Related studies have been conducted in other provinces of the country as well as abroad. The assessment of hilly-land farming systems in the Philippines by Celestino and Elliot[52] in 1986 serves as the foundation and lay-out for indentifying upland farming conditions for research, such as the development of acceptable agro-forestry farming systems towards which the present study is directed, though with a narrow geographical locus. The study of Dar[53] on the indigenous crop production practices of the uplanders in the western side of Benguet province, in Northern Luzon is similar to the present study being concerned also with upland farming practices but somehow

---

[52]Celestino and Elliot, Ibid, p.45.

[53]Dar, William, Ibid, p.5

different in other respects. The previous study was interested in the indigenous but worth emulating crop production practices of the uplanders, while the present study is interested in innovations of the farming practices of the upland farmers in San Jorge.

Like the previous study of Jadloc[54], on the socio-economic conditions of Basey which evolved an extension program that provide a junior college and a non-formal education alternatives for non-passers of the NCEE and the out-of-school youths, the present study also investigated the socio-economic conditions of its clientele which likewise evolved an extension program not for youngsters but for a different group of beneficiaries -- the peasant transient farmers of San Jorge, Samar.

The present study is also similar to a previous study of De Guzman[55] on the Farmers Association as an institutional link between farmers and service agencies of the government in Los Baños, Laguna being also concerned with organizing Upland Farmers Associations to enhance their credibility for government assistance. However, unlike the previous study which is concerned with

---

[54]Jadloc, Jovita, Ibid, 1981

[55]De Guzman, Pablo L., Ibid, 1980

maintaining the viability of already existing Farmers Associations, the present study is concerned with initiating and mobilizing the peasant transient farmers to organize themselves into Farmers Cooperative Associations.

Like the previous study of Dacanay[56] on farmer's perceptions and utilization of agricultural credit in Camarines Sur, the present study is also concerned with obtaining benefits from government service agencies. However, unlike the previous study of Dacanay on members perceptions of an existing Farmers Association, the present study is concerned with investigating the attitudes of farmers towards membership of similar kind of association which is still to be organized.

Like the study of Elman[57] of the attitudes of cooperators towards a Community Development Program in a Philippine rural village (Brgy. Magsaysay) the present study is also concerned with the rural people, but while the previous study was concerned only with the factors that determines the kind of attitudes the beneficiaries have towards the development program, the present study is

---

[56]Dacanay, Eduardo, Ibid, 1979

[57]Elman, Nicolas, Ibid, 1980

concerned with how their labor efficiency may be maximized to exploit idle land resources in their immediate environment.

The previous study of Redoble[58] on the Human Resource Development Program of the National Manpower and Youth Council for the Muslims of Region IX, is similar to this present study being also concerned with maximizing human labor effectiveness. However, the present study differ from the previous in being concerned with how much assistance to provide for its beneficiaries considering its limited resources, while the previous study was concerned with evaluating the effectiveness of the assistance provided for its beneficiaries through the program.

The present study's concern for the long range profitability of agricultural crops is aligned with Saloko's[59] concern for rice production in South Solawesi, Indonesia, but somehow different for being interested in the perceptions of the farmers with regards to the

---

[58]Redoble, Tomasito, Ibid, 1980

[59]Saloko, Mahamad, Ibid, 1979

profitability of perennial crops vis-a-vis short-season crops, while the previous study was interested in knowing the difference between the internal rates of return to investment in schooling and investment in extension for improving the profitability of rice production.

Chapter 3

METHODS AND PROCEDURE

This chapter describes the research design, the research subjects, the sampling procedure, the research instrument, the validation of the instrument, the gathering of data and the treatment and statistical analysis of data.

The Research Design

The descriptive evaluative survey method of investigating and assessing the socio-economic conditions, farming practices, agricultural technology needs, economic aspirations, attitudes towards the cultivation and rehabilitation of idle cogonal lands, and planting of perennial crops of the transient farmers was used in this study.

The population subject of this study were the upland transient farmers having antiquated farming practices habitually transfering from one farming area to another leaving depleted cogonal lands behind.

The respondents of this study were all heads of households of said population doing much of the strenuous

work and management of the farm. Said respondents were chosen through systematic random sampling.

An interview guide written in the vernacular was mainly used as the instrument to gather the desired information and data from the respondents whose responses during the individual personal interview were crosschecked with personal observations of the researcher himself. Said inerview guide was first tried on ten farmers before it was actually used for this study to ascertain its suittability to the linguistic level of the target population.

The researcher personally went to the selected barangays to do the actual listing of the aforesaid heads of households of transient farmers and to conduct the randomization process to select the desired percentage of the population which constituted the respondents in this study.

The information and data collected through the individual interview and personal observation of the researcher were subjected to statistical treatment and interpretations using frequency counts, averages percentages and weighted means as well as analysis of variance and Scheffe's test. On the basis of which, a model of agricultural extension program was evolved in response to the problems, needs and aspirations of the target population -

the peasant transient farmers of the hilly lands.

The Subjects/Respondents

The subjects of this study were the peasant transient farmers of San Jorge, Samar. They are the traditional farmers who transfer habitually from one farming area to another every two or three years of successive planting of short-season crops when they see that the land is depleted causing continued degradation of the uplands.

The respondents in this study consisted ten percent of the total number of heads of households of transient farmers from each of the ten selected barangays of San Jorge. Said respondents were all men doing much of the strenuous work in the farm. This is to obtain a more or less accurate information of their attitudes towards cultivation of land, planting of perennial plants and other farm practices as well as farming needs.

The Sampling Procedure

The stratified random sampling was used in selecting the samples of this study.

Stratified in the sense that there were three subsamples or levels of selections made: first, a sample among barangays in the municipality; second, a sample among all households of transient farmers in each of the

selected barangays; and third, a sample among individual transient farmers constituting each of the selected households/families.

Good said that in a systematic sampling, every "nth" name from a list, or area from a map, etc., may be used as sample.[60]

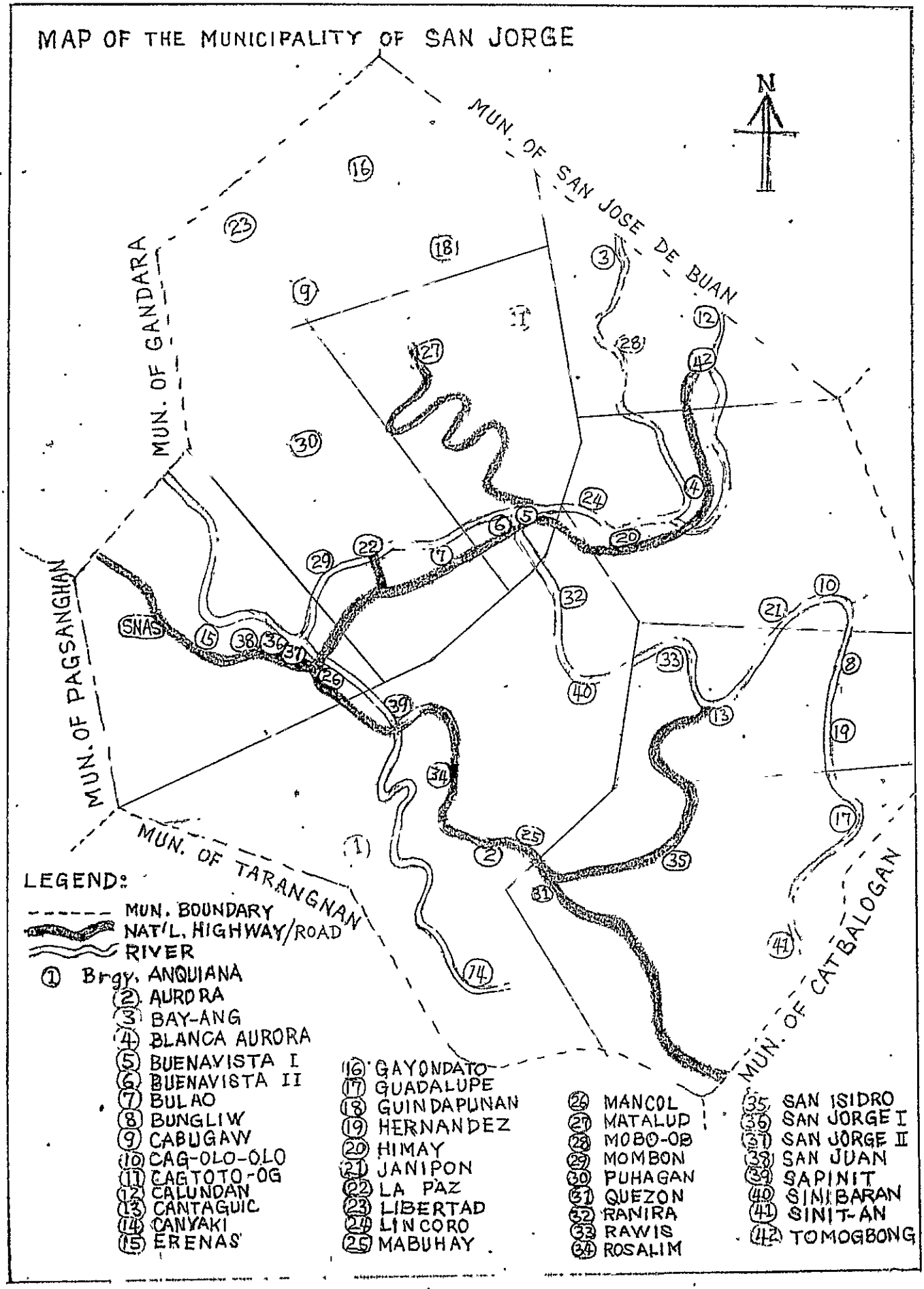
In this study, the entire municipality of San Jorge was subdivided into ten geographical locations and every four neighboring barangays constituting each geographical location was represented by one barangay chosen through random sampling among the four barangays, at a time, so that ten of the 42 barangays of said municipality were selected and included in the sample (see map on page 63). Randomized selection in the sense that the barangay representing every group of four barangays was drawn from four reshuffled slips of papers each containing a name of barangay.

The second level sub-sample consisted ten percent of the total number of households of transient farmers in each selected barangay likewise obtained through a random sampling procedure. Each household of transient farmers

---

[60]Good, Carter V. and Scates, Douglas E., Methods of Research: Educational, Psychological, Sociological, Appleton-Century-Crofts, Inc., New York, 1954, p. 601.

MAP OF THE MUNICIPALITY OF SAN JORGE



LEGEND:

- MUN. BOUNDARY
- NAT'L. HIGHWAY/ROAD
- RIVER

① Brgy. ANQUIANA
② AURORA
③ BAY-ANG
④ BLANCA AURORA
⑤ BUENAVISTA I
⑥ BUENAVISTA II
⑦ BULAO
⑧ BUNGLIW
⑨ CABUGAW
⑩ CAG-OLO-OLO
⑪ CAGTOTO-OG
⑫ CALUNDAN
⑬ CANTAGUIC
⑭ CANYAKI
⑮ ERENAS
⑯ GAYONDATO
⑰ GUADALUPE
⑱ GUINDAPUNAN
⑲ HERNANDEZ
⑳ HIMAY
㉑ JANIPON
㉒ LA PAZ
㉓ LIBERTAD
㉔ LINCORO
㉕ MABUHAY
㉖ MANCOL
㉗ MATALUD
㉘ MOBO-OB
㉙ MOMBON
㉚ PUHAGAN
㉛ QUEZON
㉜ RANIRA
㉝ RAWIS
㉞ ROSALIM
㉟ SAN ISIDRO
㊱ SAN JORGE I
㊲ SAN JORGE II
㊳ SAN JUAN
㊴ SAPINIT
㊵ SINIBARAN
㊶ SINIT-AN
㊷ TOMOGBONG

was represented only by the household-head who does the strenuous work in the farm rather than by all the individual farmers constituting the household. "This is to improve the accuracy of the sample."[61] Randomized selection also, in the sense that the names of all representatives of transient farmer households were each written on a small slip of paper, rolled and thoroughly reshuffled in a container to give everyone of them equal probable chance of being included in the ten percent sub-sample which were drawn randomly from the entire number of names in said container. If there were 100 slips of papers in the container, only 10 were drawn as sample; if there were 110 slips of papers, only 11 were drawn as sample, etc.

The Research Instrument

The researcher used only one set of interview guide to gather the baseline information and data for this study. The interview-guide was expressed in the vernacular to suit the linguistic level of the respondents who had little or no schooling. The instrument consisted of two parts: Part I asked questions to elicit information concerning the profile of respondents with respect to

---

[61]Good and Scates, op. cit., p. 601.

sex, age, education, family size, home address, farming experience, monthly income, assets, liabilities, and net worth. Part II asked questions to elicit information and data concerning the transient farmers' farming practices, agriculture technology needs, economic aspirations, perceptions of the comparative profitability of perennial crops, short-season crops and intercropping of both perennial and short-season crops, attitudes towards planting of perennial agricultural crops, cultivation and rehabilitation of idle cogonal lands, and membership with farmers' cooperatives. The said interview-guide was tested on ten farmers along the road before it was actually used in the gathering of data from the sample population.

