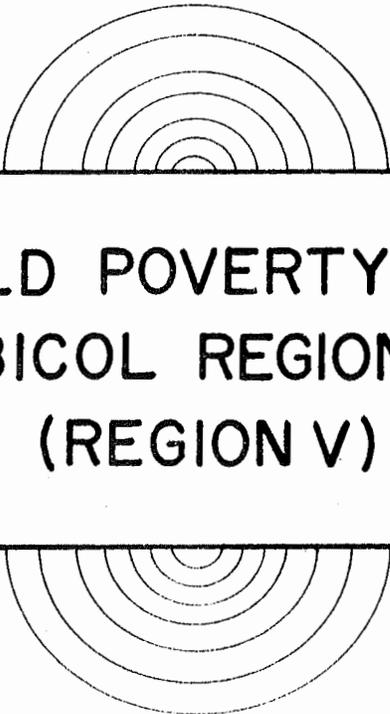


DRAFT



HOUSEHOLD POVERTY PROFILE
BICOL REGION
(REGION V)

USAID/PHILIPPINES
November 1981

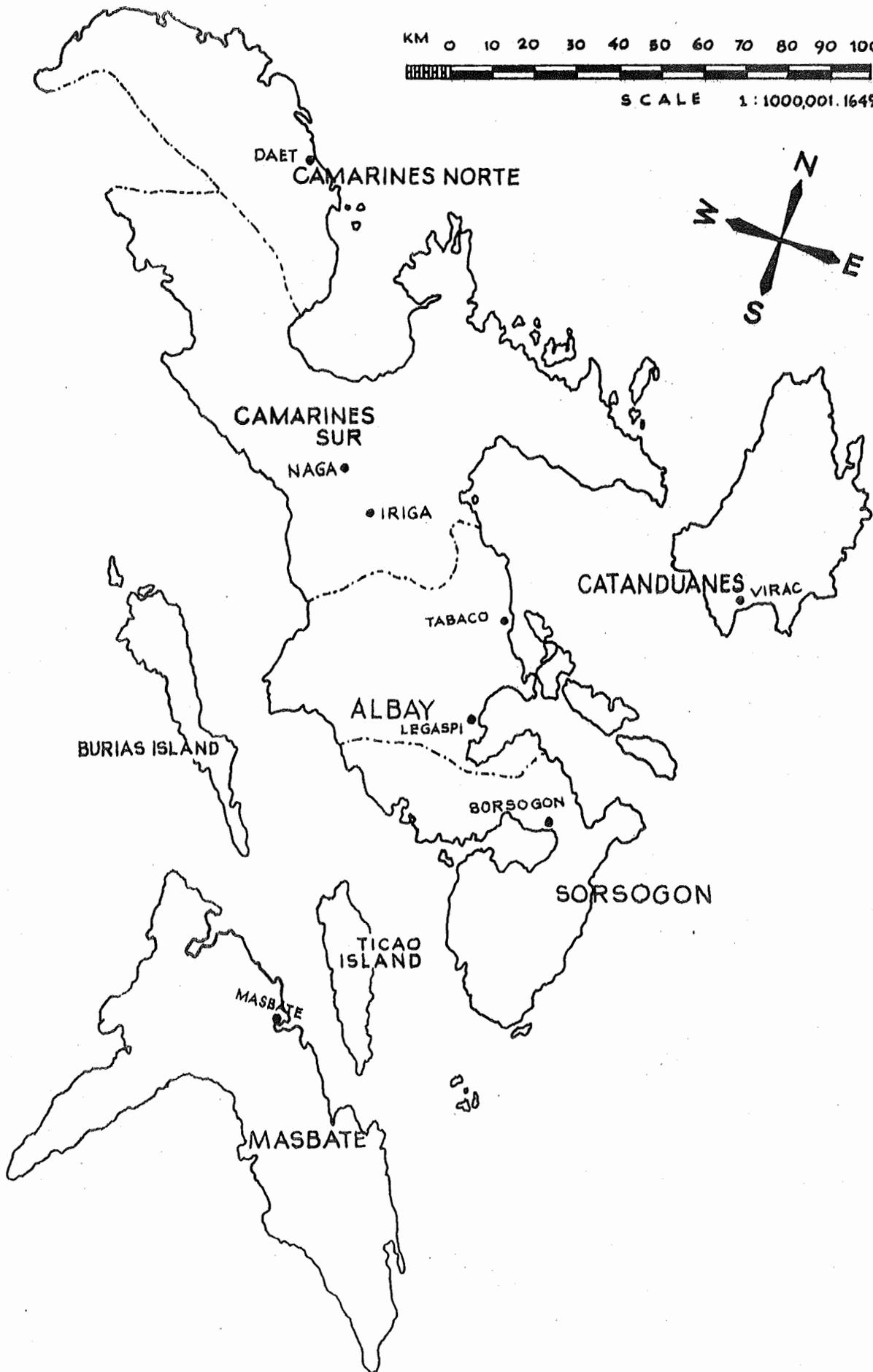
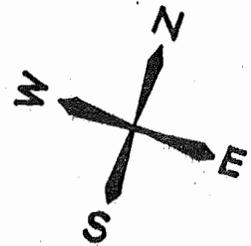
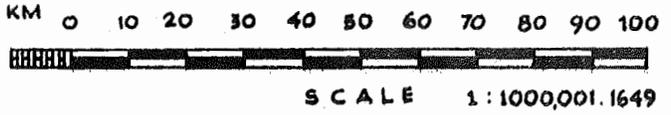
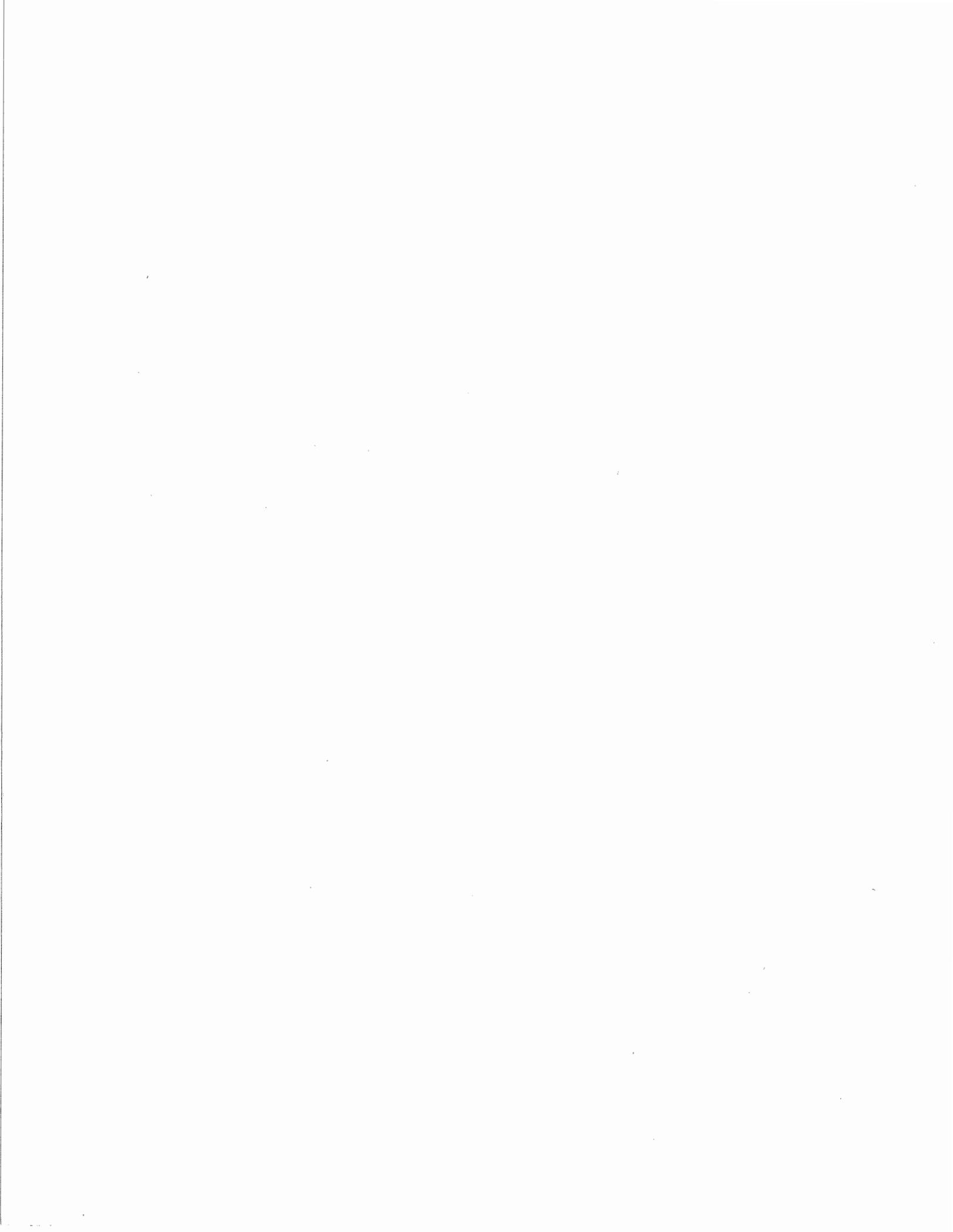




TABLE OF CONTENTS

	Page
Map of the Bicol Region	
I OVERVIEW	1
The Poor in Bicol	3
Sociocultural Factors Affecting Bicol Farmers	10
II DIVERSIFICATION: THE RURAL HOUSEHOLD'S STRATEGY FOR SURVIVAL	14
A. Coconut Farmers	19
B. Upland Other Crop Farmers	24
C. Landless Rural Workers	28
D. Rainfed Farmers	31
E. Upland Rice and Corn Farmers	35
F. Landless Fishermen	38
III SYNTHESIS	41
BIBLIOGRAPHY	50



HOUSEHOLD POVERTY PROFILE
BICOL REGION
(REGION V)^{1/}

I. OVERVIEW

The Bicol Region is located at the southernmost tip of Luzon, the country's largest island. It comprises six provinces, 3 cities and 113 municipalities over an area of 1.76 million hectares. Two of the provinces are islands off the eastern and western coast of the Bicol peninsula.

