

Working Paper No 99-03

**COPING WITH EL NIÑO, 1998: AN
INVESTIGATION IN THE UPLAND
COMMUNITY OF LANTAPAN, BUKIDNON,
PHILIPPINES**

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Coping with El Niño, 1998: An Investigation in the Upland Community of Lantapan, Bukidnon, Philippines

A.C. Rola, C. O. Tabien, and I. B. Bagares¹

I. Introduction

This report contains the results of the survey of households in Lantapan, Bukidnon, Philippines that captured the production and other household data for the first half of 1998. This data set extends the panel data series gathered in this site which started in 1994 (see Coxhead, 1995). Initially, the panel started out with 191 sample families, this year we were able to interview only 95. Reasons for dropping out are identified in the paper.

There were two major shocks that hit the economy during the survey period. One was the harsh environmental effect of the El Niño (season of drought) phenomenon. The other is the impact of the Asian financial crises, which was translated into a major devaluation of the Philippine currency. As well, interest rates have also gone up in 1998 to 20% from 16.2% in 1997. The impact of this latter phenomenon could be manifested in the high costs of credit as well as the high costs of tradable agricultural inputs, namely, seeds, fertilizer and pesticides.

The focus of this paper, however, is to learn more about the impact of the drought on the upland farmers' land use and other production decisions. The sources of alternate incomes and the coping mechanisms employed by the households in the light of the El Niño are also investigated. Such knowledge could guide policy and technology intervention in future unfavorable weather spells.

II. Methodology

The production surveys in the study area started in 1994. There were a total of 191 farmers and 306 parcels in the initial survey. This number dropped to 119 farmers and 224 parcels in 1996. In 1998, this was further reduced to 95 respondents and 180 parcels (Table 1). Some of the reasons for dropping out in 1998 were the following: farm was returned to landowner because of lack of cash for production inputs and no cash for rentals; migration; farm mortgage; and farm was fallowed due to lack of capital (Table 2). Future modification of survey methods could be done to be able to monitor performance of farmers who abandoned agricultural activities.

The sampling method for the series of surveys in this upland site is outlined in Coxhead (1995). In the 1998 survey, the respondents were visited at least three times: one during the planting time, another during crop care, and a third, after harvest. This method differs from the earlier surveys where data were generated via recall.

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III. Results

3.1 Land Use

3.1.1 Fallowed Parcels

In 1998, 15% of the total parcels were in fallow. Most of these were in Kibangay with 36%, followed by Balila and Victory which accounted for 14% each of the area (Table 3). Of the 28 parcels in fallow this season, 10 were already in fallow two or more years ago; 12 started to be fallowed in 1997 and 6 more for the 1998 first season (Table 4). (Note: El Niño dry spell in this upland community started in early 1997 and ended in mid 1998). There were at least three major reasons for fallowing: drought, lack of capital and lack of seeds (Table 5). Lack of seeds could also be due to the fact that the household consumed the seeds provided for production. Lack of capital was noted more in Kibangay; some families who were borrowing before did not want to borrow anymore. Drought was mentioned by 12% of respondents who fallowed.

Nobody mentioned that fallow was for soil conservation.

3.1.2 Crops Grown and Area of Crops Grown

Forty percent of parcels were planted to corn, and 17% to coffee. Aside from the 15% parcels in fallow, all the rest were planted to sugarcane, vegetables, root crops and timber (Table 6).

It was also observed that in Basac, 60% of the parcels in the sample were planted to corn, and 30% were fallowed. In Cawayan, 67% of the sample parcels were devoted to corn, and 17% were in fallow. On the other hand, in the relatively richer barangays like Songco and Kibangay, the proportion of corn parcels to the total parcels are 37% and 36%, respectively.

In terms of area, corn and coffee were predominant, which is also consistent with results in the 1994 surveys (Table 7).

3.1.3 Soil Conservation Practices

Based on the survey data, farmers with more secured tenure practice soil conservation especially contour plowing. It was, however, observed that cash renters also have contour plowing (Table 8). However, a majority of farmer respondents were not practising any method of soil conservation measure.

3.2 Cash Inputs

Because of cash constraints, farmers had very little investment in terms of fertilizer and chemicals. Because of high interest rates and limited access to credit, only 12% of farmer

respondents availed of credit, mostly from informal sources (Table 9). Because of lack of cash, 80 out of 180 parcels were not applied with purchased inputs (Table 10).