Validation of the Instrument

The research instrument was first written in the English language by the researcher and submitted to the panel for approval. Its translation to the vernacular was then suggested by the panel to suit the linguistic level of the respondents who had little or no schooling. The instrument was then tried on ten farmers along the road to ascertain its understandability by the intended respondents and its linguistic level was then found clear and accurate.

Gathering of Data

The techniques employed in gathering the desired data and information were: (1) individual interview, (2) informal group interview, and (3) personal observation of the researcher himself.

The researcher personally went to the selected barangays and sought the assistance of the Barangay Captain or the Public School Teacher in calling for the transient-farmer-respondents from their respective domicile or farms to the Barangay Center. A letter of introduction by the Municipal Mayor of San Jorge was sought by the researcher before he actually conducted the survey and interview of the respondents. The individual and group interview questions were asked in the vernacular language by the researcher himself after a thorough explanation of the purposes of the survey and how the data and information were to be used.

The researcher spent a day or two in each barangay to interview each of the desired number of respondents in this study.

Treatment and Analysis of Data

The data and information collected through the survey were subjected to statistical treatment using frequency

counts and percentages to determine the transient farmers profile with respect to sex, age, education, family size, farming experience, monthly income, assets, liabilities and net worth, farming practices and agriculture technology needs. Their attitudes towards perennial agricultural crops, cultivation and rehabilitation of idle cogonal lands and membership with farmers cooperatives were determined using frequency counts, averages and weighted means.

The same statistical treatment was used to determine the percentage of respondents identified with a particular variable. The formula used in finding the percentage is:

$$P = \frac{f}{N} \times 100\%$$

where: f - number of respondents identified with a certain variable

N - total number of respondents

To test the null hypothesis which claimed that there are no significant differences in the profitabiliy of (1) perennial crops, (2) short-season crops and (3) intercropping of both perennial and short-season crops as perceived by the transient farmers themselves, the one-way analysis of variance was used.

The formula of the ANOVA is shown below:

SV	df	SS	MS	F Comp	$F_{.05}$
Between	k-1	$\Sigma \frac{\text{group total}^2}{r} - C$	$\frac{\text{SS Between}}{k-1}$	$\frac{\text{MS Between}}{\text{MS Within}}$	
Within	N-k	SS total - SS Bet	$\frac{\text{SS Within}}{N-k}$	-	
Total	N-1	$\Sigma X^2 - C$	-	-	

Where: k - the no. of groups compared

N - total no. of cases

r - no. of cases per group

C - correction factor = $\frac{(\Sigma X)^2}{N}$

ΣX^2 - the sum of the individual squares of the observation

When the computed F-value using the ANOVA proved that there were significant differences among group means, the null hypothesis herein pursued was rejected and the scheffe's test, on the other hand was utilized in determining significant differences between the different means. The formula for the scheffe's F-values is:

$$F_{sche} = \frac{\bar{x}_A - \bar{x}_B}{\frac{MSE\ (N_A + N_B)}{N_A\ N_B}}$$

Where $\bar{x}_A$ - the mean for group A

$\bar{x}_B$ - the mean for group B

MSE - the mean square for Error

N_A - the no. of cases for group A

N_B - the no. of cases for group B

The computed F_{sche} value was compared with the critical F_{sche} value for significance at $\alpha = .05$, where:

$$\text{Critical } F_{sche} = \sqrt{K - 1\ F_{.05,\ df_1,\ df_2}}$$

Where K - no. of groups

$F_{.05,\ df_1,\ df_2}$ - the critical F value

Chapter 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the data obtained through a baseline survey of the transient farmers; socio-economic conditions with respect to sex, age, education, family size, farming experience, monthly income, net worth, farming practices, economic aspirations, agriculture technology needs, perceptions od the comparative profitability of perennial and short-season crops, attitudes towards the cultivation and rehabilitation of idle cogonal lands, and attitudes towards membership with Farmers Cooperatives.

Profile of Transient Farmers

Table 1 presents the transient farmers' profile with respect to age, and sex as of the survey time. Majority, 28 or 28% of them were at age bracket 51-60; 25 or 25% of them were at age group 41-50; 21 or 21% were at age group 31-40; 17 or 17% of them were at age group 21-30; 8 or 8% were at age group 61-70 and only 1 was at 71-80 age group.

All the respondents in the study were men and the female was never represented because strenuous work in the farm is customarily done by men, hence information con-

Table 1

Profile of Transien Farmers According to Age and Sex

Age Bracket	Male	Female	Percent (%)
21 - 30	17	0	17%
31 - 40	21	0	21%
41 - 50	25	0	25%
51 - 60	28	0	28%
61 - 70	8	0	8%
71 - 80	1	0	1%
Total	100	0	100%

cerning attitudes towards cultivation of cogonal lands, planting of perennial crops and other farm practices as well as farming needs maybe given by men accurately rather then by women.

Table 2 presents the educational attainment of the transient farmers. Most of them, 75 or 75% had elementary school education; 13 or 13% have high school education; only 1 have reached college and 11 or 1% have not gone to school. From these data, it can be inferred that the transient farmers' inability to profit from technological advances in farming is caused by their low levels of

Table 2

Profile of Transient Farmers According to Educational Qualification

Educational Attainment	Number of Transient Farmers	Percent (%)
No Schooling	11	11%
Elementary	75	75%
High School	13	13%
College	1	1%
T o t a l	100	100%

education. They cannot come up with policy requirements of the government service agencies. Hence, agricultural development program funds and services cannot readily reach them.

Table 3 presents the family size of the transient farmers. Twenty eight or 28% of them have 5 members; 19 families have 3 members; 17 families have 4 members; 13 families have 2 members; 12 families have 6 members; 6 families have 7 members; 2 families have 8 members; another 2 families have 10 members, and only 1 family have 9 members. Their family members ranged from 2 to 10 with an average of 5 members.

Table 3

Profile of Transient Farmers with Respect to Family Size

Size of Family	Number of Transient Farmers	Percent (%)
1	0	0
2	13	13%
3	19	19%
4	17	17%
5	28	28%
6	12	12%
7	6	6%
8	2	2%
9	1	1%
10	2	2%
T o t a l	100	100%

The average size of their families is not far beyond the desired number but rather, just the ideal for a farm family living. In a study of Farm Management, Land Use

and Tenancy in the Philippines, Oppenfeld[62] et. al. reported that family members other than the operator supplied a potential labor force of 16.3 months. Less

Table 4

Profile of Transient Farmers with Respect to Farming Experience

Farming Experience in Years	Number of Transient Farmers	Percent (%)
1 - 5	10	10%
6 - 10	10	10%
11 - 15	11	11%
16 - 20	14	14%
21 - 25	10	10%
26 - 30	20	20%
31 - 35	10	10%
36 - 40	11	11%
41 - 45	4	4%
T o t a l	100	100%

[62]Oppenfeld, Horst and Judith Von; Sta. Iglesia, . C. and Sandoval, R.P., Farm Management, Land Use and Tenancy in the Philippines, College of Agriculture and Central Experiment Station, U.P. College, Laguna, 1957, p. 59.

than one fourth of these found productive labor on the farm, one fourth had opportunities for off-farm labor, while more than half of the potential labor force remained idle.

Table 4 presents the length of farming experience of the transient famrers in years. It range from 3 to 43 years with an average of 22.27 years. Twenty or 20% of them have been farming for more than 26 years; 10 or 10% of them have been farming for more than 31 years; 11 or 11% of them have been farming for more than 36 years; 4 or 4% of them have been farming for more than 41 years; 10 or 10% of them have been farming for more than 25 years; 14 or 14% of them have been farming for more than 16 years and 11 or 11% of them have been farming for more than 11 years.

Despite this long years of farming experience, not even a few of them have developed and established a productive farm or perennial plant crops. This can be the reason for their low levels of income which range only from P400.00 to P3,000.00 monthly with an average of as low as P1,036.00 only per month.

Table 5

Profile of Transient Farmers with Respect to Family Income

Family Income Per Month (P)	Number of Transient Farmers	Percent (%)
Below P1,000.00	59	59%
P1,000 - P1,999.00	35	35%
P2,000 - P2,999.00	4	4%
P3,000 - P3,999.00	1	1%
P4,000 - P4,999.00	1	1%
T o t a l	100	100%

Table 5 presents the profile of transient farmers with respect to family income. As shown on the table, 59 or 59% are earning less than P1,000.00 per month. Hence, the urgent need for an institutionalized rural extension program to alleviate the socio-economic conditions of these transient farmers in San Jorge, Samar.

Table 6

Profile of Transient Farmers with Respect to Networth

Networth Bracket	Number of Transient Farmers	Percent (%)
below P 5,000.00	26	26%
P5,000 - P 9,999.00	46	46%
P10,000 - P14,999.00	6	6%
P15,000 - P19,999.00	8	8%
P20,000 - P24,999.00	7	7%
P25,000 - P34,999.00	2	2%
P35,000 - P39,999.00	2	2%
P40,000 - P44,999.00	1	1%
P45,000 - P49,999.00	1	1%
P50,000 - P54,999.00	0	0
P55,000 - P59,999.00	0	0
P60,000 - P64,999.00	0	0
P65,000 - P69,999.00	1	%
T o t a l	100	100%

Table 6 presents the farming business net worth of the transient farmers at the time of the survey. It ranged from P1,180.00 to P67,700.00 or an average of P10,219.00. Only 5 or 5% of them who owns work animals have a networth over P30,000.00. Forty six or 46% have a net worth below P10,000.00 but over P5,000.00; 26 or 26% have a net worth even below P5,000.00. This means that majority of them have very little loan credibility and they have nothing to lean back on in case of illness.

Farming Practices of the Transient Farmers

Table 7 presents the physical features of land perceived by transient farmers as good for agricultural crops production. Eighty-eight or 88% of them said that an area where trees have grown big, with no cogon grass, level/plain, with deep soil is good and 12 or 12% of them said that in addition to the above physical features of land, an area must be rich in organic matter and near the source of water in order to be good for plant crops, production.

Table 7

Features of Land Desired for Farming by the Transient Farmers

Desired Physical Features of Land for Crops Production by Transient Farmers	Number of Transient Farmers	Percent (%)
1. Area where trees have grown big, with no cogon grass, level/plain, deep soil.	88	88%
2. Area where trees have grown big, with no cogon grass, level/plain, deep soil, rich in organic matter and near the water supply.	12	12%
T o t a l	100	100%

It can be inferred from the above data that the transient farmers' criteria for selecting the area of land for farming is more traditional than scientific.

Table 8 presents the transient farmers' procedure in preparing the land for planting.

Procedure "A" is being practiced by only 16 or 16% of the transient farmer-respondents usually on cogonal land areas. It begins with caingin or clearing, followed by burning when dry, gathering of debris, plowing twice each followed by harrowing, and the last is farrowing after which the field is ready for planting any crop.

Table 8

Procedure of Land Preparation by Transient Farmers

Ordinal Sequence	Alternative Temporal Order of Job Sequence	
	Procedure "A"	Procedure "B"
1st Job	Kaingin (Clearing)	Kaingin (Clearing)
2nd Job	Burning the caingin	Burning the caingin
3rd Job	Gathering of debris	Gathering of debris
4th Job	1st Plowing	Weeding of seed weeds
5th Job	1st Harrowing	Planting of any crop
6th Job	2nd Plowing .	Weeding beneath plants
7th Job	2nd Harrowing	Weeding beneath plants
8th Job	Farrowing	Weeding beneath plants
9th Job	Planting any crop	Weeding beneath plants
Number of Farmer Adoptors:	16	84

Procedure "B" is practiced by 84 or 84% of the transient farmer-respondents usually on land areas which are still free from cogon grasses. It begins with caingin or clearing, followed by burning when dry (as in procedure "A") followed by gathering of debris, then weeding or "saksak", after which, the land is ready for planting the desired crop. The foregoing data reveals that only few,

16 or 16% of the transient farmers are practicing the right procedure of land preparation. This can be attributed to ignorance of modern farming technologies and lack of farm mechanization facilities, their expressed agriculture technology need, shown on Table 11, page 84.

Table 9

Planting Succession Order of Different Crops

Ordinal Sequence	Varied Succession Order of Different Crops			
	Order "A"	Order "B"	Order "C"	Order "D"
1st Crop	Corn and Pineapple	Upland rice and Pineapple	Upland rice and bananas	Corn and bananas
2nd Crop	Camote	Corn	Corn and Mongos	Rice and Tomatoes
3rd Crop	Peanuts	Camote	Camote and Cassava	Camote and Cassava
4th Crop	Mongos	Rice	Gabi and Peanuts	Peanuts and Mongos
5th Crop	Gabi	Peanuts	Upland Rice	Cassava
No. of Farmer-	21	29	34	16
Percent	21%	29%	34%	16%

Table 9, presents the planting succession order of different crops by the the transient farmers, planting succession order "A" is preferred by 21 or 21% of the transient farmers, strarting with corn simultaneous with pineapple, followed by camote, peanuts, mongos and gabi.