Of six climatological types in the country four are present in the region, with most areas characterized by a pronounced rainy season. In addition to the generally wet climate, the region experiences an average of 12-14 tropical storms, depressions or typhoons a year, owing to which residents can expect crop damages in any year.

Bicol is a generally mountainous and hilly region with few stretches of flat lands. These are mostly in Camarines Sur and Albay. Its coastline is deeply embayed and with the presence of four lakes and a multitude of rivers criss-crossing the whole area, many residents have some access to fishing. Combining topographical traits with access to river, lake and sea, gives us a picture of what general type of agricultural occupations to expect in the area and where the population concentrates. Rice farming

^{1/} The report draws heavily on a number of sources. Part I information comes from data collated from various government documents. See Novick, Paul, Agricultural Profile and Assessment: Region V, USAID/Manila, Philippines, 1980. Data on incidence of poverty are drawn from the 1980 World Bank Report, Aspects of Poverty in the Philippines: A Review and Assessment.

Part II relies primarily on selected surveys and reports prepared by the Institute of Philippine Culture and the Social Survey Research Unit for the Bicol River Basin Development Program. Information classified by poverty groups are taken from the Bicol Multipurpose Survey (BMS) 1978, which covered the provinces of Albay, Camarines Sur and Sorsogon.

predominates in the lowlands and coconut in upland regions, while fishing is found in coastal areas. Historically, population centers began in lowland areas especially those with access to water transport..

In 1980 the National Census and Statistics Office set regional population at 3.47 million, of which 83 percent reside in rural areas. The average household size is 6.04. With 8.2 percent of the national population, the Bicol ranks 7th largest region. Its population density of 197 persons per square kilometer is higher than the national average of 160/sq. km. The regional annual growth rate of 1.66 percent during the period 1975-80 is lower than the country's in general (2.64 percent).

Literacy figures vary depending on one's source, but all are invariably high (range: 86-90 percent). Bicolano household heads, however, on average complete less than 6 years of formal training, the equivalent of an incomplete elementary education. The irony of the educational system is that although many have gone to school at one time or another, the training received is seldom relevant to the future occupations of most residents; that is, training in the elementary grades prepares one for the secondary level, in turn leading to college education. Education, therefore, is oriented towards urban employment. Since most rural residents end up farmers, the brief training received may not be the most appropriate for them.

The NCSO reports a regional absolute unemployment rate of 4-7 percent annually, which is low when the figure is not set against a background of heavy underemployment. Selected studies in the Bicol estimate underemployment at 46 percent of all employed. The same studies report that incidence of underemployment is greater in rural areas where agricultural occupations prevail. Additional detailed information on provincial characteristics are presented in Table 1, by way of background for the remainder of the report.

The Poor in Bicol

The 1980 World Bank Poverty Study situates the poor in Bicol in the rural areas. Of an estimated 242 thousand families receiving incomes below the poverty line in 1971, 95 percent are in the countryside, outside of province and municipal centers. Thus, in terms of sheer numbers, Bicol ranks as the fifth most depressed area in the Philippines. Measured against the incidence of poverty, Bicol ranks fourth.

The study further breaks down the poor by occupation and major industrial sector. As a whole 48.8 percent of all occupation categories are impoverished. Disaggregating those in agriculture, we see different patterns.

TABLE I

REGION V PROVINCIAL PROFILE ^{1/}

Province/ Land Area (000 has.)	Topography	Climate 2/ Rainfall	Land Capability	Land Distribution	Population 1980 (000)	HH size 1975	POP. DISTRIBUTION % Urban % Rural	Pop. (1980) Density ₂ per Km ²	Annual Pop. Growth Rate 75-80
Albay 255.3 (14.5%)	A 27% B 15 C 20 D 19 E 19	A, B1 C1, C2 2,775 mm	M 77% De 8 Bw 7 A 5 Other 4	-average farm size is 3.0 has. -77% of farms are below 3 has., and cover 38% of area culti- vated -tenancy 35%	803 (23.2%)	6.01	13% 87%	315	1.96
Lamarines Norte 211.2 (12.0%)	A 10% B 1 C 39 D 9 E 40	B1, C2 3,750 mm	M 85% A 10 Bw 3 Other 2	-average farm size is 6.2 has. -46% of farms are below 3 has., and cover 11% of area culti- vated -tenancy 36%	308 (8.9%)	6.08	23% 77%	146	1.32
Camarines Sur 526.7 (29.9%)	A 19% B 8 C 28 D 10 E 34	C1, C2 D1 2,625 mm	M 83% Bw 14 A 2 Other 1	-average farm size is 3.6 has. -73% of farms are below 3 has., and cover 30% of area culti- vated -tenancy 34%	1,100 (31.7%)	6.20	21% 79%	209	1.45
Catanduanes 151.1 (8.6%)	A 56% B 8 C 33 D 2 E 9	A, B1 D1 2,950 mm	M 83% Cw 10 Bw 5 Other 2	-average farm size is 2.7 has. -80% of farms are below 3 has., and cover 45% of area culti- vated -tenancy 8%	176 (5.1%)	6.02	18% 82%	116	0.33
Masbate 404.8 (23.0%)	A 4% B 17 C 9 D 21 E 55	B2, C2 D2 2,225 mm	M 54% N 17 De 17 Bw 7 X 4 Other 2	-average farm size is 3.8 has. -66% of farms are below 3 has., and cover 26% of area culti- vated -tenancy 24%	580 (16.7%)	5.83	12% 88%	121	1.71
Sorsogon 214.4 (12.2%)	A 11% B 28% C 7 D 6 E 48	B1, C1, C2 3,175 mm	M 50% De 36 Bw 7 Other 7	-average farm size is 3.5 has. -71% of farms are below 3 has., and cover 31% of area culti- vated -tenancy 41%	500 (14.4%)	5.98	19% 81%	233	2.27
Region 1,763.5 (100.0%)	A 17% B 15 C 19 D 13 E 36	Average of 12 storms and typhoons per year 2,925 mm		-average farm size is 3.7 has., -72% of farms are below 3 has., and cover 29% of area culti- vated -tenancy 32%	3,467 (100.1%)	6.04	17% 83%	197	1.66

Footnotes to accompany Table 1.

1/ Data for this table are pieced together from a number of sources as follows: NMYC (1975); UPLB and ERS (1974); Weather Bureau; Bureau of Soils; and NCSO.

2/ Slope categorization:
A over 30%; B 15-30%; C 8-15%; D 3-8%; E 0-3%

3/ Climate type:
A wet; B Humid; C Moist; D Dry

4/ Land capability:
M limited to pasture or forest;
N limited to forestry;
X limited to wildlife;
A very suitable for cultivation;
Bw suitable for cultivation
C_e moderately suitable for cultivation;
D_e suitable for limited cultivation;
Other marsh lands, urban areas, etc.

Table 2. Incidence of Poverty in Selected Agricultural Occupations (Bicol Region, 1971)

<u>Selected Agricultural Occupation</u>	<u>% Poor</u>
Farmer owner	59.5
Farmer part-owner	57.8
Farmer Tenant	66.1
Farmer not specified and tuber gatherers	73.9
Farm laborer	80.0
Fishermen	55.6

The data invariably show greater incidence of poverty among those in agriculture. Without exception, agricultural categories have significantly more poor families than the rest of Bicol society.

Another way of viewing this is by segregating agricultural workers into sub-sectors. Four rural sub-sectors are identified: rice and corn farming, coconut farming, other crops, and fishing.

Table 3. Incidence of Poverty in Selected Agricultural Sub-Sectors (Bicol Region, 1971)

<u>Sector</u>	<u>% Poor</u>
Rice and Corn Farming	60.8
Coconut Farming	70.3
Other Crops	76.6
Fishing	55.6

A review of Tables 2 and 3 suggests that even among the rural poor, people can still be rearranged in a hierarchy of poverty, some groups being more prone to it than others. For

instance, the landless, those cultivating crops other than rice, and farm tenants are in general more impoverished than fishermen or owner-cultivators.

The next step is to arrive at an estimate of the number of poor households in the region as of 1980. To do so, we made a couple of assumptions. First, we assumed that proportions of the poor in different occupations and agricultural sub-sectors in 1980 do not vary significantly from what they were in 1971.^{2/} Second, using results of a survey of Bicolano household heads in three heavily populated provinces in the region (the combined population of Camarines Sur, Albay and Sorsogon accounts for 69.3 percent of the Bicol's), we assumed that sub-population breakdowns identified in the study would not vary widely from what is found at the regional level.^{3/}

The Bicol Multipurpose Survey identifies 7 major agricultural household types. Using these and results of the World Bank Study we made regional estimates as to their numbers and the percentage of poor in each. Table 4 shows the details.

^{2/} Poverty incidence rates referred to are drawn from the 1980 World Bank Poverty Report, Table 1.5: Poverty Incidence By Industrial Sector, 1971.

^{3/} Comparison of WB and BMS figures shows minor differences. WB reports slightly more rice/corn and other crop farmers, and fewer coconut farmers and fishermen than the BMS. Both report the same proportion of landless workers.

Table 4. Household Population Estimates, the Proportion of Poor Households and Average Annual Incomes in Seven Selected Rural Agricultural Groups (Bicol Region, 1980)

	<u>No. of Households</u>		<u>No. of Poor HHs</u>	<u>Average Net Annual* HH Income</u>
Rainfed Rice and Corn Farmer	58786	16.9%	35742	₱4,124
Irrigated Rice Farmer**	98856	28.5%	60104	4,518
Upland Rice and Corn Farmer	17399	5.0%	10579	3,944
Coconut Farmer	95165	27.4%	66901	3,825
Upland Other Crop Farmer	16344	4.7%	12520	2,670
Fishermen	41388	11.9%	23012	4,735
Landless Laborer	<u>19244</u>	<u>5.5%</u>	<u>15395</u>	3,646
TOTAL	347182	100.0%	224253	

* Source: Bicol Multipurpose Survey, 1978.

** Comparing 1971 NCSO figures with our estimates shows a major increase in the number of irrigated farms not explainable by normal population increase. In part this may be due to two factors: definition and sample selection differences. The study defines irrigated farm households as all those with any irrigation, necessarily enlarging proportion of irrigated rice farm population vis-a-vis non-irrigated rice farms. Moreover, the study is based on a sample drawn from Albay, Camarines Sur, and Sorsogon, the three Bicol provinces reporting the largest numbers of irrigated rice farms in contrast to Camarines Norte, Masbate and Catanduanes. Thus, the aggregate effect increases the population of irrigated farm households beyond that normally expected.