Planting succession order "B" begins with upland rice simultaneous with pineapple and bananas followed by corn, camote then back with upland rice, then peanuts which is preferred by 29 or 29% of the transient farmers.

Planting succession order "C", begins with upland rice simultaneous with bananas followed by corn and mongos, camote and cassava, followed by gabi and peanuts, then back with rice. This is practiced by 34 or 34% of the transient farmers.

Planting succession order "D", begins with corn and bananas followed with rice and tomatoes, camote and cassava followed by peanuts and mongo then back with ccassava. This is being practiced by 16 or 16% of the respondents.

The foregoing data on the planting succession order of different crops preferred by peasant transient farmers shows a preponderance on the planting of short-season crops and alarming neglect of the planting of perennial plant crops and tree species which is very much needed in

Table 10

Reasons for Transfering from One Farming Area to Another

No.	Reasons Presented by Transient Farmers	Reasons	No. of Farmers	Percent
1	Plant crops no longer grow well on land repeatedly planted with short-season crops.	1	100	100%
2	To avoid the tedious job of weeding out cogon grasses.	1-2	96	96%
3	To find areas where trees have grown big and free from cogon.	1-3	38	38%
4	To be able to cultivate a wider area and produce more crops.	1-4	34	34%

the rehabilitation of our forest resources and dwindling wild life, hence, enemical to the development program thrust of our country.

When the transient farmers were asked why they did not establish thenselves permanently in one farming area, all of them, 100 or 100% reasoned that agricultueal crops no longer grow well on land areas repeatedly planted with short-season crops. Ninety-six or 96% of them added a 2nd reason, that is, to avoid the tedious job of weeding out cogon grasses. Others, 38 or 38% of them added a 3rd reason, that is to find areas where trees have grown big

and free from cogon, and 34 or 34% of them added a 4th reason that is to look for a land area easier to cultivate and producce more as shown in Table 10.

The foregoing data reveals that the transient farmers' main reason for transferring from one farming area to another is to produce more crops believing that they could only realize this in areas without cogon grass, where trees have grown big -- the forest areas.

Agricultural Technology Needs of Transient Farmers

The expressed agriculture technology needs of the transient farmers consists of: (1) land cultivation tools, implements and equipment such as plows, harrows, tractors, work animals etc., (2) planting materials of fruit trees and vegetable crops, (3) money for hired labor (4) protection against thieves terrorists and robbers, (5) technological knowledge and farming skills, and (6) agriculture technician, as shown in Table 11. Ninety one or 91% of the 100 transient farmer-respondents signified their need for No. 1 of the above tools and equipment, 87 or 87% of them signified their need for No's. 1 and 2 above; 76 or 76% of said respondents signified their need for No's. 1, 2, and 3 above; 37 or 37% of the same respondents, signified their need for Nos. 1, 2,

Table 11

Agriculture Technology Needs of Transient Farmers

No.	Agriculture Technology Needs	No. of Needs	No. of Farmers	Percent
1	Land cultivation tools, implements and equipment (plows, harrows, tractors, work animals chemical sprays).	1	91	91%
2	Planting materials of fruit trees and vegetable crops.	1-2	87	87%
3	Money for hired labor	1-3	76	76%
4	Protection against thieves, terrorists, and robbers.	1-4	37	37%
5	Technological knowledge and farming skills.	1-5	21	21%
6	Agriculture technicians	1-6	13	13%

3, and 4 above; 21 or 21% of the same respondents, signified their need for Nos. 1, 2, 3, 4 and 5 above and only 13 or 13% of the same respondents signified their need for Nos. 1, 2, 3, 4, 5 and 6 of the above agriculture technology needs.

Economic Aspirations of the Transient Farmers

Each of the 100 transient farmer-respondents expressed a number of economic aspirations: 1) To have a regular bountiful harvest of sttaple grains, vegetables,

Table 12

Economic Aspirations of Transient Farmers

No.	Reasons Presented by Transient Farmers	Reasons	No. of Farmers	Percent
1	To have a regular bountiful harvest of staple grains, vegetables, root crops, and fruits	1	100	100%
2	To live in a durable and beautiful house of their own.	1-2	89	89%
3	To own a piece of low land rice field and established fruit tree farm	1-3	71	71%
4	High levels of education for their children.	1-4	27	27%

root crops and fruit trees which would be a means for having a steady high income per month. (2) To live in a durable and beautiful house of their own, (3) To own a piece of low land rice field and established fruit tree farm, and (4) High levels of education for their children, (Table 12). All or 100% of them presented aspiration No. 1, 89 or 89% of them presented aspirations 1-2, 71 or 71% of them presented aspirations 1-3 and 27 or 27% of them presented aspiration Nos 1-4 of the four aspirations.

From the above data, it can be inferred that these transient farmers, though very poor are a great potential

for economic growth and development. This human labor potential, if properly managed and provided with the other production components, can go a long way towards countryside development.

Attitudes of Transient Farmers Towards Cultivation and Rehabilitation of Cogonal Lands, Planting of Perennials, and Membership with Cooperatives

Table 13

Transient Farmers Attitude Towards Perennial Agricultural Crops

No.	Transient Farmers' Reasons for not Planting Perennial Plant Crops	No. of Reasons	No. of Transient-Farmers	Percent
1	Perennial plants usually get burned with grass fire during dry months before they are grown produtive.	1	69	69%
2	Perennial plants yields lesser production income than short-season crops.	1-2	60	60%
3	Because of the family's immediate need for food which is a priority over the planting of perennials	1-3	31	31%
4	Our time and effort is barely enough to earn the present food need of our families.	1-4	30	30%

The reasons of the transient farmers for not planting perennials are clearly shown on Table 13. Each of the respondents presented not only one but several reasons. Sixty nine or 69% of the 100 respondentts did not plant perennials because their farming areas get burned during dry months and their efforts in planting perennials is wasted. Sixty or 60% of the same respondents added a second reason that is, perennial crops yields lesser production income than short-season crops. Thirty-one or 31% of said respondents added a third reason, that is, because of their immediate need for food which is a priority over the planting of perennials. Thirty or 30% of the same respondents, added a 4th reason, that is, their effort and time are barely enough for earning the present need for food of their families, hence, they have no more time and interest for planting perennials that need long waiting and sacrifice.

Table 14

Transient Farmers' Suggestions to Utilize Idle Cogonal Lands

Alternative Ways of Utilizing Cogonal Lands Suggested by the Transient Farmers	No. of Respondents	Percent
1. Plow and cultivate these cogonal lands and plant fruit trees and other perennials	54	54%
2. Leave these cogonal lands idle until trees are grown big by natural means	41	41%
3. Raise ruminants to grease on the cogon grass lands.	5	5%

Table 14 presents the transient farmers' options for utilizing idle cogonal lands. Fifty four or 54% of the 100 farmer-respondents suggested plowing and cultivating cogonal land and planting fruit trees and other perennials. Others 41 or 41% of them suggested leaving these cogonal lands idle until trees are grown big by nature, while the remaining 5 or 5% of the 100 farmer respondents suggested raising ruminants to grease on these cogon grass.

This means that many of them 54% have the right attitude towards utilizing idle cogonal lands. Only 41% of the transient farmers have a traditional laissezfaire

Table 15

Transient Farmers' Reasons for Failing to Utilize Idle Cogonal Lands

No.	Reasons Presented	Reasons	No. of Farmers	Percent
1.	Lack of appropriate farm tools, implements and equipment for land cultivation.	1-5	39	39%
2.	Frequent occurence of grass fire (burning) which wipe out plants.	1-4	24	24%
3.	Cultivation of cogonal land is difficult and expensive.	1-3	20	20%
4.	Lack of money for hired labor.	1-2	15	15%
5.	Inavailability of suitable planting materials.	1	2	2%

thinking on the use of cogonal lands. However, this right attitude could not be demonstrated in the absence or lack of farm mechanization facilities and other material inputs as shown in Table 15.

Table 15 presents the transient farmers' reasons for failing to make use of these idle cogonal lands. Thirty-nine or 39% of the 100 respondents gave reasons 1-5. That is, (1) lack of appropriate farm tools, implements and equipment for land cultivation, (2) frequent occurrence of grass fire (burning) which wipe out plants, (3) cultivation of cogonal land is difficult and expensive, (4) lack of money for hired labor and (5) inavailability of suitable planting materials. Twenty four or 24% of the same respondents gave Nos. 1-4 of the foregoing reasons; 20 or 20% of the respondents gave Nos. 1-3 of the foregoing reasons; 15 or 15% of the respondents gave Nos. 1 and 2 of the foregoing reasons and only 2 or 2% of the respondents gave No. 1 of the foregoing reasons.

It can be inferred from the foregoing data that lack of the appropriate land cultivation facilities, frequent grass fire burning and expensive cultivation discouraged or prevented the transient farmers from utilizing this cogonal lands for agricultural crops production.

Table 16

Transient Farmers Attitude Towards Membership with Farmers Cooperative

Reasons Presented Behind their Willingness to Join Farmers Cooperative	No. of Res-pon-dents	Transient-Farmers Reasons for Dis-liking Membership with Cooperative	No. of Res-pon-dents
Membership with Farmers Cooperative will qualify me for an agricultural production loan.	21	Members may not have the same interest and may not exert the same effort for the good of the organization.	55
My membership with the cooperative will enhance my credibi-lity as beneficiary of other government assistance.	24	They feel lazy working for something not entirely owned.	25
		All the farmers cooperatives they have known were failures.	11
		They don't know the importance of cooperatives.	11
T o t a l	45	T o t a l	55

Table 16 presents the transient farmers' attitudes towards membership with farmers cooperatives. Only 45 or 45% of the 100 respondents signified willingness to join farmers cooperative and gave two reasons for their

willingness: (1) such membership will qualify them for agricultural production loans from government lending institutions; (2) said membership will enhance their credibility as beneficiary of other government assistance to small farmers.

Fifty five or 55% of the respondents expressed their reluctance and dislike by giving the following reasons: (1) members of a cooperative may not have the same interest and will not exert the same effort for the good of the organization; (2) all the farmers cooperatives they have known were failures; (3) they feel lazy working for something not entirely their own, and (4) they don't see the importance of cooperatives.

In general, the willingness and unwillingness of the transient farmers to become members of Farmers Cooperative almost balance, but more inclined to be unwilling than willing by 5%. This can be attributed to their divergent thinking and ignorance of the importance of cooperatives and distrust upon one another.

From the foregoing data, it can be inferred that by extending both technological and material assistance to these transient farmers, they can be persuaded to join the cooperative movement in order to maximize their productivity and alleviate their economic deprivation.

The Comparative Profitability of Short-Season Crops, Perennial Crops and Intercropping of Both Perennial and Short-Season Crops as Perceived by Transient Farmers

Table 17 shows the comparative profitability of short-season crops, perennial crops and intercropping of both perennial and short-season crops as perceived by the transient farmer-respondents. Seventy one or 71% of them (Option A), perceived short-lived crops as the most

Table 17

Comparative Profitability of Three Cropping Patterns as Perceived by the Transient Farmers

Kind of Farm Crop	PERCEIVED RANK OF OPTIONS "A"	"B"	"C"	"D"	"E"	"F"	Wtd. Mean	Rank
Short-season Crops	1(71)	2(4)	1(20)	3(6)	2(8)	3(6)	1.15	1
Perennial Crops	3(213)	1(2)	2(40)	2(4)	3(2)	1(2)	2.73	3
Intercrop-ping of Both Crops	2(142)	3(6)	3(60)	1(2)	1(4)	2(2)	2.18	2
No. of Transient Farmers	71	2	20	2	4	2	100	
Percent	71%	2%	20%	2%	4%	2%	100%	

Ranking Scale Used: 1 - Most Profitable
2 - Less Profitable
3 - Least Profitable

profitable, followed by intercropping as less profitable and perennial crops as the least profitable among the three cropping systems.

Twenty or 20% of them, (Option C), perceived perennial crops as second to short-season crops and intercropping as the least profitable among the three cropping systems, alleging that when small plant crops are planted beneath tall-growing plants, they would not grow normally.

Only four or 4% of the respondents, (Option E) rated intercropping as the most profitable followed by short-season crops with perennial crops as least profitable.

Another four or 4% of the respondents, (Option B and F) rated perennial crops as the most profitable, but splitted themselves equally on short-season crops and intercropping as second in profitability and subsequently exchanged perceptions on intercropping and short-season crops as the least profitable. Still, another 2 or 2% of the respondents, (Option D) has a divergent perception. To them, intercropping is the most profitable followed by perennial and short-season crops as less and least profitable respectively.

Differences in the Profitability of Short-Season Crops, Perennial Crops and Intercropping of Both Crops as Perceived by the Transient Farmers

Table 18 presents the strength of the transient farmers' agreement or disagreement with five statements supportive to the idea that perennial agricultural crops gives more profit to the farmers of the upland than short-season crops. Ninety three or 93% of the 100 respondents strongly agreed that the fertility of the upland is lost by continued planting of short-season crops (rice, corn, root crops, etc.).Two or 2% agreed, one or 1% disagreed and only one strongly disagreed with the statement, while three or 3% of the 100 respondents were undecided.

Eighty eight or 88% of the 100 respondents strongly disagreed with the idea that the fertility of the uplands can be maintained if planted with perennials like coconuts, lanzones, jackfruits, etc., six or 6% of them disagreed, four or 4% were undecided, while only one agreed and another one strongly agreed with said idea.

Ninety two or 92% of the same respondents strongly disagreed with the idea that the uplands can be more productive if planted with short-season crops; three of them disagreed, two were undecided and three were agreeable.

Table 18

Productivity of Perennial Crops as Perceived by Transient Farmers Themselves

Indicator Statements	SA (5)	A (4)	UD (3)	D (2)	SD (1)	Total	Wtd. Mean
Fertility of the upland is lost by continued planting of short-season crops (rice, corn, rootcrops, etc.)	93 (465)	2 (8)	3 (9)	1 (2)	1 (1)	100 (485)	SA 4.85
To maintain the fertility of the uplands, perennial plants (coconuts, lanzones, jackfruits, etc.) must be planted.	1 (5)	1 (4)	4 (12)	6 (12)	88 (88)	100 (121)	SD 1.21
The uplands can be more productve if planted with perennials than with short-season crops.	1 (5)	2 (8)	2 (6)	3 (6)	92 (92)	100 (117)	SD 1.17
By planting perennial plants,planting once means harvesting forever	44 (220)	6 (24)	6 (18)	3 (6)	41 (41)	100 (309)	A 3.09
The farmers who have planted perennial plants were also able to build permanent homes	2 (10)	2 (8)	6 (18)	17 (34)	73 (73)	100 (143)	SD 1.43
Total Frequency	141	13	21	30	295	500	2.35

Legend:
- 4.51-5.00 - Strongly Agree (SA)
- 3.51-4.50 - Agree (A)
- 2.51-3.50 - Undecided (UD)
- 1.51-2.50 - Disagree (D)
- 1.00-1.50 - Strongly Disagree (SD)

Forty four or 44% of the same respondents strongly agreed that planting of perennial crops once means harvesting crops forever; six or 6% of them also agreed, another six or 6% were undecided, three disagreed and forty one or 41% strongly disagreed with said statement.

Seventy three or 73% of the same respondents strongly disagreed that the farmers who were able to plant perennial crops were also able to build permanent homes, 17 or 17% of them disagreed, six or 6% were undecided, two or 2% agreed and another two or 2% strongly agreed with the statement.

Table 19 presents the transient farmers' agreement or disagreement with five statements supportive to the idea that short-season crops is more profitable than perennial crops.

Ninety two or 92% strongly agreed on the statement that the production of short-season crops requires lesser effort and lesser time than production of perennial crops, three or 3% agreed, two or 2% were undecided, two or 2% disagreed and only one strongly disagreed.

Eighty one or 81% of the 100 respondents strongly agreed with the statement that you can harvest two or three times in one year if you are raising short-season crops, nine or 9% agreed, three or 3% were undecided, four

Table 19

Productivity of Short-Season Crops as Perceived by the Transient Farmers Themselves.

Indicator Statements	SA (5)	A (4)	UD (3)	D (2)	SD (1)	Total	Wtd. Mean
Producton of short-season crops need lesser effort and lesser time than perennial crops	92 (460)	3 (12)	2 (6)	2 (4)	1 (1)	100 483	SA 4.83
You can harvest two to three times in one year if you are raising short-season crops	81 (405)	9 (36)	3 (9)	4 (8)	3 (3)	100 461	SA 4.61
You get more income with lesser expense by planting short-season crops	61 (305)	6 (24)	8 (24)	19 (38)	6 (6)	100 397	A 3.97
Farmers producing short season crops have higher income than farmers with perennial plants.	64 (320)	4 (16)	16 (48)	10 (20)	6 (6)	100 410	A 4.10
You need only a small area of land to produce a great quantity of product when you are engaged in the planting of short-season crops	87 (435)	7 (28)	5 (15)	1 (2)	0 (0)	100 480	SA 4.80
Total Frequency	385	29	34	36	16	500	4.46

Legend:
- 4.51-5.00 – Strongly Agree (SA)
- 3.51-4.50 – Agree (A)
- 2.51-3.50 – Undecided (UD)
- 1.51-2.50 – Disagree (D)
- 1.00-1.50 – Strongly Disagree (SD)

or 4% disagreed and 3 or 3% strongly disagreed.

Sixty one or 61% of the 100 respondents strongly agreed with the statement that you get more income with lesser expense by planting short-season crops, six or 6% agreeed, eight or 8% were undecided, nineteen or 19% disagreed and six or 6% strongly disagreed with the statement.

Sixty four or 64% of the 100 respondents strongly agreed that farmers of short-season crops have higher income than farmers with perennial crops, four or 4% agreed, sixteen or 16% were unndecided, ten or 10% disagreed and six or 6% strongly disagreed.

Eighty seven or 87% of the 100 respondents strongly agreed with the statement that you need only a small area of land to produce a great quantity of product when you plant short-season crops, seven or 7% of the respondents also agreed, five or 5% were undecided, and only one disagreed.

Table 20 presents the transient farmers' degree of agreement or disagreement with five statement supportive to the idea that intercropping of both perennial and short-season crops is more profitable than especialization of either of them.

Table 20

Intercropping of Perennial and Short-Season Crops as Perceived by the Transient Farmers

Indicator Statements	SA (5)	A (4)	UD (3)	D (2)	SD (1)	Total	Wtd. Mean
The indiigenous character of the land can be mantained by intercropping of short-season crops with perennial crops.	11 (55)	29 (116)	29 (87)	30 (60)	1 (1)	100 319	UD 3.19
By intercropping of shor-season crops with perennial plants, greater plant population can be accommodated in a limited area of land.	71 (355)	4 (16)	13 (39)	8 (16)	4 (4)	100 430	A 4.30
Short-season crops are retarded when grown beneath perennial plants	62 (310)	6 (24)	18 (54)	9 (18)	5 (5)	100 411	A 4.11
The tedious job of repetitious plantng and weeding can be avoided later, if perennial plants are always planted on a farm along with short-season crops.	51 (255)	21 (84)	9 (27)	11 (22)	8 (8)	100 396	A 3.96

Table 20 contd.

Indicator Statements	SA (5)	A (4)	UD (3)	D (2)	SD (1)	Total	Wtd. Mean
Great producion income can be realized in a farm if perennial plants are always planted together with short-season crops	31 (155)	47 (188)	2 (6)	14 (28)	6 (6)	100 383	A 3.83
Total Frequency	226	107	71	72	24	500	3.88

Legend: 4.51-5.00 - Strongly Agree (SA)
3.51-4.50 - Agree (A)
2.51-3.50 - Undecided (UD)
1.51-2.50 - Disagree (D)
1.00-1.50 - Strongly Disagree (SD)

Only eleven or 11% of the 100 respondents strongly agreed with the idea that the indigenous character of the land can be maintained by intercropping of short-season crops with perennial crops, 29 or 29% of said respondents agreed, another 29 or 29% were undecided, 30 or 30% of the same respondents disagreed and only one strongly disagreed.

Seventy one or 71% of the same respondents strongly agreed with the statement that by intercropping of short-season crops with perennial crops, greater plant population can be grown in a limitted area of land, four or 4% of said respondents also agreed, thirteen or 13% of them

were undecided, eight or 8% of them disagreed and four or 4% of them strongly disagreed.

Sixty two or 62% of the 100 respondents strongly agreed that short-season crops are retarded when grown beneath perennial plants, six or 6% of them also agreed, eighteen or 18% of them were undecided, nine or 9% of them disagreed and five or 5% strongly disagreed with the idea.

Fifty one or 51% of the 100 respondents strongly agreed that the tedious job of repetitious planting and weeding can be avoided later if perennial plants are always planted on a farm along with short-season crops, twenty one or 21% of them also agreed, nine or 9% of them were undecided, eleven or 11% of them disagreed and eight or 8% of said respondents strongly disagreed with the statement.

Only 31 or 31% of the 100 respondents strongly agreed that productivity of the upland is maximized when perennial plants are grown with the short-season crops, 47 or 47% of the same respondents also agreed with the idea, only two or 2% were undecided, fourteen or 14% disagreed and six or 6% of them strongly disagreed weith the statement.

It can be inferred from the foregoing data that majority of the transient farmers perceived short-season crops to be more profitable than perennial crops, while

others were uncertain. Hence, the need for a workable extension program to guide and persuade these peasant transient farmers to adopt perennial plant crops in the upland as the most appropriate utilization of the hillsides and to conserve the indigenous character of the forest lands.

Table 18 shows the transient farmer's perception of the profitability of perennial crops in comparison with short-season crops. The weighted mean of their responses showed their disagreement with five indicator statements.

Table 19 shows the transient farmers perceptions of the profitability of short-season crops in comparison with perennial crops. The weighted mean of their responses showed their agreement with the five indicator statements.

Table 20 shows the transient farmers' perception of intercropping of short-season crops with perennial crops in comparison with specialization of either perennial crops or short-season crops. The weighted mean of their responses showed an agreement with the five indicator statements but with lesser significance than their agreement with short-season crops.

Table 21

Summary of Productivity of Perennial Crops, Short-Season Crops and Intercropping of Perennial and Short-Season Crops as Perceived by the Transient Farmers

Indicator Statement	Perennial Crops	Short-Season Crops	Intercropping of Perennial and Short-Season Crops
1	4.85	4.83	3.19
2	1.21	4.61	4.30
3	1.17	3.97	4.11
4	3.09	4.10	3.96
5	1.43	4.80	3.83
Total	11.75	22.31	19.39
Mean	2.35	4.46	3.88

The above data (Table 20) shows the significant differences of the weighted mean of their responses to the five indicator statements which psychologically measures their perceptions of the profitability of perennial crops, short-season crops and intercropping of both perennial and short-season crops.

Table 22

Analysis of Variance on the Productivity of Perennial Crops, Short-Season Crops, and Intercropping as Perceived by the Transient Farmers

Sources of Variation	Degrees of Freedom	SS	MS	F-value	Critical F-value
Between	2	11.89	5.945	6.097	3.89
Within	12	11.70	0.975		
Total	14	23.59			

The ANOVA as reflected in Table 22, showed that the computed F-value which is 6.097 is greater than the critical F-value of 3.89. This led to the rejection of the null hypothesis pursued in this study which states that "There are no significant difference in the profitability of (a) perennial agricultural crops, (b) short-season crops, and (c) intercropping of perennial and short season crops as perceived by the transient farmers. As can be gleaned from Table 21, the transient farmers are much in favor of short-season crops, followed by intercropping of short-season crops with perennial crops as the least productive of the three. This is evidenced by the corresponding weighted means of 4.46, 3.88 and 2.35 respectively.

Table 23

Comparison of Means Using the Scheffe's Test

Means Compared				Computed Scheffe's F-value	Significance
X_1	Perennial Crops	vs	$\bar{X}_2$ Short-Season	5.41	Significantly Different
X_1	Perennial Crops	vs	$\bar{X}_3$ Inter-cropping	3.92	Significantly Different
X_2	Short-Season	vs	$\bar{X}_3$ Inter-cropping	1.49	Not Significantly Different

To further test which of the three (3) 'cropping patterns, the transient farmers perceived more productive than the other, the Scheffe's test was employed as reflected in Table 23.

Critical Scheffe's F-value: $\sqrt{(k-1)(F_{.05},\ 2,\ 12)}$

$= \sqrt{2(3.89)} = 2.79$

The result of the Scheffe's test of significance clearly show that short-season crops is perceived by transient farmers to be the most profitable, intercropping being the second and perennial crops as the least profitable among the three.

Chapter 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary, conclusions and recommendations of the study which the researcher derived through his investigation in a descriptive survey research of the transient farmers in San Jorge, Samar. The study was mainly concerned with formulating an economically viable model of agricultural extension program based on an investigation of the socio-economic conditions, farming practices and agriculture technology needs, economic aspirations, attitudes towards cultivation and rehabilitation of cogonal lands, attitudes towards membership with cooperatives and perceptions of the profitability of perennial crops vis-a-vis short-season crops.

The sources of data were the responses of 100 transient farmers randomly chosen from among the transient farmers in ten randomly chosen barangays of San Jorge, Samar, namely: Bongliw, Cagtoto-og, Canyaki, Gayondato, Lincoro, Puhagan, Ranira, Rosalim, San Isidro, and Tomogbong.

Summary of Findings

The study revealed the following findings:

As a result of a systematic random sampling of barangays and getting ten percent of the transient farmers in each choosen barangay as respondents in the study, 13 respondents were interviewed in barangay Bongliw, 11 respondents in barangay Cagtoto-og, 7 respondents in barangay Canyaki, 9 respondents in barangay Gayondato, 7 respondents in barangay Lincoro, 8 respondents in barangay Puhagan, 13 respondents in barangay Ranira, 12 respondents in barangay Rosalim, 7 respondents in barangay San Isidro and 13 respondents in barangay Tomogbong; a total of 100 respondents.