Even among those farms classified as irrigated, low dry season yields indicate that most of the irrigation is relatively ineffectual and that these farmers probably belong to the rainfed rice farmer category.

Table 5. Major Agricultural Groups in the Bicol Ranked According to Percent of Poor Households and Percent of Income Increase Required to Reach the 1978 Poverty Line (Bicol Region, 1980)

<u>Agricultural Subsector</u>	<u>% of Rural Poor</u>	<u>Rank</u>	<u>% Increase Required</u>	<u>Rank</u>	<u>Summation of Ranks</u>	<u>Overall Rank</u>
Coconut	29.8	1	79.7	3	4	1
Upland Other Crop	5.6	6	157.4	1	7	2
Landless Worker	6.9	5	88.5	2	7	2
Rainfed Rice and Corn	15.9	3	66.7	5	8	3
Irrigated Rice	26.8	2	52.1	6	8	3
Upland Rice and Corn	4.7	7	74.3	4	11	4
Landless Fishermen	<u>10.3</u>	4	45.2	7	11	4
TOTAL	100.0%					
N	224253					

1978 Rural Poverty Line (National)*: ₱6873

*Source: FY 1982 CDSS.

For purposes of later discussions, the groups are ranked according to two criteria, proportion of poor households and degree of relative poverty (as indicated by percent of income increase needed to reach the 1978 poverty threshold).^{4/} Summing the ranks gives us a rough indicator of which the more significant poverty groups are. See Table 5.

^{4/} Poverty threshold referred to comes from the FY 1982 CDSS. The computed poverty line of ₱6873 proposes that households receiving this amount annually would have the means to spend for the minimum nutritionally adequate diet for a household of six costed at 1978 prices. Households receiving less are considered absolutely poor.

Ranked first are the coconut farmers. As a group they have the largest number of poor households and rank third in degree of relative poverty. To approximate the poverty line coconut farmers must increase annual revenues by 80 percent. Tied in second are upland-other-crop farmers and landless rural workers. Although both comprise relatively small poor populations, they nevertheless need the highest income increases to reach the poverty threshold.

Again two groups are in third, irrigated and rainfed rice farmers. The poor in these form the second and third largest population groups yet on average receive higher incomes than the preceding groups. Upland rice and corn farmers and landless fishermen rank fourth. The former have the smallest number of poor households whereas the latter are reported to have the highest average income.

Succeeding sections will deal with each group as ranked. Irrigated rice farmers have been excluded from further discussion in line with the CDSS focus on other target groups. Their exclusion however, should not presuppose that few of the poor are found in the group. In fact, our figures show otherwise. Moreover, although these farmers report use of irrigation, the facilities used nevertheless do not operate at their best.

Sociocultural Factors Affecting Bicol Farmers

Before proceeding with the discussion of targetted poor groups, let us digress and talk about some social factors affecting the

Bicolano's decision-making process. We refer especially to values in as much as these are the criteria for much of human behavior.

The Bicolano farmer may be viewed from several perspectives. He is a Filipino, a Bicolano, and a farmer with a long history of peasantry. Each perspective carries with it its own behavioral patterns which at times are supportive of patterns found in others, and at other times, are contradictory. What we will portray below are some of the cultural goals of Bicol farmers that arise from their being a Bicolano and a farmer at that.

During the 1960's the Anthropologist Frank Lynch identified three cultural goals that appear to guide much of Filipino behavior.^{5/} These are social acceptance, economic security, and social mobility. He defined social acceptance as "to be accepted by one's fellows for what one is, thinks himself to be, or would like to be, and be given the treatment due to one's station;" economic security as "the extent to which an individual possesses the material things necessary to satisfy his needs and his family's at least without having to borrow from others;" and social mobility, as "moving higher in the socio-economic scale." In 1976, Lynch further refined his concepts especially with reference to the goals of adult Bicolanos. The factors identified along with related desirable behavior are shown in Table 6.

^{5/} Lynch, Frank, Social Acceptance Reconsidered, In Four Readings on Philippine Values, Frank Lynch and Alfonso de Guzman II, eds. "IPC Papers," No. 2. Fourth edition, enlarged. Quezon City, Ateneo de Manila University Press.

Of all the goals identified, economic security appears to be most relevant to later discussions on how the poor survive. Although all men, regardless of their cultural origin, are expected to seek economic security, its substance would nonetheless be expressed differently from one culture to another. Two things, therefore, have to be considered when relating the variables of economic security and the Bicolano's methods of survival. First,

Table 6. Major Value Factors of Adult Bicolanos, with Related Desirable Behavior (Bicol River Basin, Camarines Sur, mid-April, 1974)

<u>Factor</u> ^{a/}	<u>Desirable Behavior</u>
1. <u>Good Provider</u>	To have a respectable job and an adequate income and so keep myself and my family in good health.
2. <u>House and Home</u>	To have a sturdy home, adequately furnished, and sufficient food and drink on the table.
3. <u>Status and Esteem</u>	To achieve and enjoy relatively high status and favorable esteem among my fellows, and to be known as one who has reached many places -- who has travelled.
4. <u>Social Participation</u>	To participate comfortably and enjoyably in small-group activities and community affairs -- and perhaps even in formal organizations.
5. <u>Education</u>	To have my children and myself get as much formal education as possible.

^{a/} Factors 1 and 2 appear to be components of the value of economic security, mentioned earlier. Factors 3 and 4 relate to social acceptance, while Factors 3 and 5 (education) may reflect the broader value of social mobility.

Source: Frank Lynch, S.J., Jeanne F.I. Illo, and Jose Barrameda, Jr., Let My People Lead: Rationale and Outline of a People-Centered Assistance Program for the Bicol River Basin, (Quezon City: Social Survey Research Unit, Institute of Philippine Culture, Ateneo de Manila University), p. 26.

we ask, how does he perceive economic security? Second, is the farmer's primary occupation a sufficient source to keep his household economically secure? These questions are to be treated in each of the group discussions.

On a broader scale, and as background to more specific answers in later sections, we can attempt to explain when the Bicol farmer feels he has achieved his goal, and when the peasant of whatever cultural background considers his production adequate for the household's annual needs.

In his article, Lynch claims that the Bicolano achieves economic security when he has a respectable job and an adequate income to keep himself and his family in good health and when he owns a sturdy home, adequately furnished, and there is enough food and drink on his table.

Aside from the model condition which by definition is difficult to achieve, we also must consider when the Bicolano farmer approximates economic security given the constraints set by the economic and physical environments. In his analysis of peasant farmers in different areas of the world, Eric Wolf suggests an answer.^{6/} He states that the peasant farmer aims to meet four general requirements in his productive activities. The household's annual production must provide for the minimum caloric or food requirements of the unit; it must have some surplus to maintain physical

^{6/} Wolf, Eric. Peasants. Englewood Cliffs, New Jersey. Prentice-Hall, Inc., 1966.

necessities (clothing and shelter) and the tools of their trade; it must provide for expenditures to maintain the household's social position; and, distinctive of peasants, production must have a surplus for rental of the land and other assets needed in the household's economic activities. Implied, therefore, is that economic security is achieved when the household's aggregate production meets all requirements.

The succeeding group discussions will investigate these and related questions, particularly the question: When the Bicolanos farmer perceives his primary occupation not to meet criteria of economic security, what options are then available to him?

II. DIVERSIFICATION: THE RURAL HOUSEHOLD'S STRATEGY FOR SURVIVAL

To understand poverty, one must realize that it is both an effect of the imbalances in the economic system and a way of life. As an effect of the maldistribution of wealth one explains it by determining the factors that lead to this situation, and any attempt at a solution must contend with these factors. However, poverty must not be viewed purely as an effect but also as a cause, a self-regenerating phenomenon. As a way of life poverty provides its members a way of adapting to the environment. It has built-in behavioral patterns, attitudes and values which seek to protect the individual, and help him survive.

The rest of the report delves on this subject, discussing main determinants of poverty among six major rural Bicol groups. Each

section also identifies coping mechanisms which allow farmers, fishermen and landless workers to survive in spite of poverty. A brief synthesis and concluding statements follow.

Prior to specific group discussions we propose a model explaining poverty and survival among agricultural households. The model proposes that poverty is a function of several factors, primarily that of the household's annual income. To understand the dynamics of poverty, it is imperative that one understand the elements affecting income generation among poor groups. The model that follows attempt to explain these elements. To do so several hypotheses are made. These identify those factors expected to impact on the household's income generation capacity.

The major hypothesis states that the household's annual income is a function of its ability to diversify income sources as manifested in the extent sources are actually diversified. A household's ability to diversify is itself subject to the effects of several variables external and internal. Among several, nine are included in the model, four of which the household has little or no control over while the remaining variables it can influence in varying degrees.

The first of the external variables is location, referring to the geographic and physical characteristics of the land the household lives on and farms. Second is market, which combines the characteristics of the channel through which products are sold

and the household's perception of its effectiveness. Third, is the occupation network or kinds of jobs available to rural residents. Finally, we include sociocultural factors, referring to values and attitudes and other cultural realities affecting decision-making among agricultural workers.

Five endogenous variables are also hypothesized to affect the household's ability to diversify or to the degree it in fact diversifies. Primary among these is the household's composition, referring to the size and the age structure of the unit. Second is entrepreneurial spirit among its members or their general disposition to assume risk in economic activities heretofore untried but which nonetheless are expected to improve their economic status. Third is the household's available capital or its members' aggregate savings and their access to credit. Next is land resources. By this we mean the household's access to and control over land, taking into account the size and quality of land it uses. Finally, the model includes other productive assets available to the household. The model posits that both exogenous and endogenous variables impact on ability to diversify directly or indirectly.

The concept of diversification as used in the report refers primarily to ability to diversify sources of income by making more use of land and manpower resources.