These 100 respondents ranged in age from 22 to 72 with an average of 45.19.

Of the 100 respondents, only one had college education, only 13 had high school education; majority 75 or 75% had only elementary education and 11 or 11% of them had not gone to school.

The family size of these 100 respondents ranged from 2 to 10 members with an average of 5 members.

Their farming experience ranged from 3 to 43 with an average of 22.27 years.

Their monthly income ranged from P400.00 to P3,000.00 with an average of P1,036.00.

Their farming business net worth ranged from P1,180.00 to P67,700.00 with an average of P10,219.82.

The physical features of land they wanted for farming were: (1) absence of cogon grass, (2) deep surface soil, (3) level or plain without rocks, (4) trees have grown big, (5) rich in organic matter, and (6) near the source of drinking water.

Majority of the transient farmers, 84 or 84% traditionally prepared the land for planting by caingin system followed by burning when dry, grabbing, weeding or "saksak" and the land was ready for planting. Only few, 16 or 16% prepared the land correctly by caingin, grabbing, plowing, harrowing and farrowing which prepared the land for planting any of the crops they like.

The order of succession of planting crops preferred by the transient farmers had preponderance on cereal grains (rice and corn) simultaneous with bananas and pineapple succeeded by root crops (camote, cassava, peanuts, etc.) then mongo and other vegetable crops.

There were four reasons why the transient farmers did not stay permanently in one farming area: (1) agricultural crops no longer grow well on land repeatedly planted to

short-season crops, (2) to evade the tedious job of weeding out cogon grasses, (3) to find areas were crops could grow better, and (4) to be able to cultivate a wider area.

The agricultural technology needs of the transient farmers were: (1) land cultivation tools, implements and equipment, (2) planting materials of fruit trees and non-traditional vegetable crops, (3) money for hired labor, (4) protection against lawless elements (thieves, terrorists and robbers), (5) technological knowledge and farming skills, and (6) agriculture teacher technicians.

The economic aspirations of the transient farmers were: (1) to have a bountiful harvest of rice, corn, vegetables, fruits and root crops, (2) to have a steady high income every month, (3) to live in a durable and beautiful house, (4) to acquire/own a low land rice field and a plantation of permanent crops, and (5) to have children achieve high levels of education.

The transient farmers perceptions revealed that short-season crops is the most profitable; intercropping of short-season crops with perennial crops was less profitable and perennial crops as the least profitable among the three cropping patterns.

The transient farmers reasons for not planting perennial plant crops were: (1) perennial plants gets burned

before they are grown productive, (2) perennial plants yields lesser income than short-season crops, (3) immediate need for food restrains them from planting perennial crops, and (4) efforts and time were barely enough to earn the present needs of the family.

There were three alternative ways to utilize idle cogonal lands suggested by the transient farmers: (1) plow and cultivate these cogonal lands and plant perennial crops, (2) leave the land idle until trees are grown big by natural means, and (3) raise ruminants to grease on the cogon grass.

The transient farmers' failure to utilize these idle cogonal lands was mainly due to the following reasons: (1) frequent occurence of grass fire (burning) which wipe out plants, (2) lack of appropriate farm tools, implements and equipment for land cultivation, (3) cultivation of cogonal land is very difficult, (4) lack of money for hired labor, and (5) inavailability of desirable planting materials.

The number of transient farmers with negative attitude towards membership with Farmers Cooperative was only five more than those with positive attitude, 55 against 45. The former, advanced three reasons for their reluctance to join the Cooperative: (1) members of a coopera-

tive may not have the same interest and may not exert the same effort for the good of the cooperative, (2) previously known cooperatives were all failures, and (3) they felt lazy working for something not owned individually.

The transient farmers with positive attitude towards membership with cooperatives presented only two reasons for their willingness to join the cooperative: (1) they expect to obtain agricultural production loans, and (2) their membership with cooperatives will enhance their credibility as beneficiary of other government assistance.

The transient farmers disagreed generally with the premise that perennial crops gives more profit to the farmer than short-season crops. They perceived short-season crops as the most profitable, followed by inter-cropping of perennial and short-season crops as less profitable and perennial crops was the least profitable among the three cropping patterns.

Conclusions

In the light of the foregoing findings, it is concluded that:

1. Old age, long experience in farming and small size of family, do not ensure high level of income for the family.

2. The low levels of monthly income and small farming business networth among transient farmers was attributed to their low levels of education, ignorance of new farming technologies, inaccessability to easy means of transportation and absence of government assistance.

3. The transient farmers criteria for selecting their farming areas are antiquated, and do not conform with efficient farming technologies.

4. The transient farmers antiquated procedure and system of land cultivation and preparation can be redirected towards efficient farming technology if the model of extension program includes lending and/or providing appropriate land cultivation tools, implements and equipment as well as practical farm work demonstrations.

5. The transient farmers preference for short-season crops over and above perennial crops can be properly rectified through lecture discussions on the long run profitability of perennials, farm modeling and educational trips to established farms of multicropping patterns.

6. The transient farmers habitual transfer from one farming area to another can be minimized if not absolutely prevented by helping them establish a fruit orchard or plantation of perennial crops where they will have

interest in building a permanent dwelling house.

7. The transient farmers need for land cultivation tools, implements and equipment can be fulfilled by organizing them into Farmers Cooperative which will qualify them for production assistance loans from government lending institutions.

8. The economic aspirations of the transient farmers, can serve as guiding light and the assistance and services of the extension program can serve as fuel to generate energy of the transient farmers in achieving the objectives of the extension program.

9. If a viable model of agricultural extension program can be institutionalized in San Jorge, by the Samar National Agricultural School in coordination with the Department of Agriculture (DA), Department of Agrarian Reform (DAR), Department of Environment and Natural Resources (DENR) and the Land Bank of the Philippines (LBP), that vast idle denuded mountains will eventually become fruit orchards and the transient farmers will cease being transient. Instead, they will become plantation owners of perennial agricultural crops in permanent homes with high levels of income from multicrop farming.

Recommendations

Consequent to the foregoing conclusions, the researcher recommends that:

1. A similar study be undertaken in other municipalities of Samar to promote the multiplying effect of maximizing the labor efficiency of the underemployed transient farmers and maximize the productivity of idle cogonal lands in Samar.

2. The institutional model of extension program hereinafter formulated be implemented by the Samar National Agricultural School (SNAS).

3. Other government agencies with strategic or related functions like the D.A., D.E.N.R., D.A.R., and L.B.P. coordinate with SNAS in providing the desired financial, material and technological assistance for the success of this extension program.

4. A municipal ordinance be passed, penalizing anyone caught having initiated or caused the burning of grass fire in agricultural lands.

Chapter 6

THE INSTITUTIONAL MODEL OF AGRICULTURAL EXTENSION PROGRAM OF SNAS FOR TRANSIENT FARMERS IN SAN JORGE, SAMAR

This chapter describes the model of agricultural extension program for transient farmers in San Jorge and discuss the objectives and mechanics of its implementation by the Samar National Agricultural School (SNAS). This evolved from a study of the socio-economic conditions of the peasant transient farmers in said municipality, the target beneficiary of this extension program.

Description of the Extension Program

This model of agricultural extension program purports to mobilize and harness underemployed farm labor resources and rehabilitate that vast areas of denuded agricultural lands as the mechanism to spur economic progress among transient farmers in San Jorge, Samar. It is designed to be an institutionalized function of the Samar National Agricultural School, and to be undertaken as long as the school exists. This extension program provides non-formal education on cooperatives development, upland farming technologies and practical farming skills training as well as minimal material assistance to the transient farmers in order to improve their living conditions.

Objectives of the Extension Program

The following objectives highlight the formulation of this model of extension program:

1. To help the peasant transient farmers organize themselves into cooperatives as an institutional link between farmers and service agencies of the government.

2. To motivate and induce transient farmers to undertake the cultivation and rehabilitation of that vast areas of idle cogonal lands by planting fruit trees and other perennials which generate additional income.

3. To stop or at least minimize that on-going awful degradation of hillyland farming areas caused by habitual transfer from one farming area to another without planting perennial plant crops.

The Mechanics of Implementation

To implement this extension program, the Vocational School Administrator (VSA) of SNAS will assign one Vocational Agriculture Teacher (VAT) to each of the ten economically disadvantaged barangays of San Jorge designated as beneficiary of this extension program. Such designation requires the willingness of at least fifteen[62]

---

[62]Art. 6, Chapter II, R.A. No. 6938, Congress of the Philippines, March 10, 1990.

transient farmers to organize themselves into a Farmers Cooperative Association (FCA) (See Fig. 4, FCA Organizational Chart). The VAT therefore proceeds as follows:

1. Comes to the prospective Barangay Beneficiary on weekend initially to convene the peasant transient farmer-residents and explain to them the purposes and objectives of the extension program.

2. Determine their willingness or refusal to organize themselves into FCA, and

3. When willingness is ascertained, assist the original FCA organizers in formulating the Articles of Cooperation, the by laws and other necessary papers for the registration of the FCA with the Cooperative Development Authority (CDA) pursuant to the provisions of Art. 6, of RA No. 6938.

4. Serves as teacher/instructor of non-formal education on cooperatives, farming technologies, and practical farming skills to the Cooperators of the Program (CoPs) in the barangay assigned to him, two days per week.

5. Conducts seminars/conferences of CoPs and holds lecture discussions in the Barangay Center on desirable upland farming technologies with emphasis on fruit tree farming, cerial grains, vegetables, root crops, swine and poultry production.

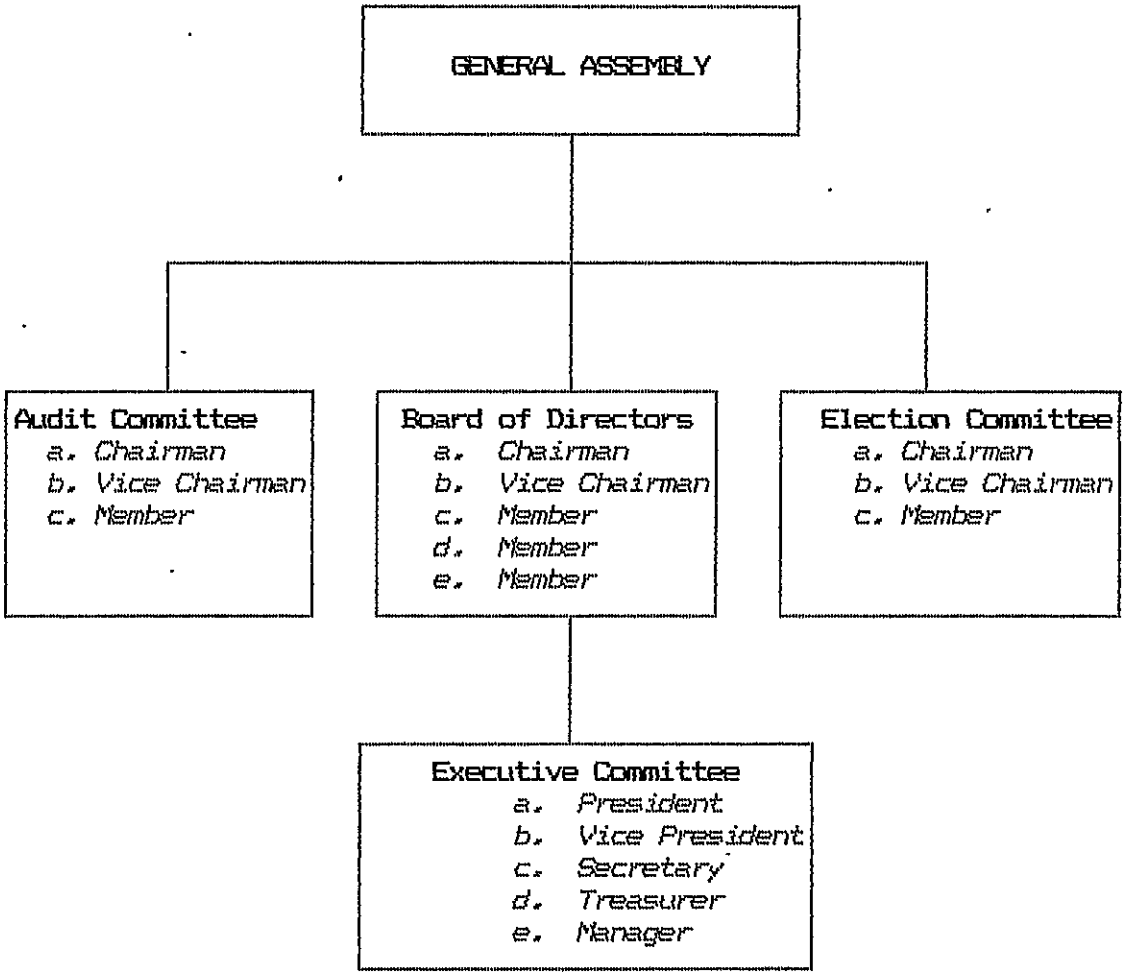


Figure 4. Organization Chart of the Farmer's Cooperative Association

6. Performs practical farming skills demonstrations such as plowing the field with wooden plow and carabao, or tractor, deluting and spraying insecticides, applying fertilizers, feed formulation etc.

7. Represent SNAS in providing material assistance to the CoPs such as lending tillage equipment, implements and tools, giving free seedlings of fruit trees and other planting materials.

8. Represent SNAS in seeking linkages with DA, DAR, DENR, and other agencies to solicit material assistance to the transient farmers to augment what the school can provide.

9. Serves as liason/conveyor of government assistance to the clientele of the extension program.

10. Helps prepare and submit necessary papers required by DAR from CoPs to obtain ownership of land.

11. Helps prepare and submit necessary papers required by capital-lending institutions to obtain loan assistance such as feasibility studies, etc.

12. Insures the proper economy and use of government facilities extended to the CoPs.

13. Facilitates and ensure the loan repayments by the CoP's to government lending institutions.

The VATs of SNAS will perform the above functions and duties without relinguishing their usual duties and functions in the formal education program of the school. They will be coordinated by the Extension Program Coordinator of the school who is directly under the VSA relative to the implementation of the extension program.

The Role of the Transient Farmer-Beneficiaries

The counterpart role and obligation of the transient farmers as beneficiaries of the SNAS extension program is to adapt a 10-year upland farm development strategy.

A 10-year period of gradual upland farm development is envisioned as the basic strategy in this model of extension program because of two obvious reasons:

1. Maximum productivity of a farm is never achieved overnight, neither in so short a time as one desires. It takes some years of skillful planning, industrious and daring management, abstinence of pleasures and long waiting until perennial plant crops are grown to maximum productivity along with the raising of short-season crops in combination with livestock while waiting for the perennial plant crops to become productive.

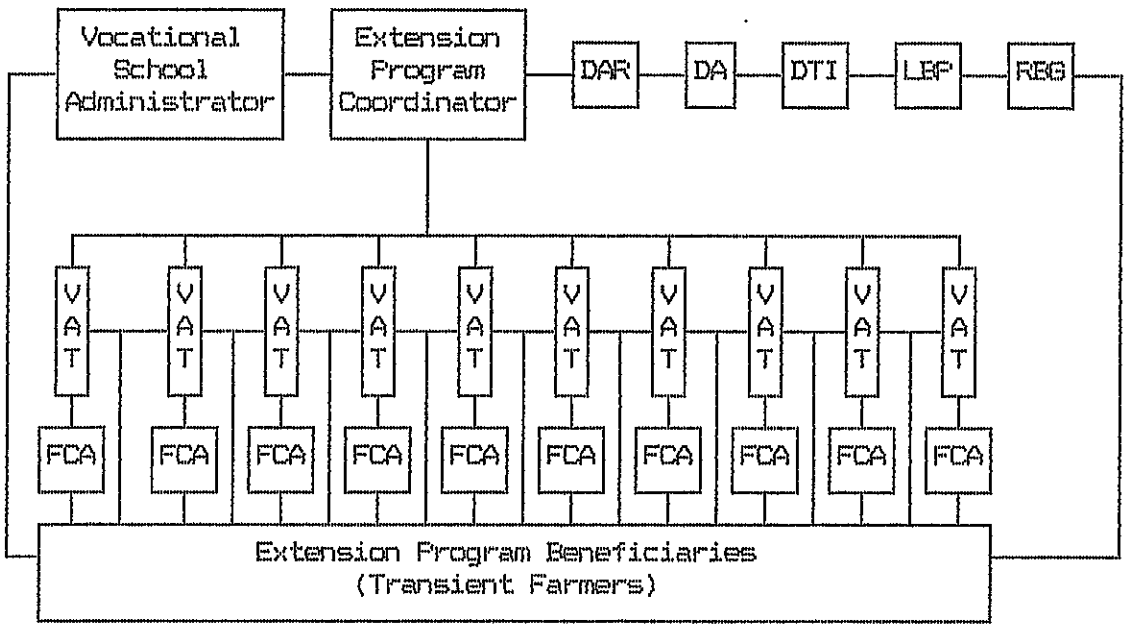


Figure 5. Organization Chart of Personnel Involved in the Extension Program.

2. The peasant transient farmers, working both as owner-manager and laborer alone by himself with limited material assistance of the extension program, may not be able to clear and cultivate more than half hectare at a time. Hence, a 10-year long gradual farm development strategy should initially concentrate on only half hectare or even less during the first year (See Fig. 6) with a livestock project to work on when the sun is too hot or the weather is too cold for him to work out in the field. This livestock project as complement to his crop production enterprise will maximize the use of his time and effort as well as his farm by products.

This 10-year upland farm development strategy, as the transition period to the attainment of improved economic conditions for the transient farmers, ensures the reforestration and rehabilitation of idle cogonal lands by planting fruit trees and other perennial plants of economic value in all the areas cleared and cultivated by them while being assisted both materially and technologically by the SNAS extension program. Caingin of the first half hectare is traditionally done during the months of February and March, the onset of dry weather (San Jorge conditions) and burning one month after, is immediately followed by grabbing, plowing, harrowing and farrowing. The planting of short-season crops (rice, corn, camote, etc.) undertaken as soon as the field is ready usually in the month of April and May is to be accompanied with the planting of fruit tree seedlings in the same field so that when the short-season crops are harvested five months thereafter, the fruit trees shall have acclimatized and started growth. Immediately after the harvest of the short-season crops, the same area shall be cleared and cultivated so that a second planting of short-season crops can be done beneath the growing fruit trees to suppress the growth of weeds especially cogon grasses.

	1st hectare		2nd hectare		3rd hectare		4th hectare		5th hectare	
1st year	xxxxxxxx xxxxxxxx									
2nd year		xxxxxxx xxxxxxx								
3rd year			xxxxxxxx xxxxxxxx							
4th year				xxxxxxx xxxxxxx						
5th year					xxxxxxxx xxxxxxxx					
6th year						xxxxxxx xxxxxxx				
7th year							xxxxxxxx xxxxxxxx			
8th year								xxxxxxx xxxxxxx		
9th year									xxxxxxxx xxxxxxxx	
10th year										xxxxxxxx xxxxxxxx

Figure 6. Gantt Chart Showing the Gradual and Cummulative Establishment of Perennial Agricultural Crops in Ten Years Time

By this farm operation technique, the passage of another six months will make the field almost entirely covered with the foliage of growing fruit trees even after harvesting the short-season crops beneath, thus, suppressing growth of weeds and reducing labor expense in succeeding years.

In the month of February or March of the succeeding year, again, Caingin of another half hectare adjacent land shall be undertaken following the same operation technique as that of the first half hectare. THis time, minimal attention and labor is given to the previously cultivated half hectare farm land becuase more attention and labor shall now be on the next half hectare to be planted as before with short-season crops together with fruit tree seedlings and other perennial plant crops.

Five months thereafter, when the short-season crops shall have been harvested, the fruit trees therein will have started growth and weeding of such area for the planting of a succeeding short-lived crops will enable the fruit trees to grow and spread foliage to suppress the growth of weeds while the short-season crops provide subsistence of the farmer while waiting six to ten years for the perennial plant crops to attain maximum productiv-ity.

This same farm operation technique may be repeated every year for a 3rd, 4th, 5th, until the 10th half hectare farm (a total of five hectares) shall have been fully developed and productive.

Intercropping in Fruit Farming

A farmer may have irresistable propensity for specializing on only one species of fruit tree due to (a) personal taste, (b) availability of planting materials, (c) market demand, (d) soil and topography of land and many other reasons. This has no merit in the wisdom of the following principles: (1) Fruit trees of different species, do not bear fruits at the same time. Lanzones, bear fruits in August to October, Jack fruits, in February to August, Caimito in April and May and Avocado in June to September. (2) Some fruit trees normally grow in the open while others need partial shading. (3) Some fruit trees are more susceptible to diseases than others.

In view of these, a farmer specializing in only one species of fruit tree may have abundance of fruits during a few months of the year with nothing to eat during the rest of the year.

It is therefore advisable for a farmer to intercrop various species of fruit trees and other perennials like "palawan" (Cyrtosperma mercosi), bamboos (Bambusa

Vulgaris), etc., in his farm to have more economic security in time of upsurge of plant diseases, rat and insect infestation or occurence of inclement weather.

Expected Outcome

Significant and measurable indicators of success in the implementation of this model of extension program conceived by the researcher are the following:

1. Ten Farmers Cooperative Associations (FCA's) organized and registered with the Cooperative Development Authority (CDA) in two years time.

2. Purchase of at least five draft carabaos and five steel plows subsidized by government lending institution through agricultural production loans obtained by FCA's in every Barangay Beneficiary.

3. At least eight hectares in each Barangay Beneficiary planted to fruit trees in one year time; a total of 800 hectares of fruit trees in the ten Barangay Beneficiaries in ten years time.

4. At least one brood sow with five fattening hogs and a flock , 50 broilers maintained at a time by each farmer-beneficiary.

5. Levels of family income raised by 400%, that is, from P1,036.00 per month at the time of the survey, to

P4,144.00 per month after ten years of program implementation.

Tip to the VAT Implementing the Extension Program

Inasmuch as the clientele of the extension program (the upland farmers) are already accustomed to the planting of short-season crops (rice, corn, cassava, gabi, etc.) immediately after burning their caingin, it will be detestable and irritating for them to shift abruptly to deep tillage land cultivation (plowing) and planting of perennials. The implementors of the extension program, therefore, would do well by simply assisting them initially on what they are doing and wherever they are now. Later, when good raport shall have been established between the VAT and the Farmer-beneficiaries through friendly association, incidental suggestions and motivation may be done for the upland farmers to adapt the desired innovations such as plowing before planting, establishing leguminous hedgerows, planting of perennials along with short-season crops, other efficient farming technologies and soil conservation practices.

Production Feasibility Study

The increased levels of family income among the peasant farmer beneficiaries envisioned as the ultimate indicator of success in the implementation of the

Table 24

Crops Production Statistics of the Eastern Visayas Region

Name of Crop	Area Planted (ha)	Number of Trees (x 1000)		Annual Production(t)	Annual Production(Tree)
		Total	Bearing Year 1978		
Avocado	218	26.2	16.4	1,189.1	72.5 kg
Caimito	82	11.1	7.3	251.2	34.41 kg
Jack Fruit	984	115.0	79.3	6,995.7	88.22 kg
Lanzones	42	6.5	4.7	634.3	134.95 kg

extension program is deemed feasible and realistic in view of the above crops production statistics of the Eastern Visayas region[63].

From the above production statistics and the present prices of fruits at the sidewalk vendors in San Jorge and the neighboring towns of Gandara and Catbalogan, it is estimated that a farmer who owns an orchard of 100 avocado (Persia americana) trees, 100 caimito (Chrysophyllum cainito) trees, 100 jack fruit (Artocarpus champeden) trees, 100 lanzones (Lansium domesticum) trees, 200 coconut (Cocus nucifera)trees intercropped with a variety of short-season crops and complemented with swine and poultry enterprise will have a monthly Net Income of P8,624.72.

---

[63]Coronel, Roberto E., Promising Fruits of the Philippines, U.P. College of Agriculture, Los Baños, College, Laguna, 1983.

Table 25

Estimated Monthly Family Income of a Farmer
After Ten years of Extension Program Implementation

Source of Income/Crop	Annual Production (Kg)	Prevailing Price/Kg. (year 1993)	Annual Production Value	Monthly Production Value (P)
100 Avocado Trees	7,250	P 6.00	P 43,500.00	P 3,625.00
100 Caimito Trees	3,441	P 6.00	P 20,646.00	P 1,720.50
100 Jack Fruit Trees	8,822	P 6.00	P 52,932.00	P 4,411.00
100 Lanzones Trees	13,495	P15.00	P202,425.00	P16,868.75
200 Coconut Trees	1000*	P 6.00	P 6,000.00	P 500.00
1 Brood Sow and 5 Fat Hogs	250**	P50.00	P 12,500.00	P 1,041.66
50 Broiler Chickens	300**	P60.00	P 18,000.00	P 1,500.00
Total Gross Income				P 29,666.92
Production Expense				P 21,042.20
Net Income/Month				P 8,624.72

*Copra
**Meat

Market Feasibility

The marketability of fruits and other perennial plant products like coco-lumber and bamboo-splits is not a problem now in San Jorge as it had been in the past.

Twenty three kilometers of farm-to-market roads were constructed in three different geographical locations and destinations connecting (a) Barangay Tomogbong with the National Road, (b) Barangay Cantaguic with the National Road passing the town central and (c) Barangay Lapas with the existing Provincial Road, to facilitate the transporation and marketing system of pereshable fruits and other heavy marketable products. The farmers can opt to sell their products: (a) to middle men right in their farm homes, (b) to special "tabo" places, or (c) through their respective cooperative marketing channels. Said middle men can easily reach the farmers in their respective farm homes or "tabo" places by passenger jeepneys and motor cubs or by motorized bancas to farmers in barangays along the river.