The following diagram shows how each of the variables is expected to affect others in the model and suggests the direction and

nature of relationships. Given the variables and their inter-relationships the model further points to factors accounting for the ability of agricultural households to diversify income sources. Related to the major hypothesis, it asks what happens to diversification when some of the factors are unavailable to the household or when these are available to a lesser extent. The model, therefore, asks how poor rural groups manage to survive given the variability of the factors affecting their capacity to increase income.

With the model in mind we now proceed to individual group discussions knowing full well that factors affecting income generating ability vary in each group. In doing so we begin to understand how these groups adapt to their environments and thus we should be better able to develop a set of criteria to prepare strategies for helping the rural poor.

The readers should note, however, that lack of information on all factors in the model prevents deeper understanding of their roles. Thus, the model should be viewed primarily as a guide in our attempt to understand dynamics of poverty.

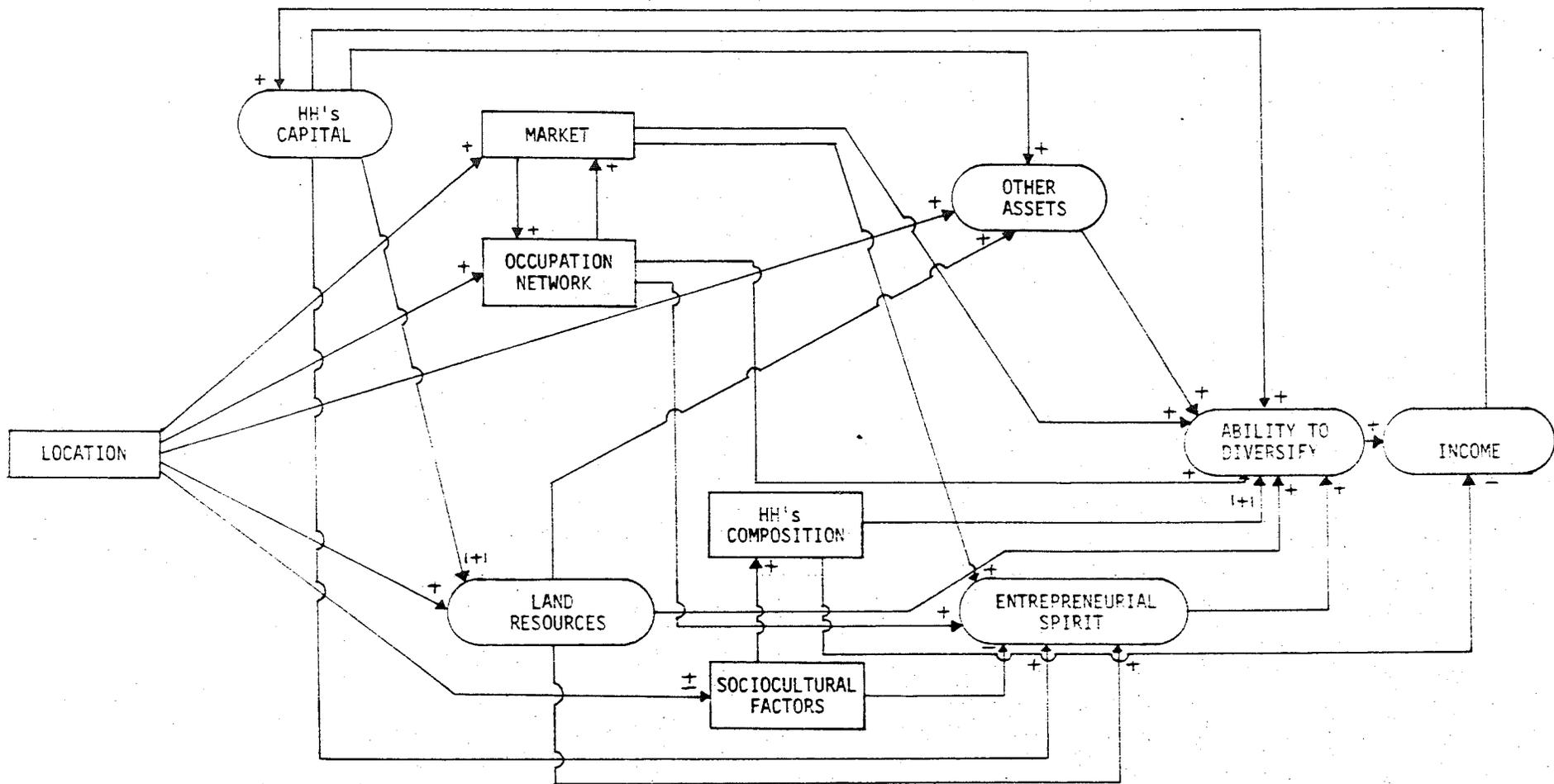


Diagram 1. Schematic diagram of factors affecting farm household's annual income.

- Legend:
- + Positive relation hypothesized between variables.
 - Negative relation hypothesized between variables.
 - I+I Positive relation reaches threshold where increase in dependent variable stops.
 - I-I Negative relation reaches threshold where decrease in dependent variable stops.
 - External variables affecting HH's income generating capacity.
 - Internal variables affecting HH's income generating capacity.

A. Coconut Farmers

Coconut farmers make-up the second largest rural group in the Bicol Region. The area's roughly 95,200 coconut farm households comprise more than one-fourth of the region's total farm population. They are found throughout the mountainous rolling hills and coastal areas of all six provinces. As a group theirs is the largest agricultural subsector in two provinces, Camarines Norte and Sorsogon, and second or third largest in the rest. As a matter of fact, in 1971, 45.1 percent of land cultivated was planted to coconut making this subsector a significant one in the region's economy.

Using World Bank estimates and Bicol Multipurpose Survey results, we estimate the number of poor households to be around 66,900 or 30 percent of all rural poverty groups. As such the poor in coconut is the largest group.

Compared with other poverty groups, the coconut farmer receives the third lowest average annual income (P3825),^{7/} and on a per capita basis, the second lowest (P571). These farmers need to increase present revenues by almost 80 percent to raise themselves over the poverty threshold.^{8/}

Many factors explain degree of poverty among coconut farmers some of which are related to the quality of land, available technology, and land tenure, while others are an outcome of a host of factors.

On average coconut farmers cultivate the largest farms (x - 5.1 has.), more than double the farms of other Bicol farmers. The majority are owner-cultivators (56 percent) making them the only group who report higher frequency of ownership. In contrast, however, farm technology is very traditional, wherein use of fertilizers, more efficient copra kilns, among others, is largely unheard of. They

^{7/} Breakdown of actual net annual income by source and farmer category is in Table 1, Annex A.

^{8/} Breakdown of potential net annual income by source and farmer category is in Table 2, Annex A.

are subject to highly erratic world-market prices and at present receive low returns from copra sales.^{9/} Further, coconut sharing arrangements between landowners and tenants in the region is the most onerous compared with arrangements practiced in other crop farms. Unlike the system practiced in rice tenancy, landowners in this sector receive the lion's share of every harvest, reaching 67-70 percent of gross copra yields. Moreover, the Bicol Region is notorious for the dreaded cadang-cadang, a coconut pest indigenous to the area. When it attacks the damage is often irreversible.

Besides these factors, household-related characteristics also aggravate the farmer's plight. Similar to other rural groups, household heads in coconut farms complete minimal education, an average of 4 years of formal training. Again lack of access to higher education, either physically or financially, prevents more training. Recent developments, for instance, scholarships provided to children of Coconut Federation members have to an extent improved the situation. Still, for the vast majority who are non-members the same situation prevails.

The household's access to markets has dual effects on its poverty status. Positively, outlets for copra are found throughout the region. The network of copra middlemen in coconut planting areas in the Bicol is a well-established system. These businessmen, often Chinese entrepreneurs, are located in province and town centers. Even in less accessible places, small copra middlemen thrive. Apparently unlike other crop farmers, coconut farmers have better opportunities to sell their products.

The system, nevertheless, has deleterious effects. On the one hand, the farther the middleman is from the center the lower the prices are. Price differentials between barangay and city buyers reach as much as 40 to 80 percent, the profit of which is absorbed by the middleman. Similar observations are reported by Cornista in the Eastern Visayas.^{10/}

^{9/} It may be suspected that low copra income is typical of the year data were gathered. However, the survey on which our information is based covers parts of 1977 and 1978, a period when copra prices range from near average to a high of P3.40/kg.

^{10/} Cornista, Luzviminda., Coconut Farmers Profile: Eastern Visayas Region, USAID/Manila, 1981.

On the other hand, because of close interaction between coconut farmers and middlemen, a patron-client relationship arises. Middlemen provide credit to farmers to be paid out of future harvests resulting in deeper social and financial indebtedness from which farmers find hard to break loose.

Aggravating their situation is the absence of opportunities to improve production. Most farmers are unaware of better technology. Those few that are informed are still constrained by scarce availability of capital. Low yields and low prices further prevent capital information, and access to credit is minimal. Survey results show within a span of one year only 23 percent of Bicol coconut farmers were able to secure a production loan.

In spite of low yearly household incomes, the coconut farmer maintains large households. The average size reported is 6.7 members, one of the highest in the region, higher in fact than the regional average of 6.04 members. Although the average annual household income fares better than that of rural landless workers, on a per capita basis coconut farmers are worse off (P571 versus P629).

All the factors cited above have one way or another obstructed better economic well-being among Bicolano coconut farmers. And yet they survive. A brief investigation of income sources tells us the varied ways these households cope with their problems.

Like most cultivators, coconut farmers have dual sources of income, those derived from their land and from off- and non-farm activities. Unlike others, however, returns from crop farming make up a larger portion of total income, amounting to 39 percent.

Crop diversification whenever resorted to helps alleviate poverty. Those with the opportunity to plant rice can increase average returns by P106; corn - P119; abaca - P164; and a variety of other crops - P1599. Added to annual coconut income of P1328, crop farming could yield a sizeable sum. But these

sources are not equally accessible to all, thus, on average farming provides the household with only P1491.

To meet basic needs, they seek other sources. The following table arranges the potential non-crop sources according to percentage of users and average returns of people with access to it.

<u>Income Sources</u>	<u>Percentage receiving income fr. source</u>	<u>Average Income</u>
Livestock and Poultry	94%	P 376
Remittances	75	700
Wage Labor	42	1901
Business	34	1492

The figures indicate two major although less lucrative income sources, and two others less frequently resorted to but providing much more. Livestock and poultry raising as in other groups is common to almost all coconut farmers (94 percent), but it provides an annual increment of only P376. A less common income source, but one the majority (75 percent) rely upon, are remittances from external sources and dole outs from more affluent relatives and friends, giving the farmer P700 additionally.

Compared with other rural residents, the coconut farmer's income from raising poultry and hogs surpasses that of landless fishermen, rural workers, and upland other crop farmers, but is significantly less than rice and corn farmers'. Apparently lack of access to animal feeds (a by-product of rice and corn farming) reduces potential for doing better, but because of larger farms coconut farmers realize larger returns from animal raising than landless folks or those with smaller farms.

Income from remittances is sizeable and triple those of all others except rainfed farmers. Implied is the possibility that more coconut farm households

send members elsewhere to work or that relatives and friends they rely on are wealthier, owing to which assistance is greater.

The more significant supplements to income comes from wages, common to 42 percent, and from which they realize ₱1901, and small business enterprises which provide ₱1492. The latter is engaged in by 34 percent of coconut farm households.

Aside from fishermen, the coconut farmers, however, have the least access to wage labor, but where they do returns are more substantial. Only landless rural workers, who by definition should get more from wage labor, and upland other crop farmers, who by virtue of unproductive land resort often to seasonal migration to lowland areas, secure more from the activity. In these places possibly because of larger farms demand for labor increases, raising the premium on hired workers.

Briefly, therefore, we observe several factors to explain poverty among coconut farmers, yet on the other hand we find others which help them survive. Inappropriate farming techniques, oppressive sharing arrangements, irregular prices, middlemen, unavailable capital, and large households contribute to their state.

Unlike other groups, control over larger farms, higher percentage of ownership, availability of manpower within the household, and better potentials for diversification given larger land and given more users of coconut by-products counter balance the negative factors. Nonetheless, because they comprise one of the largest rural groups, with the most number of poor, and because of very low per capita income, the coconut farmer deserves the greatest attention and assistance from development agencies.

B. Upland Other Crop Farmers

Upland other crop farmers are the poorest of rural Bicolanos. They are dispersed throughout the upland areas of the region but are found in greater numbers in Albay, Camarines Sur, and Catanduanes. In 1971, the NCSO situates abaca farmers in Catanduanes and Albay, and those planting rootcrops, tubers and a number of other upland crops in the three provinces already mentioned.

As a group upland farmers comprise the smallest agricultural subsector. In 1980 we estimate their household population to be 16,300 or 4.7 percent of rural residents. Of these 12,500 receive incomes below the poverty line, a poverty incidence rate of 76.6 percent. As a matter of fact results of the Bicol Multipurpose Survey suggest a higher incidence rate. The study reports average income of ₱2,670 annually. If we assume income distribution to be more or less normal within the group, the mean income reported would suggest that much more than 76.6 percent of these farmers are poor.

Two more factors indicate the degree of poverty among them. As a group they require the largest income increase just to reach the poverty threshold. Given present returns, these farmers need an income increase of 157.4 percent, or more than double the household's present yearly output. Second, assuming the household can maximize sources of income, nonetheless opportunities in the area provide limits to maximization. At best we estimate these farmers can receive ₱4,704 annually at full diversification, a figure still below the poverty line.

Several factors explain the state of impoverishment in this sector. These result from an interplay between locational characteristics and available assets. The upland other crop farmer cultivates the smallest farms among landed rural residents. On average they control 1.5 has. planted to rootcrops, tubers, fruit trees, and abaca. These, however, are not all present in every farm.

Compared with other groups, incidence of non-ownership of land is highest among upland other crop farmers. Of households surveyed, only 19 percent report ownership of farm.

Further aggravating their situation is lack of access to appropriate upland technology and poor soil quality. Historically, they have been bypassed by development activities which have concentrated on lowland areas, especially, rice farms. In the uplands, the government has done little to improve farming techniques. Declining soil has resulted from inappropriate practices, deforestation, and the absence of fertilizer use to replenish nutrients.

Aside from land-related factors there are others, typical of upland farmers, which help explain their status. Limited educational opportunities, inadequate access to markets, unavailable capital, and relatively large households, all of which add up to exacerbate their plight.

Survey results, for instance, show that household heads complete only 4 years of formal educational training. Distance from school centers and financial inadequacy prevent higher educational attainment.

The same study shows that farmer's access to market may be constrained by sheer distance. On average they travel the farthest to buy household necessities or sell their produce, walking and riding a distance of 22 kms. High cost of transportation combined with low farm yields lessens importance of the market in their economic decisions.

Aside from inappropriate technology, poor soil, and lack of tenure security, unavailability of capital further prevents improvement of their economic activities. As shown earlier, the upland other crop farmer realizes minimal returns from their work, often inadequate to meet subsistence needs. Surplus as source of capital is, therefore, impossible. In addition, usual sources of capital are beyond reach, as indicated by very low access to credit facilities. With exception of landless farm workers, farmers in this category report the lowest number securing loans

for economic improvement. In a span of one year only 15 percent were able to so.

Finally, the Bicol Multipurpose Survey shows that households in the group, although smaller than in others, are on the aggregate still large. Average household size reported is 5.9 members, only slightly smaller than the regional average of approximately 6 members. When viewed from the perspective of per capita income, we observe that theirs is the lowest, P453 annually.

In the concrete how do these limitations affect their survival strategies and success in coping with poverty. A review of annual income figures and various sources of livelihood provide us a clearer picture of their status.

Upland other crop farmers have two major sources of income, crop farm and non-crop farm activities. Ironically, although these farmers perceive farming as their primary occupation or as the occupation to which the household head devotes much of his economic time, nonetheless, yields from farming account for only a minor portion (11.4 percent) of the household's yearly income. The bulk (88.6 percent) come from a combination of several non-farming activities.

The kinds of crops planted vary from farm to farm. The more significant crops are abaca, rootcrops, tubers, fruit trees, among others. Only 18 percent are reported to plant abaca, from which they draw P137 annually. The majority (63 percent) who plant a mixture of other crops net P442 yearly.

Because of meager crop returns, to survive the upland other crop farmer must seek non-farm income sources. The following table arranges possible off farm and non-farm sources according to most frequent use along with average net returns received by those with access to the source:

<u>Income Source</u>	<u>Percentage receiving income fr. source</u>	<u>Average Income</u>
Livestock and Poultry	89%	₱ 23
Remittances	77	227
Wage labor	58	2434
Business	37	931

The two most common supplementary sources are livestock and poultry raising and remittances from outside the household. The amounts received, however, suggest that both do not impact on the farmer's day to day expenditure patterns. Whenever opportunity allows, the more significant additional sources are hiring out labor of household members and engaging in small business enterprises. Households which hire out services (58 percent) net ₱2434 annually and those engaging in business (37 percent) receive ₱931, making these sources important for subsistence. Returns from fishing are also sizeable, we nevertheless do not have information on the number who have access to it. (See Annex Tables 1-2.)

Income figures indicate patterns relevant to the state of poverty among upland-other crop farmers. First, we observe that farmers cannot rely purely on farming -- to do so would lead to even greater impoverishment. Second, even if we should assume all to have the opportunities listed above, cumulative yields from all sources would nonetheless not raise their income above the poverty line, suggesting that in the uplands there are factors preventing even minor income improvements. Third, since many do not have access to wage labor and business, we, therefore, expect a significant portion of upland other crop farmers to be among the poorest in the region. Fourth, owing to all of these, the upland farmer must be on constant lookout for any additional source in order to survive.

C. Landless Rural Workers

One significant factor distinguishes landless rural workers from all others. Not having control over land or other productive assets landless laborers depend heavily on economic activities of others for their livelihood. As a group they are dispersed throughout the Bicol Region yet concentrate in rice producing areas. Nevertheless, they are also found among coconut farmers, fishermen, and in the uplands. Wherever one finds landless households, a phenomenon which increases with population growth, a related increase in hired-laborers is likely to occur.

In 1980, households headed by landless laborers were estimated to be 19,200 or 5.5 percent of rural residents. As the fourth largest rural group, they surpass only the upland groups by a small margin and are significantly smaller than all others.

In 1971 the World Bank reports the highest incidence of poverty among hired laborers, 80 percent of whom receive incomes below the poverty line. Assuming a similar incidence rate in 1980, we estimate the number of poor to be 15,400 households or 7 percent of all the rural poor.

On the average landless workers receive the second lowest annual household incomes, ₱3646, but given smaller households, their per capita income of ₱629 ranks third highest. Individually household members fare better than upland groups and coconut farmers. Nonetheless, to reach the poverty line, the landless must have an income increase of 89 percent on present returns, the second largest required to do so. Further aggravating their status of poverty is that given available economic opportunities, if we should assume full diversification of income sources, there still would only be minor increases in total annual household revenues.

Many factors account for degree of poverty among the landless, several of which are mentioned below. Primary among these is landlessness -- and its consequences on the household's livelihood. Unlike landed groups and fishermen, hired laborers have no control over their production assets. To survive they must seek out farmers or fishermen in need of their manual services. A number of elements, however, limit their options. First is the occupation and geographic location of the person they work for. If the landless household head resides in the lowland, among rice farmers, he may have more employers to choose from because of greater demand for hired workers in rice and corn farms. In other groups there may be less opportunities. Second is existing farm technology. San Andres (1978: 27) for instance, observes that irrigated farms in Camarines Sur utilize more hired laborers than non-irrigated farms. A third factor is the seasonality of farm activities. Dependence on economic activities of other groups subjects the landless to the seasonal rise and decline of demand for labor in other groups. Unlike farmers and fishermen, however, they have few fall-back mechanisms to rely on during off season. Finally, income of neighbors affect their occupational opportunities, wherein a decline in revenues necessitates less reliance on hired laborers for manpower needs and greater dependence on unpaid family workers. Residing with poorer potential employers reduces employment opportunities.

These are among the many factors affecting employment of the landless and which basically is an off-shoot of their lack of control over productive assets. Aside from this, three other factors help explain their poverty: education, capital and household size. Bicol Multipurpose Survey results show that hired workers attain the lowest educational level of all groups. On average landless household heads finish 3 years of formal training, almost 3 years less than the average Bicolano household head. One reason for this is that landless workers may themselves be children of landless workers or of farmers with highly

fragmented land, owing to which early on, even as young children they may have been forced to quit schooling to work in the field effectively excluding themselves from the little education available to rural folks. Landless workers cannot, therefore, fall back on education to assist them secure better employment.