San Jorge being already energized up to the remote barangay of Blanca Aurora, can have both local and foreign markets for its fruit products, if and when abundance of supply shall have been attained in the near future, because refrigeration and transportation is no longer a problem.

The present prevailing price of fresh fruits from the side walk vendors in San Jorge and its neighboring towns

of Gandara and Catbalogan promises a lucrative farm enterprise which is orchard management with other perennial plant crops and livestock. (Table 26).

Monitoring of Program Implementation

The Vocational Agriculture Teacher (VAT) of SNAS assigned to a particular Extension Program Barangay Beneficiary (EPBB) shall keep an accurate record of the economic progress of every Extension Program Farmer Beneficiary (EPFB) engaged in the 10-year gradual farm establishment (Fig. 6) described earlier in this Chapter. Initially, the VAT will require every EPFB to conduct and submit to him a Farm Business Inventory (Annex 1), so that whatever increment to his farming business is achieved henceforth, can be judiciously attributed to the success of the Extension Program implementation. An Annual Comparative Farm Inventory shall be made by every EPFB during the 4th week of December and a consequent consolidated report by the VAT to the SNAS Extension Program Coordinator (EPC) shall be made who in turn shall prepare and submit a consolidated report of the entire extension program implementation of SNAS. Other agencies of the government coordinating with SNAS in the implementation of the extension program shall be furnished with copies of said

Annual Report so that they will be appraised with the latest development of the extension program implementation, (Fig. 5).

The valuation of the EPFB assets (Table 26) in the said Farm Inventory shall conform with the following criteria:

Table 26

Criteria for the Evaluation of Assets

Type of Asset	Method of Valuation
Real Property	Current Market Price
Buildings	Replacement Value
Home Appliances	Replacement Value
Machinery	Purchase Price Minus Depreciation Value
Standing Crop	Current Market Price
Harvested Crop	Current Market Price
Livestock	Current Market Price
Bank Bond/Security	Face Value
Bank Deposit	Latest Balance
Cash on Hand	As Declared by the EPFB

Annex 1

Format of the Comparative Farm Business Inventory

Name: _____

Address: _____

Beginning Inventory: December 31, 1993	Value	Ending Inventory: December 31, 1994	Value
Real Property	P_____	Real Property	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Buildings	P_____	Buildings	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Home Appliances	P_____	Home Appliances	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Machinery	P_____	Machinery	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Standing Crop	P_____	Standing Crop	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Harvested Crops	P_____	Harvested Crops	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Livestock	P_____	Livestock	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Bank Bond/Security	P_____	Bank Bond/Security	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Bank Deposit	P_____	Bank Deposit	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Cash on Hand	P_____	Cash on Hand	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total Assets - - - -	P_____	Total Assets - - -	P_____
Liabilities:	P_____	Liabilities:	P_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total Liabilities- -	P_____	Total Liabilities- -	P_____
Networth - - - - - -	P_____	Networth - - - - - -	P_____
		Gain/Loss - - - - -	P_____

BIBLIOGRAPHY

A. BOOKS

Ebel, Robert (Ed.) Encyclopedia of Educational Research, New York: MacMillan Company Ltd., 1969.

Celestino, Andres F. and Elliot Florencia P., Hillyland Farming Systems in the Philippines: An Assessment, A Publication of the Farming Systems and Soil Resources Institute, College of Agriculture, University of the Philippines at Los Banos College, Laguna, 1986.

Contado, Tito. Barrio Development Schools, Department of Agricultural Education and Rural Studies, U.P. College of Agriculture, Los Banos, Laguna, 1974.

Good, Carter V. and Scates, Douglas E., Methods of Research: Educational, Psychological, Sociological, Appleton-Century-Crofts, Inc., New York, 1954, p. 601.

Manahan, William G. Theoretical Dimensions of Educational Administration, New York, McMillan Publication, 1975.

McConnell, Campbell R., Economics, Principles, Problems and Policies, 3rd Edition, 1960, p. 27.

Oppenfeld, Horst and Judith von; Sta. Iglesia J.C. and Sandoval R.P., Farm Management, Land Use and Tenancy in the Philippines, College, Laguna, 1957. p. 59.

Palma, Munos, Cecilia, The Constitution of the Republic of the Philippines, Adopted by the Constitutional Commission of 1986 at the National Government Center, Quezon City, Philippines, October 15, 1986.

Romualdez, Eduardo Z. Sr., Yoingco, Angel Q. and Casem, Antonio O. Jr., Philippine Public Finance, GIC Enterprises and Co., Inc., Manila, 1973, p. 36.

Starr, Philip C., Ecconomics, Principles in Action, Library of Congress Catalogue in Publication Data, 1981, p. 254.

Zwenepol, Paul, Tertiary Education in the Philippines: A Systems Analysis, Quezon City: Alemar's Phoenix, 1975.

B. PERIODICALS

Agner, Soledad G., Development Research in Graduate Education, SSPC Research Journal, 1990.

Aquino, Corazon C., State of the Nation Address, Philippine Public Affairs Annual, 1989-1990, p. 87.

Bacane, Senen C., Department of Agriculture Mission Statement, technotrends, October-December, 1990, p.23.

Chang, Chi Win, Rural Asia Marches Forward, UPCA, Los Banos, Lagina: 1969.

Careno, Isidro D., Speech Delivered During the Educator's Congress, held at Baguio City, Philippines, 1991.

Combs, Philip and Ahmed, MAnzcor, Attacking Rural Poverty: How Non-Formal Education Can Help, World Bank Publication, 1974.

Coronel, Roberto E., Promising Fruits of the Philippines, U.P. College of Agriculture, Los Banos, College, Laguna, 1983.

Dar, William C., Food Corp Technologies for the Uplands, Technotrends, January-March, 1991, p. 3.

Fadrilan, Rinzi, A Closer Look at Non-Formal Education, The Modern Teacher, November, 1979.

Galves, Manny, LandBank Allots PB B for Farmer-Members of 7, 000 Cooperatives, The Philippine Star, January 7, 1992.

Guiang, E. S., Community Forestry Program (CFP), Concept, Vision, Objectives, Strategies and Future Plans, Environment and Natural Resources, 1989.

Maceda, Ernesto. Who Will Redeem Our People? Privilege Speech, Reported by: Hilarion M. Henares Jr., Philippine Daily Inquirer, August 4, 1991, p. 5.

R.A. No. 6938, An to Ordain A Cooperative Code of the Philippines.

R.A. No. 6939, An Act Creating the Cooperative Development Authority, Approved March 10, 1990.

C. UNPUBLISHED MATERIALS

Agustin, Emeliana R., A Proposed Vocational Education Program for the Bangaw Boys of Tacloban City, 1980, A Doctoral Dissertation, Divine Word University, Tacloban City.

Arteche, Jesusita J., "Paradoxical Philippines", Lecture Handouts in Educational Planning, Summer, 1991, SSPC, Catbalogan, Samar.

Babalcon, Bienvinido O., An Educational Program for "Haplit" Boys of Paranas, Samar: A Proposed Model, Unpublished Thesis, SSPC, Catbalogan, Samar, 1992.

Dacanay, Eduardo A., Perceptions and Utilization of Agricultural Credit in Camarines Sur, A Master's Thesis, U.P. at Los Banos, College, Laguna, November, 1979.

De Guzman, Pablo L., The Barrion Association as an Institutional Link Between Farmers and Service Agencies, A. Master's Thesis, U.P. at Los Banos College, Laguna, June, 1980.

Elman, Nicolas R., Attitude of Cooperators Toward A Community Development Program in a Philippine Rural Village, A Master's Thesis, U.P. at Los Banos College, Laguna, February, 1980.

Jadloc, Jovita C., An Institutional Model of a Community Extension Program for the Leyte State College, A Dissertation, March, 1981.

Palau, Miguel, Bayanihan Schools Vocational Development Program: Policies and Guidelines, DECS Staff, July 1976.

Redoble, Tomasito G., The Human Resource Development Program of the National Manpower and Youth Council for Muslims of Region IX, A Dissertation, U.P. at Los Banos College, Laguna, April, 1980.

Saloko, Mohamad S., The Role of Schooling and Extension in Rice Production and Income of Farmers in South Sulawesi, Indonesia, Master's Thesis, U.P. College, Los Banos, Laguna, October, 1979.

Salonga, Jovito R., Commencement Address delivered at Silliman University, Dumaguete City, 1970.

TARAMDAN HA PAKIGHEMANGRAW
(Interview Guide)

(PARA HAN MGA PARA-UMA NGA WARAY PERME NGA UMHANAN)

UNA NGA BAHIN

HULAGWAY HAN MGA PARA-UMA NGA WARAY PERME NGA UMHANAN

Ma-upay nga adlaw ha imo, ma-uyatum nga akong sangkay:

Karuyag ko gad la mangomusta ngan masayod han iyo kabutangan parti han iyo mga katigayunan, mga binubuhat ha uma, mga kinahanglanon ha pag-uma, mga hingyap, hilig ha pananum han magdig-on nga tanum ug hilig ha pag-api hin kooperatiba han mga para-uma. Ini akon pag-aadman kon ano an angay buhaton han Samar National Agricultural School para mabuligan kamo pag-uswag han iyo panginabuhe ha uma. Sanglit, alayon pagbaton hin tangkod ngan hol-us ha kasingkasing han akon mga paki-ana.

An Imo Sangkay,

FELICIANO V. SADULLO
Researcher

1a. Hino an imo ngaran?_____ 1b. Lalaki? Babaye?

1c. Edad?____ 1d. Edukasyon: ( ) Waray pag-eskwela
( ) Primarya nga edukasyon
( ) Elementarya nga edukasyon
( ) Hataas nga eskwelahan
( ) Kolegeo nga edukasyon

1e. Mga ngaran han kaapi han panimalay: Relasyon ngadto han Edad: Ulo han Pamilya:

1. _____ _____ _____
2. _____ _____ _____
3. _____ _____ _____
4. _____ _____ _____
5. _____ _____ _____
6. _____ _____ _____
7. _____ _____ _____
8. _____ _____ _____

9. _____ _____ _____

10. _____ _____ _____

1f. Lugar nga Puy-anan: _____

1g. Pera na katu-ig an imo pag-inuma? _____ ka tu-ig.

1h. Kinalkolo nga Balwasyon Han Mga Katigayunan:

Panlawas nga mga gamit (dognet, sapatos, rilo, kwentas, ngan iba pa) may-ada ka? P _____

Mga gamit para kasayuran (radyo, tape recorder telebesyon, calculator, iba pa) may-ada ka? P _____

Mga muwebles: (linkuran, lamisa, aparador, katre, iba pa) may-ada ka? P _____

Mga gamit ha kusina (kaldero, karaha, plangana, plato, ohataw, kutsara, iba pa) may-ada ka? P _____

Balay nga poy-anan, may-ada ka? Pera añ balyo? P _____

Mga tanum: Ngarani,	Kahalo-agon: hectarya	Balwasyon:
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____

Mga hayop, Ngaran:	An Kadamo?	Balwasyon:
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____

Mga Garamiton ha Pag-uma (traktor, arado, pakaras, "sprayer", pala, matok, ngan iba pa)

_____	_____	P _____
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____
_____	_____	P _____

==========

TOTAL HAN NGATANAN NGA KATIGAYONAN - - - P _____

1i. Mga Baraydan: Kantidad:

Utang ha gobyerno	P	_____
Utang ha pribado nga mga tawo	P	_____
Plete o Malon para han tag-iya han tuna	P	_____
Buhis para ha gobyerno	P	_____
Kabog-usan han ngatanan nga mga baraydan	P	_____

1j. Pera man an kinikita mo nga "Income" kada bulan (kwarta pati produkto ha uma)? P _____

IKA DUHA NGA BAHIN

Mga Pamaagi han Pag-uma, Mga Kinahanglanon, Mga Ungara, Isip han Kamabinongahon han Mag-iha nga Tanum, Tanding han Magdali nga Tanum, Hileg ngadto han Pananum han mga Bungang Kahoy, Pagkultibar ngan Pagpahe-ule han mga Sagotsot nga Tuna, Hileg ngadto Pag-api hin Kooperati-ba han mga Para-uma

2a. Mga Pamaagi han Pag-uma (Farming Practices)

2a.1 Ano an imo pangilal-an han tuna nga ma-upay pag-umhan? (Pili-a ha ubos an imo inu-uyonan nga baton).

( ) Dagko na an mga kahoy.

( ) Waray torok nga kugon.

( ) Halarum an palanas ngan mahumok an tuna.

( ) Ano pa? _____

2a.2 Binpapa-ano man niyo pag-andam han tuna nga taranman hin bisan ano nga itaranum ha uma?

Una : _____ Ika-4: _____

Ika-2: _____ Ika-5: _____

Ika-3: _____ Ika-6: _____

2a.3 Kon andam na an tuna ha uma pagtanuman, ano an una niyo nga itinatanum?