Low and irregular sources of income eliminate the possibility of capital formation. What is earned is often spent before the day is over. Besides employment and remittances from external sources, the only other possible source of capital is credit. Lack of collateral prevents them from securing any. As reported in the Bicol Multipurpose Survey, these workers are the only ones who did not report having secured a loan for investment reasons during the year preceding the study. However, high indebtedness to friends, relatives, employers, and moneylenders can be assumed.

Finally, although households in the sector are the smallest, the average size of 5.8 members still is large, and in fact is only slightly smaller than the regional average. Moreover, since these households are headed by younger people, there is a possibility that the household size is not yet completed and is in the process of being enlarged. Relatively large households coupled with low incomes worsen their poverty.

Because of landlessness, rural workers are forced to survive primarily through hired out labor and other activities not requiring land. The following table presents potential sources of income, frequency of use, and the average returns of households with access to each source:

<u>Income Source</u>	<u>Percentage receiving income fr. source</u>	<u>Average Income</u>
Wage Labor	100%	₱3060
Remittances	85	247
Livestock and Poultry	78	242
Business	29	651

The figures indicate that landless workers have the least diversified sources of income. Aside from the head's primary occupation and remittances from external sources households report earnings from two economic activities, livestock or poultry raising and small business enterprises. The former, engaged in by 78 percent, adds ₱242 to household revenues, while the latter provides ₱651 yearly. Business enterprises is common only to 29 percent of all landless farmers.

Wage labor income amounts to ₱3060 annually. Compared with other primary occupations it appears to provide the highest average returns, but what it fails to show is the irregular flow of income from this source and the fact that during lean months the household may not have any other source to fall back on.

D. Rainfed Farmers

Rainfed farmers in the Bicol Region form one of the largest rural groups. Having a household population of 58,800 in 1980, they rank third largest following irrigated and coconut farmers. They are dispersed through most of the lowland areas of the six provinces with rice farmers found primarily in Camarines Sur, Albay and Sorsogon, and corn farmers in Masbate and Camarines Sur. Palay is either primary or secondary crop in all provinces except Masbate.

In 1971, the area planted to palay covered 21.4 percent of cultivated land. Although cultivating less than the hectareage planted to coconut, palay farmers as a whole form a significantly larger group than coconut farmers. During the same year, the World Bank estimates incidence of poverty in the sector at 60.8 percent, and translated into 1980 figures, we expect 35,700 rainfed farm households to receive incomes below the poverty line, or 16 percent of all rural poor. Among the groups discussed in this report they, therefore, comprise the second largest poor group, almost equal the combined total of poor in the uplands

plus all landless rural workers. If, however, a large portion of the poor farmers classified in the irrigated rice group, who comprise 27 percent of all rural poor families, are included here on grounds that their "irrigation" is ineffectual, then the rainfed farmer group would be the largest poor group possibly 40%

Surveys in 1978 set rainfed farmer's income at P4,124 annually, derived from a number of economic activities and remittances to the household. Earnings fall short of the poverty threshold and need a 66.7 percent increase to make it. If, however, we assume that access to all sources is possible for every household (which of course it is not), the potential annual income would average roughly P8,600, effectively raising rainfed farmers above the poverty line.

Like other rural residents, a number of factors explain their economic state, but essentially poverty is explained by low farm productivity, which in turn is a consequence of the following. First, owing to increasing population rainfed farms have rapidly fragmented. Whereas in 1971, the average rice farm size was 2.64 hectares, the 1978 survey reports a smaller average of 1.6 hectares.

Tenancy is again another problem. In spite of the inroads of agrarian reform, only 32 percent of farmers claim themselves to be owner-operators, the rest are either tenants or leaseholders. Sharing arrangements in tenancy relationships range from one-third to one-fourth of harvest going to landowners; whereas lease arrangements, one which requires a fixed rental in kind for every hectare occupied, do not often work well in rainfed farms where harvests fluctuate with the weather. Successive crop failure gradually deepens indebtedness to landowners.

Farm technology practices are a mixture of modern and traditional methods. Although rainfed farmers apply various fertilizers and farm chemicals to improve production, non-access to irrigation facilities negate the improvements or at

best minimize the role of fertilizers and chemicals. Use of technical inputs may in fact be going down because of increasing prices. San Andres (1978:81) reports that between the years 1974 and 1977 there was a significant decrease in fertilizer and chemical use among rainfed farmers although expenses increased.

Increasing cost of hired laborers is yet another factor. Although farm-gate prices of palay have not significantly increased during the past five years, cost of labor did. Given low farm yields, the rainfed farmer is hardly able to afford hired laborers. Rather he uses unpaid family workers, which is an incentive to having large households.

A combination of these factors prevents higher net returns. The Bicol Multipurpose Survey, for instance, reports that rainfed rice farmers net ₱358 from palay per farm, including the value attributed to household labor, while corn farmers as a matter of fact incur a net loss.

Besides factors affecting production others still aggravate rainfed farmer's state of poverty. Large households, little access to appropriate education, unavailability of capital further worsen their situation. Studies show that these farmers have households larger than the regional average size. Among them, a large household may be a perceived necessity in as much as any capable member can provide labor in their field.

As in other groups, the average educational attainment of household heads is low (\bar{X} = 5 years) and inappropriate for their occupation.

Finally, studies in the Bicol show that of all rainfed farmers interviewed, only 34 percent report having secured a loan for production purposes in a 12 month period. The rest rely on whatever surplus is available from the preceding season's harvest to finance their activities, or from other economic activities of the household.

When the primary crop, in spite of the time spent on it, produces so little, the household must seek other sources to help it make ends meet. Like other

landed groups, rainfed farmers generally draw income from diversified uses of land and manpower.

Crop diversification is, however, minimal. Only 20 percent report planting a mixture of other crops, such as vegetables, root crops, fruit trees and the like. The few who do realize sizeable earnings of P2,565 annually.

By far the most common strategy for survival is to engage in various non-farm activities. The succeeding table presents potential sources, percentage of people who engage in them, and net returns from each activity.

<u>Income Sources</u>	<u>Percentage receiving Income fr. Source</u>	<u>Average Income</u>
Livestock and Poultry	89%	P 925
Remittances	75	952
Wage Labor	51	1,483
Business	31	2,649

The same patterns observed in all other rural groups are found among rainfed farmers. Livestock and poultry raising and contributions of non-household members are the most frequent sources of additional income. The 89 percent who raise some animals, earn an increment of P925, the largest reported from this source with exception of irrigated rice farmers. Apparently, availability of animal feeds -- a by-product of rice and corn farms -- makes possible raising more farm animals.

Seventy-five percent of all households are reported to receive dole-outs or remittances from relatives who they have sent elsewhere to work, or from those better off. Again, among rainfed farmers income from this source is the largest averaging P952 per year.

Hiring out labor of household members and engaging in small business enterprise are better supplementary sources. Fifty one percent report income from wage-labor from which they average P1,483. Compared with all other groups, the rainfed farmer's earnings from hired labor is one of the smallest, with only fishermen reporting lesser returns.

Apparently, the increasing costs of labor and low yields prevent rainfed farmers from hiring more people from their own sector. They would rather rely on unpaid family workers. Moreover, since activities in neighboring farms -- such as, land preparation, transplanting, harvesting, among others -- occur in similar periods, there would be competition for available workers necessitating household members to work first on their farm as unpaid workers.

The best supplementary source, common to 31 percent, is to engage in business. Returns from this activity amounts to P2,649 annually. In this group, small business refers primarily to sari-sari stores, found in all rural barangays. These stores are often managed by housewives and daughters of farmers.

Like other rural groups, rainfed farmers are subject to similar constraints. Low productivity, inadequate technology, large households, inappropriate education, among others, prevent improvement of quality of life. Nonetheless, a judicious use of available assets, such as available manpower, offset the constraints to an extent. From their perspective, the minimal incomes realized may be enough to at least meet the household's yearly requirements.

E. Upland Rice and Corn Farmers

Upland rice and corn farmers comprise the second smallest agricultural subsector. Some of them are seasonal migrants who moved to upland regions during the slack season in the lowlands and who decided to stay, while others

are those pushed out of the rapidly fragmenting farms in the lowlands. We estimate their household population to be 17,400 in 1980, or 5 percent of rural residents, of which 10,600 receive incomes below the poverty line. The Bicol Multipurpose Survey shows that these farmers receive an annual income of P3,944, the third highest, surpassed only by fishermen and lowland rice and corn farmers. Nonetheless, their income falls short of the poverty threshold and require an increase of 74.3 percent to make it.

Owing to large households (\bar{x} = 6.5 members), the upland rice and corn farmer's per capita income ranks third lowest (P607), with only coconut and other upland farmers securing lower per capita returns. These farmers diversify crop and non-crop income sources in varying degrees. At full diversification, assuming all reported sources are available to each household, they can earn incomes above the poverty line.

In spite of their poverty, small population lessens importance of upland rice and corn farmers in our ranking.

Many factors, similar to those found in other groups, explain their poverty. The primary cause may be traced to small and unproductive land. Survey results show that on average these farmers cultivate 1.7 hectares of farmland. The most common crop is corn. Eighty percent of all households plant the crop, from which they earn only P239 per year.

Forty-eight percent plant rice yet net returns are even less significant (P54 annually). A mixture of other kinds of crops, notably rootcrops, vegetables, fruit trees, and the like, provide better yields. Of 48 percent who plant these, an annual increment of P787 is realized.

Cultivation, although perceived to be the primary occupation of the household head and in which they spend much of their economic time, allow for minimal income. Low yields are in part due to lack of appropriate upland technology which in turn

leads to rapid degradation of the soil. Tenure security is yet another problem. According to surveys only 28 percent of upland rice and corn farmers are owners of their farms, the rest either renting, leasing, or squatting on the land. Among rural farmers, those in the sector report the second highest incidence of non-ownership.

Like other upland residents, these farmers have in the past been excluded from development assistance. Their major crops of rice and corn allow better access to credit, which although low (32 percent secured production loans) is nevertheless similar to the frequency reported by lowland rice farmers.

Lack of education and large households further contribute to their state. On average the household head complete 4 years of formal schooling. Their household size of 6.5 members is larger than the regional average.

To make ends meet, the upland rice and corn farmer must seek additional non- or off-farm sources of income. Below are figures on their potential sources, percent participation, and income from each source.

<u>Potential Source</u>	<u>Percentage Receiving Income fr. Source</u>	<u>Average Income</u>
Livestock and poultry	95%	P1631
Remittances	70	207
Wage Labor	58	1773
Business	26	1481

Considering the number who raise livestock or poultry and the average net returns from it, this activity qualifies as the major coping strategy of upland rice and corn farmers. Hiring out services of household members is another alternative. Compared with all other groups, these farmers appear to have stronger tendencies to engage in wage labor. Small scale business is yet another option, but records show only 26 percent resort to it. Where they do, revenues are relatively sizeable.

Owing to low productivity, poor soil, inappropriate technology, large households and their effect on soil degradation, the upland rice and corn farmer merits attention from development agencies. Assistance should, however, take cognizance of some of the farmer's strategies for survival.

F. Landless Fishermen

Three types of fishermen are distinguished in the report. There are farmers with some access to sea and river fishing but who consider themselves primarily as farmers; there are fishermen who own agricultural land and have dual sources of income; and, third, are the landless fishermen, who rely primarily on fishing for survival. The first two groups are not discussed in this section but are subsumed in discussions of other groups. Here we refer primarily to sea or river fishermen who do not control or own any agricultural land. We refer to them as the landless fishermen.

Based on the Bicol Multipurpose Survey results, we estimate household population of landless fishermen at 41,400 the fourth largest rural category in Region V. With 11.9 percent of rural population, their number is double that of landless workers and the upland groups.

The same survey shows that fishermen receive the highest average income ($\bar{x} = \text{P}4735$), and because of lower average household size ($\bar{x} = 5.9$ members), they report significantly higher per capita incomes of $\text{P}803$. Although revenues still fall below the poverty line, fishermen require the least increase to reach it, needing an increment of 45 percent. And yet they are poor. In 1971 55.6 percent of Bicol fishermen received incomes below the poverty line, the lowest incidence rate among rural residents. Without changes in the rate, we estimate the number of poor at present to be 23,000 households or 10.3 percent of the rural poor.

Several elements determine their poverty, of which the three most significant are landlessness, high production costs and depletion of fish supply. Unlike

farmers, fishermen do not have the wherewithal to grow needed foodstuff. Rice or corn, vegetables and rootcrops needed for consumption have to be bought rather than grown, adding pressure on their limited cash supply.

Production costs are very high, especially for those using motorized bancas. A comparison of gross and net income figures show fishermen to have the largest, gross-net income differential. More than 60 percent of income from fishing goes to operational expenses. This is not surprising given the major increases in oil prices in the recent past coupled with the rising cost of labor.

Depletion of fish supply, on the aggregate, contribute to the individual fisherman's declining yields. The San Miguel Bay, considered by some as one of the most important fishing areas in the east coast of Luzon, and other fishing areas in the region are rapidly becoming over-fished.

Beyond the factors affecting production are others fishermen have in common with rural residents. Little education, lack of capital, all of which aggravate their state of impoverishment.

Survival among fishermen is a function of available assets. Landlessness and the existing occupation network mold the fishermen's trade. Owing to these conditions their economic options are limited to three sources, they either fish, engage in small scale business, or hire-out labor. Net from fishing amounts to ₱2,452 annually. Since this is not enough to support a family of almost six members, the fishermen expand uses of their assets. One way, common to 45 percent, is to engage in small scale business. Owing to their natural mobility, the fishermen have several business alternatives. They can open a small sari-sari store, which they regularly supply as they travel to and from market centers; they can rent out boats, especially motorized ones, during slack season to excursionists or anyone wishing to travel to coastal barangays; or they can sell dried fish processed by other family members. As a matter of

fact, the Bicol Multipurpose Survey shows that fishermen with the means earn an average of ₱3488 from buy and sell activities.

Others without the wherewithal to engage in business rely on hired-out labor to supplement income from their primary occupation. Of 41 percent who report this as a source, net earnings reach ₱1,369 yearly.

We, therefore, observe patterns similar to yet different from those present in other groups. Non-reliance on a solitary source of income appears again and again in every category, fishermen not excluded, emphasizing the importance of diversification in the survival of rural residents. On the other hand, fishermen appear to diversify within narrower limits, that is, stress on fishing and related activities, when compared with other rural groups.

Synthesis

Many interrelated factors explain household poverty in the region. Three of the more significant are discussed below:

First. Low socio-economic status is to a great extent traceable to the inadequacy of the household head's main occupation to provide for basic needs.

Rural household heads easily identify their primary occupations as those they spend most of their working time on. These activities, however, in spite of the man-days required, account for only a minor portion of the household's aggregate income. Where primary occupation produces the major share, as in the case of landless fishermen and rural workers, we nevertheless observe that net returns from the activity are minimal and not enough to raise the household beyond the poverty threshold.

The patterns suggest that reliance on primary occupation as only source decreases rural household's chances for survival, and in fact, reliance only on farming may not allow survival.

Comparison of rural groups allow us to identify factors explaining inadequacy of main occupation in each category. Below is a list culled from the profiles.

a. Small farmland. Aside from coconut farmers, others cultivate 1.5 to 1.7 hectares, and given the rate of fragmentation, we expect smaller farms in the future. Even if we were to assume better conditions, such as, access to irrigation, lower input costs, among others, farmers may still find it hard to maximize farm productivity on account of highly fragmented farm lots resulting from rapidly increasing population.

Coconut farmers, although having large farms, are subject to similar constraints. Owing to the character of coconut farms, bigger areas are needed to make these economically viable to operate, and at present, given existing farm practices, 5.1 has. may not even be sufficient.

Landless fishermen and rural workers are not as affected by land fragmentation inasmuch as they either rely on other assets or on hiring-out labor. Indirectly

Table 7. SUMMARY OF MAJOR CHARACTERISTICS OF THE RURAL POOR (BICOL REGION, 1978)

Group	Tenancy Rate	Average Landholding	% with Livestock or Poultry	% with Production Loan	% with Secondary Occupation	Relative Dependence on Occupation	% Increase Income Needed to reach Poverty Line	Geographical Concentration	% Own Home
									% Free Use
Coconut	44%	5.1	94%	23%	52%	Low to Moderate More than 20% of HH income from main crop	79.7%	All provinces except Catanduanes	42% 93% 97% 92%
Upland Other Crops	81%	1.5	89%	15%	76%	Low Total crop income less than 15% of HH income	157.4%	Catanduanes Camarines Sur Albay	23% 86% 97% 100%
Landless Rural Worker	-	-	78%	-	45%	High More than 80% of HH income from main occupation	88.5%	Dispersed throughout region	12% 97% 89% 100%
Rainfed Farmer	68%	1.6 has	89%	34%	67%	Low Less than 20% HH income from main occupation	66.7%	Rice Camarines Sur Albay Sorsogon Corn Masbate	33% 86% 94% 95%
Upland Rice Corn	72%	1.7	95%	32%	70%	Low Less than 10% of HH income from main occupation	74.3%	Similar to rainfed	18% 78% 92% 100%
Landless Fishermen	-	-	77%	19%	52%	High More than 80% of HH income from main occupation and related activities	45.2%	All coastal areas of six provinces	15% 74% 92% 77%

non-access to land forces both groups to spend more for food items that others grow. Second, as the rate of land fragmentation increases, a concomitant increase in competition for scarce occupational opportunities would occur among landless rural workers.

- b. Tenure security. In spite of the inroads of agrarian reform, significant numbers of upland and lowland rice farmers perceive themselves to be non-owners, and roughly four-fifths of other uplanders do not own land. Again coconut farmers appear to do better, a small majority reporting themselves landowners.^{11/}

One reason that can account for high incidence of non-ownership especially among rice and corn farmers is the apparent unwillingness of tenants to become amortizing owners. "Readers familiar with --- publications in the SSRU Research Report Series may recall that in 1973 only two-thirds of tenant rice farmers of Camarines Sur said they wanted to own the land they tilled (Lynch 1973: 10); in Nueva Ecija in 1971 the corresponding figure was 55 percent (Pahilanga-de los Reyes and Lynch: 1972: 29). As Christenson rightly pointed out (1972: 170), share tenants and owners are relatively secure, while lessees (and, we would add, amortizing owners) are not."^{12/} Apparently, lack of security ascribed to leaseholding and amortizing ownership explains reluctance.

The aggregate effect of a high frequency of non-owners and non-willingness to improve tenure status is the retention of a system which prevents higher net crop returns.

- c. Inappropriate technology. Compounding problems further is practice of inappropriate and inadequate farm technology. Hardest hit are upland residents where lack of awareness and unavailability of appropriate techniques have not only minimized incomes but in fact led to rapid decline of soil fertility.

^{11/} Tenancy rates reported in Table 7 mask actual figures. Figures cited are not limited to percentage of tenants but include leaseholders as well. A finer breakdown could not be made.

^{12/} Jose V. Barrameda, Sulpicio S. Roco, Jr., & Frank X. Lynch, S.J., The Proposed Balongay Fishpond Estate: How Do the Taga-Balongay Feel About It?, Social Survey Research Unit, Ateneo de Naga, Naga City, 1974.

Coconut farmers likewise decrease returns by non-application of fertilizers, use of traditional copra dryers, and non-usage of other practices which could favorably affect production. Even rainfed farmers, who in spite of greater exposure to modern methods, cannot radically improve earnings from rice. Although aware of importance of chemical and fertilizer inputs, and to some extent applying them, lack of irrigation negates their potential increases.

A combination of lack of knowledge of better methods, and where knowledge is available, lack of access to them prevents higher yields from primary crops.