Ika-2: _____ Ika-5: _____

Ika-3: _____ Ika-6: _____

Ika-4: _____

2a.4 Kay ano nga dire man kamo napermi hin lugar nga umhanan? (Pili-a ha ubos an inu-uyonan mo nga baton).

( ) Dire na man naghihinga-upay an mga tanum ha tuna nga padayon gintitinanuman hin magdali nga mga tanum.

( ) Ma-upay an tubo han mga tanum ha tuna nga bag-o la pinamodlan hin mga dagko nga kahoy.

( ) Makure na an pagbungkal han tuna nga damo na an kugon, sanglit nabalhin kami ngadto han waray kugon.

( ) Ano pa? _____

2b. Mga Kaandaman nga Kinahanglan ha Pag-uma (Agriculture Technology Needs)

2b.1 Ha imo paghunahuna, ano an mga kinahanglanon para magma-inoswagon ka nga para-uma? (Pili-a ha ubos an inu-uyonan mo nga baton).

( ) Kwarta nga igsosuhol pagtrabaho.

( ) Mga garamiton pagbungkal han tuna, sugad han traktor, arado, pakaras, karabaw, heringga han kimikal ngan iba pa.

( ) Kaabtikan ug kinaadman ha pag-arado, pag-aplay han fertilizer, paghalo ngan pagheringga han kimikal ngan iba pa nga trabaho.

( ) Kinaadman ha pagherot han tuna, pagpatubo han tanum, panbulong han mga sakit han tanum, pagpabunga han mga prutas ngan iba pa nga mga nadiskobre nga kinaadman.

( ) Magtorotdo nga teknisyan ha agrikultura nga makadto personal ha uma pagpasuga han bag-o nga paagi han trabaho pagherot han tuna, pananum ngan iba pa.

( ) Mga semelya han mga prutas, utanon, ug-iba pa nga itaranum nga darodako an produkto.

3. Ungara han mga Kakablasan (Economic Aspirations)

3a. Ano man an imo ginhihingyap nga ka-uswagan nga mahingadto-an han imo pakabuhi? (Pili-a ha ubos an imo inu-uyonan nga baton).

( ) Magkamay-ada permi ngan dako nga "income" kada bulan.

( ) Magkamay-ada dako nga ani hin humay, mais, utanon, prutas, duma ngan iba pa.

( ) Maka-ukoy hin madig-on ngan maanyag nga balay nga kalugaringon.

( ) Makapalit hin mga butang nga kalibangan pagpahalibway sugad han telebesyon, betamax, ngan iba pa.

( ) Magkamay-ada kalugaringon nga tuna, bukid ngan hin danaw, pati hasyenda hin kalobi-an.

( ) Hataas nga edukasyon han mga anak.

( ) _____

4a. Helig ngadto hin Pananum hin Magdig-on
(Attitude Towards Planting of Perennial Crops)

4a.1 Kay ano nga waray mo tanumi hin magdig-on nga mga tanum an pinambayaan mo nga mga umhanan? (Pili-a ha ubos an inu-uyonan mo nga baton).

( ) Dire naman maabot an kinabuhi ko ngada han pagbunga hiton mag-iha ngan magdig-on nga mga tanum.

( ) An mag-iha ngan magdig-on nga mga tanum gurogote an nakukuha nga produkto tanding hadto nga magdali nga mga tanum.

( ) Kulang ako hin nahibabaro-an ha pagpaturok, pagpabunga, ngan panbulong han mga sakit han bungang-kahoy.

( ) Dire ko man kalugaringon an tuna nga akon guin-iinuma.

( ) Kinahanglan gud namon an makaka-on yana dayon ngan waray ko panahon pagtrabaho hin ma-iha pa pagpulsan.

( ) _____

4b. Helig ngadto hin Pagkultibar ngan Pagpahe-uli han mga Sagotsot na nga Tuna (Attitude Towards Cultivation and Rehabilitation of Depleted Lands)

4b.1 Ha imo pagkita ngan pag-hunahuna, ano gud an maupay buhaton para pagpulsan ito nga mga tuna nga napabayaan na kay kogonan? (Pili-a ha ubos an inu-uyonan mo nga baton).

( ) Aradohon ngan tanuman hin mga bungang kahoy ug iba pa nga magdig-on nga tanum.

( ) Pabay-an ngada han pagtubo han mga kahoy nga natural.

( ) Himu-on nga pasab-saban hin mga karabaw, baka kanding ug iba pa nga mga hayop.

( ) _____

4b.2 Kay ano nga waray niyo nabuhat nga pagpahimulos hine nga mga tuna nga kakog-nan maiha na nga panahon? (Pili-a ha ubos an inu-uyonan mo nga baton).

( ) Waray man ako kuwarta nga eguinsusuhol pag-arado hine nga kakognan.

( ) Waray man ako karabaw ngan hin arado.

( ) Dire man ako maaram han pag-arado.

( ) Waray man kami mga hayop nga papasabsabon hiton nga kakognan.

( ) Haligot la an akon nahahawanan dida hiton nga kakognan kay bolo man la an akon gamit.

( ) Waray kami semelya him mga prutas.

4c. Helig Ngadto hin Pag-api hin Kooperatiba han mga Para-uma (Attitude Towards Membership with Farmer's Cooperatives)

4c.1 Maruruyag ka ba pag-api hin kooperatiba han mga para-uma?

( ) Oo ( ) Diri

4c.2 Kon diri ka naruruyag ano an hinongdan nga nadiri ka? (Pili-a ha ubos an inu-uyonan mo nga baton).

( ) An mga una mga kooperatiba, puros man nag-alkansi, napordoy hin anomaliya.

( ) Diri pareho an enteres han mga membro han kooperativa ngan nadiri ako igkabulig hin mga hobya.

( ) Mahobya an pagtrabaho kon an gana diri ngatanan akon.

( ) Diri ako sayod han mga kaupayan hine nga kooperatiba.

( ) _____

4c.3 Kon naruruyag ka pag-api hin kooperatiba, ano man an imo naruruyagan? (Pili-a ha ubos an inu-uyonan mo nga baton).

( ) Basi ako maka-utang hin kuwarta ha gobyerno.

( ) Maaabot na kami hin mga hinabang tikang ha gobyerno kay urusa na an amon katuyu-anan.

( ) _____

5a. An Kamabinongahon han Mag-iha nga mga Tanum Alinsunod han Pag-abat han mga Para-uma nga waray permi nga Umhanan (The Profitability of Perennial Crops as Perceived by the Transient Farmers)

5a.1 Ha-in hinin nasunod nga mga taranmon an inaabat mo nga nakukuhaan hin darodako nga "income"? (Sunod-sunura tikang han gihahataasi ngadto han gihahabobo-e pinaagi hin numero: 1 - gihahataasi
2 - harohabobo
3 - gihahabobo-e

_____ Magdali anihon nga mga tanum

_____ Mag-iha anihon nga mga tanum

_____ Terig-ub an magdali ngan han mag-iha anihon

6a. Nagkakaiba-iba ba an kamabinongahon hin "income" an: (a)Mag-iha nga mga tanum, (b) Magdali nga mga tanum, ngan han (c) Terig-ub an mag-iha ngan han magdali anihon nga mga tanum? (Ipasabot an kakusog han imo pag-uyon o pagtipa han nasunod nga mga sumat pinaagi hin paglidong han numero han tugma nga imo baton.)

5 - Hingpet nga pag-uyon
4 - Na-uyon
3 - Nag-aalang-alang
2 - Natipa
1 - Hingpet nga pagtipa

6a.1 Mga Sumat Fabor han Mag-iha nga mga Tanum:

(1) An banika nga tuna nasasagotsot han padayon nga pagtinanumi hin magdali nga mga tanum (humay, mais, kamote, ngan iba pa).	5	4	3	2	1
(2) Para hin kadayunan nga polos han banika nga tuna, kinahang-lan tanuman hin mag-iha nga mga tanum (lubi, bubuwa, langka, ngan iba pa).	5	4	3	2	1
(3) Darodako an produkto han banika nga tuna kon may bunga nga mga kahoy an tanum tanding hiton magdali nga mga tanum.	5	4	3	2	1
(4) Ha may bunga nga mga kahoy, usa la an pagtanum, kadayunan an produkto nga aanihon.	5	4	3	2	1
(5) An mga para-uma nga nagpakatanum hin magdig-on nga mga tanum, nagpakabalay na man liwat hin magdig-on.	5	4	3	2	1
Total Frequency Grand Mean					

6a.2 Mga Sumat Fabor han magdali nga mga Tanum:

(1) Goti-ay ngan madali an sakripisyo han pagpatubo han magdali anihon nga mga tanum.	5	4	3	2	1
(2) Makakapag-ani ka hin duha hasta tulo ka beses ha usa ka tu-ig kon magdali anihon an imo mga tanum.	5	4	3	2	1
(3) Dako an valyo han imo produkto tanding han imo gastos han pagpatubo han magdali nga mga tanum.	5	4	3	2	1

(4) Dagko an "income" kada bulan han mga para-uma han magdali nga mga tanum tanding hadto nga may-ada magdig-on nga mga tanum.	5	4	3	2	1
(5) Haligot la nga tuna an kinahanglan para makakuha hin damo nga produkto kon magdali anihon an imo mga tanum.	5	4	3	2	1
Total Frequency Grand Mean					

6a.3 Mga Sumat Fabor han Tirig-ub la nga Pananum han Magdig-on nga mga Tanum ngan han Magdali Anihon

(1) Mahihirutan an unob nga kama-upay han tuna kon tig-ub an magdali nga mga tanum ha sirong han mag-dig-on nga mga tanum.	5	4	3	2	1
(2) Damo nga puno hin tanum an makakasiya hin haligot la nga tuna kon tig-ub an magdali nga mga tanum ha sirong han magdig-on nga mga tanum.	5	4	3	2	1
(3) An kamahinay han pagtubo han magdali nga mga tanum ha sirong han magdig-on nga mga tanum, maaabat la kon dagko na ngan may produkto na an magdig-on nga mga tanum.	5	4	3	2	1
(4) Nakakadiskanso an para-uma han pa-ulit-ulit nga pag-dinalos kon tig-ub niya pagtanum an magdig-on nga mga tanum ha bukid nga iya guintatanman hin humay, mais ngan duma.	5	4	3	2	1

(5) Damo an produkto ngan dako an "income" kon dungan ngan tig-ub pagtanum an mag-iha ngan han magdali nga mga tanum.	5	4	3	2	1
Total Frequency					
Grand Mean					

COMPUTATION OF THE SUM OF SQUARES FOR THE ANALYSIS OF VARIANCE

$\Sigma X = 53.45$

$\Sigma X^2 = 214.05$

$\bar{X} = 3.56$

$N = 15$

$r = 5$

$$C = \frac{(\Sigma X)^2}{N} = \frac{(53.45)^2}{15} = \frac{2856.9025}{15} = 190.46$$

$$SSTotal = \Sigma X^2 - C$$

$$= 214.05 - 190.46$$

$$= 23.59$$

$$SSBetween = \frac{\Sigma(\text{Group Total})^2}{r} - C$$

$$= \frac{11.75^2 + 22.31^2 + 19.39^2}{5} - C$$

$$= \frac{1011.7707}{5} - 190.46$$

$$= 202.35414 - 190.46$$

$$= 11.89$$

$$SSWithin = SSTotal - SSBetween$$

$$= 23.59 - 11.89$$

$$= 11.70$$

B I O D A T A

B I O D A T A

Name : **Feliciano V. Sadullo**

Date of Birth : April 14, 1938

Place of Birth: Ngoso, Gandara, Samar

Father : Mateo B. Sadullo, from San Andres, Villareal, Samar

Mother : Escolastica B. Versoza, from Himay, San Jorge, Samar

Grew Up In : Himay, San Jorge, Samar

Elem. Educ. : Blanca Aurora Elementary School, San Jorge, Samar, 1954

Secondary Educ: Samar National Agricultural School Matalud, San Jorge, Samar, 1960

College : Samar Institute of Technology (SIT), now U.E.P., University Town, Northern Samar

Graduate Educ.: U.P. Los Baños, Laguna, 1979-1980 and SSPC, Catbalogan, Samar, 1990-1993

Previous Employment: Elem. Grade Teacher, Tomogbong, San Jorge, Samar, 1964-1975

: Secondary School Teacher, SNAS, San Jorge, Samar, 1975-1976

: Jr. College Instructor, SNAS, San Jorge, Samar, 1976-1987

Present Position: Instructor II, Samar National Agricultural School, San Jorge, Samar 1987-present

Civil Status : Married to Purificacion B. Marcial (BSEEd.) from San Andres, Villareal, Samar

Siblings : Gaudencio, 26, B.S.I.E. student, major: Electronics

: Ruben, 23, B.S.I.E. student, major: Industrial Arts

: Josephine, 21, B.S.M.T. graduate, DWU, Tacloban City, 1992

: Perla, 20, B.S.I.E. graduate, SSPC, Catbalogan, 1993

LIST OF TABLES

LIST OF TABLES

LIST OF TABLES
(cont'd.)

LIST OF FIGURES

LIST OF FIGURES