- d. Limited access to capital. Comparing rural group's access to capital, we observe both differences and similarities. Farmers who are into rice or corn cultivation appear to have better access, a third reporting loans for production purposes. Coconut farmers, landless fishermen and upland other crop farmers have less access, with only slightly more than a fifth to less than a sixth reporting the same. At the bottom of the scale are landless rural workers, none having secured production loans within a 12-month period. Access to credit for investment hinges on possession of collateral, on government policies which provide credit to some and not to others, among others. What figures in Table 7 stress is that even among the better-off, such as rice farmers, the vast majority still are not able to secure production loans.

Another possible source of capital is primary occupation. Theoretically it must provide for a surplus to make the activity self-supporting. Realities, however, show that minimal yields prevent this. Apparently, to start a new crop season, farmers use earnings of other household economic activities. To survive, or at least, to keep primary occupation going, they must learn to juggle available resources.

The preceding section cites reasons for low productivity which in part explains inadequacy of primary occupation to provide for basic human needs. Another may

be added to the list. It pertains to the degree of underemployment found in rural areas.

Recent Bicol surveys comparing employment between urban and rural residents report significant differences. See, for instance, Illo and Lynch: 1974, and Roco: 1980. Although more rural household heads report themselves to be employed than urban counterparts, the degree of underemployment in the former is significantly greater.

Underemployment combined with low productivity further weakens the role of main occupation as primary source of income. Underemployment is traceable mainly to seasonality of work. Characteristic of upland and rainfed rice farmers is reliance on favorable weather conditions for them to maximize production. At most they can count on two seasons which occupy them a maximum of 8 months per year. The remainder, if not devoted to other activities, increases degree of underemployment.

Coconut farmers and fishermen suffer from the same patterns, the former spending 2-3 weeks for harvest and copra making in every 45-60 day cycle, while the latter is subject to changes in the fishing season.

Landless rural workers are the worst off. Not only are they affected by the cropping and fishing seasons, income fluctuation among prospective employers also play a part.

Second. A number of sociocultural realities also impact on poverty. We refer primarily to cultural values which guide economic behavior. Foremost among these is the desire to be economically secure. Positively, the value of economic security requires the Bicolano to be economically self-sufficient, i.e., not to rely on others for one's needs. It provides impetus towards improvement, or at least the desire to improve, owing to which non-satisfaction of their desire may egg them on to do better. On the other hand, the concept of economic security may fluctuate depending on the household's

perceptions of when its needs have been met. Thus, although the objective observer may feel that the annual household's requirements have not yet been met, but if the household feels otherwise, then little motivation may be present to improve. Stated differently, economic security may require the subsistence farmer to protect a known yet low-paying activity by opting for the status quo, rather than experimenting on untried systems which may upset the precarious balance of forces by which they presently survive.

Social acceptance. is another value affecting poverty. The pervasive desire to be "accepted by one's fellows for what one is, thinks oneself to be, or would like to be and be given the treatment due to one's station" is attained primarily by maintaining good relations with neighbors, friends, patrons, and relatives. Since in their social and economic milieu, farmers place a premium on good relations with their superordinates, with whom traditionally they have had a functional relationship, innovations which affect the relationship would be viewed with caution.

Both values impact on the rural residents socioeconomic status in as much as each contains elements which prevents or impedes introduction of new ideas.

All the factors cited above contribute to the situation of the rural poor in Bicol. Within the system, however, the poor survive and, in fact, the elements of survival are themselves found among the factors that spell their poverty. This leads us to the third major factor --- strategies for survival --- the components of which are as follows:

- a. the primary mode of survival within the system hinges on success of the poor in diversifying uses of existing resources. Not able to maximize yields of primary occupation, the poor rely on off-farm and non-farm work. Where available income figures show that other economic activities give better returns. Implicit in their diversification strategy is their success in making the most of one of their major assets -- available manpower.

b. Social factors also mitigate effects of poverty. Kinship and alliance networks, and even the patron-client relationship, provide means to lessen impact of poverty. Observed in all groups is constant reference to remittances from non-household members as additional income source. Although the total increment is minimal, the fact that it may be available in time of serious need helps lessen the burden. Related to this is the apparent willingness of household members to be considered an economic asset of the unit. This is manifested in the percentage of people who work as unpaid family laborers, those who go to the cities as hired househelp and send back home part of their earnings, and in household head's expectations that children should provide economic assistance both to their siblings and to their parents as they grow older.

Similarly traceable to social factors is the prevailing practice of free use of homelots and houses. Survey results show that most rural residents do not own their homelots, and yet almost all are allowed free use. We can posit that as long as patron-client relationships are still at work, where these serve a function, both clients and patrons can rely on what the other can provide most -- support and service from one side and ^amodicum of protection from the other.

c. The rural resident's traditional non-willingness to change also forms part of their survival tools. For without innovations, without experimentation, the farmer assures himself of at least retention of what they annually earn. Although not amounting to much, they nevertheless have learned to live with it in times past.

Annex Table 1. Actual Average Annual Income and Percent Derived From Various Sources By Category of Farmer (Bicol Region, 1978)*

<u>Source</u>	<u>Coconut</u>	<u>Upland Others</u>	<u>Landless</u>	<u>Rainfed Rice/Corn</u>	<u>Upland Rice/Corn</u>	<u>Fishermen</u>
Rice	P 43 1.1%	P -	P -	P 398 9.7%	P 26 0.7%	P -
Corn	32 0.8	-	-	-47	192 4.9	-
Coconut	824 21.5	2 0.1	-	-	-	-
Abaca	12 0.3	24 0.9	-	3 0.1	4 0.1	-
Other Crops	580 15.2	278 10.4	-	460 11.2	382 9.7	-
Sub-total	1491 40.0	304 11.4	-	814 19.7	604 15.3	-
Livestock Poultry	355 9.3	20 0.7	189 5.2	825 20.0	1557 39.5	7 0.1
Fishing	146 3.8	412 15.4	-	182 4.4	237 6.0	2452 51.8
Business	508 13.3	345 12.9	187 5.1	832 20.2	381 9.7	1555 32.8
Other Sources	525 13.7	176 6.6	210 5.8	713 17.3	144 3.7	163 3.4
Wage Labor	800 20.9	1413 52.9	3060 83.9	758 18.4	1021 25.9	558 11.8
Sub-total	2334 60.0	2366 88.6	3646 100.0	3310 80.3	3340 84.7	4735 100
TOTAL	3825 100%	2670 100%	3646 100%	4124 100%	3944 100%	4735 100%
n	361	62	73	223	66	157

* Sample population referred to includes all households.

Source: Bicol Multipurpose Survey, 1978.

Annex Table 2. Potential Average Annual Income from Various Sources and Percentage of Households Deriving Income from These by Category of Farmer (Bicol Region, 1978)*

Source	Coconut	Upland Others	Landless	Rainfed Rice/Corn	Upland Rice/Corn	Fishermen
Rice	P 106 41%	P -	P -	P 353 80%	P 54 48%	P -
Corn	119 27	-	-	-659 7	239 80	-
Coconut	1328 62	98 2%	-	-	-	-
Abaca	164 7	137 18	-	150 2	133 3	-
Other Crops	1599 36	442 63	-	2565 20	787 48	-
Sub-total	3316	677	-	2409	1213	-
Livestock & Poultry	376 94	23 89	242 78%	925 89	1631 95	9 77%
Fishing	146** DK	412** DK	-	182** DK	237** DK	2452 100
Business	1492 34	931 37	651 29	2649 31	1481 26	3488 45
Other Sources	700 75	227 77	247 85	952 75	207 70	221 74
Wage Labor	1901 42	2434 58	3060 100	1483 51	1773 58	1369 41
Sub-total	4615**	4027**	4200**	6191**	6542**	7539
TOTAL n	7931** 361	4704** 62	4200 73	8600** 223	7755** 66	7539 157

* Computation of averages by source excludes households not reporting income from source specified.

** Potential income from fishing and concomitantly total potential income would increase if actual population receiving any income from fishing were known. Without it, income from fishing is used as indicative of the minimum income realizable from the activity.

Source: Bicol Multipurpose Survey, 1978



Bibliography

Barrameda, Jose, Sulpicio S. Roco, Jr., and Frank Lynch

- 1974 The proposed Balongay fishpond estate: How do the taga-Balongay feel about it? SSRU Research Report Series, No. 4. Naga City: Social Survey Research Unit, Ateneo de Naga.

Cornista, Luzviminda

- 1981 Coconut farmers profile: Eastern Visayas Region. Manila, Philippines: U.S. Agency for International Development.

Illo, Jeanne F.I., and Frank Lynch

- 1974 The unemployed and underemployed in the Bicol River Basin. SSRU Research Report Series, No. 10. Naga City: Social Survey Research Unit, Ateneo de Naga.

Lynch, Frank

- 1973 Social acceptance reconsidered. In four readings on Philippine values, Frank Lynch and Alfonso de Guzman II, eds. "IPC Papers," No. 2 Fourth Edition, enlarged. Quezon City: Ateneo de Manila University Press.

Lynch, Frank, Jeanne Frances I. Illo, and Jose V. Barrameda, Jr.

- 1976 Let my people lead: Rationale and outline of a people-centered assistance program for the Bicol River Basin. (Social Soundness Analysis submitted to the U.S. Agency for International Development) Quezon City: Social Survey Research Unit, Institute of Philippine Culture, Ateneo de Manila University.

National Census and Statistics Office

- 1971 1971 Census of Agriculture. Philippines: NCSO.
1980 1980 Census of population (preliminary report). NCSO.

Novick, Paul

- 1980 Agricultural profile and assessment: Region V. Manila, Philippines: U.S. Agency for International Development.

Roco, Sulpicio S., Jr.

- 1980 Education in Bicol: Beyond reach of the rural poor. Naga City: Prepared for the Ministry of Education and Culture, Region V.

San Andres, Ricardo, and Jeanne Frances I. Illo

- 1978 Beyond share tenancy: A socioeconomic study of the effects of agrarian reform programs in the Bicol River Basin, Camarines Sur, 1974 and 1977. Quezon City: Social Survey Research Unit, Institute of Philippine Culture, Ateneo de Manila University.

United States Agency for International Development

- 1980 Country Development Strategy Statement FY 82. Manila, Philippines: USAID.

Wolf, Eric

- 1966 Peasants. Englewoodcliffs, New Jersey: Prentice-Hall, Inc.

World Bank

- 1980 Aspects of poverty in the Philippines: A review and assessment. Philippines: World Bank