In contrast, in 1994, about 47% used own cash, and 18% also borrowed. Fifty one percent did not apply any input. Also in 1994, 36% of corn parcels were applied with inorganic fertilizer, and 10% with lime. Twelve percent of coffee parcels were applied with inorganic fertilizer. More than 50% of vegetable plots were applied with inorganic fertilizer and pesticides; more than 50% with herbicide and manure (Coxhead, 1995).

In 1998, 5 corn parcels were planted to hybrids and the rest to traditional varieties (Table 11). Again, this indicates the lack of cash by most farmers. For those who applied inputs in their crops, the mode of payment is usually in cash (Table 12).

3.3 Gross Returns

As a result of water stress, and lack of capital for inputs, the gross returns in 1998 (in 1994 prices) is much lower than the 1994 results, except for coffee. Coffee prices were favorable during these times. And the crop itself is quite resilient to the harsh weather condition. For corn, only 48% of the total planted crops were harvested, and yields during this season were relatively low.

As a result, in 1994, mean returns for corn is PhP 6,207; while in 1998 it was only PhP 3,522 (Table 13). Coffee had higher gross returns in 1998 than in 1994. Other vegetables have slightly lower gross returns in 1998.

Because of the aim of the household to be food secured during the drought season, there was a significantly lesser percent of crops produced that were sold in 1998 as compared to 1994 (Table 14). While vegetables are almost completely brought to the market, corn produce had a dismal proportion of production sold. Also, this figure is much lower than in the 1994 period.

Tomato sales were lower than those produced because the crop was destroyed while handling.

3.4 Labor and Income

An important coping mechanism for the upland farmers during the El Niño was the availability of off-farm and non-farm incomes. Off-farm incomes were available in irrigated rice areas, as well as in vegetable areas. Non-farm incomes were available mostly in Balila, Alanib and Kibangay. There were also available *sari-sari* stores that were already selling NFA rice. These businesses started to flourish during the year of the survey.

In terms of income, Alanib, Balila and Kibangay, which are the more market oriented barangays, were observed to have higher proportion of non-farm incomes (Table 15). Songco,

which is highly agricultural, has bigger farm incomes. Also, it is only in the more progressive barangays where off-farm incomes were observed. The higher elevated areas farther from the markets have only on-farm incomes. They were the most vulnerable group during the El Niño.

The wages data likewise suggest rigidity in the area. In 1995 survey, wage rates were about PhP 50 per day (Rola, et al. 1995). At this time, the range of wages paid and received in the different farm operations are almost the same as the previous period (Table 16). There are indications, however, of increased non-farm activities, particularly small store vending.

Were there movements to search for work, maybe? We also took note of places of residence of our respondents and their family members. Our current data cannot ascertain whether there were movements from the site during these hard times (Table 17). But a number of persons who dropped out of the survey permanently migrated.

3.5 *Land Markets and Tenure*

Land market is non-existent in this community. However, there were observations of renting out the farm with one farmer selling his farm, as coping mechanisms. There was no significant change in tenure during the two periods under comparison (Table 18). The proportion of farmers within a particular tenure is still the same.

IV. Discussion

4.1 *Coping Mechanisms*

Results of the survey indicate that farmers especially in the hinterlands of this upland community have been severely affected by the El Niño phenomenon. And to stay afloat and alive, they have resorted to various coping mechanisms. First, to maintain household food security at these times, upland farmers sold their livestock, sold or rented out their piece of land, planted root crops, did not participate much in the market activities, consumed less, and sold lesser proportion of their production.

Second, migration was an expected coping mechanism. Although our data do not significantly show this, there is an observation that some of the respondents migrated to more favorable areas. And thirdly, the availability of off-farm incomes and non-farm incomes was most critical. These were found in the more favorable areas along the watershed. Favorable here was seen to mean areas with water. Farmers went to places with water to work as hired laborers. Some have initiated other small businesses like food vending, (e.g., selling boiled bananas), in places where there was cash.

4.2 *Government Programs to Cushion Impact of the El Niño*

Government records now show that there is enough data to be able to predict the next episode of the El Niño; and that in the future, upland farmers need not suffer so much from this

weather disturbance. What are the necessary precautions to cushion the effect of the future El Niño episodes? Could we learn from experience?

This study showed that the areas of intervention for farmers to minimize the ill effects of the El Niño are: 1) to have credit subsidy; 2) to have the knowledge about and access to drought tolerant varieties; and 3) to have access to farm inputs. Government had programs for El Niño during the 1997-98 dry spell. These programs have not quite trickled down to the most vulnerable groups, as reported in very recent surveys.

For instance, in a related study in four regions in Luzon, a survey of 1,095 farmers indicated that 95% are aware of the El Niño phenomenon (Acoba, et al. 1999). Half of these knew the effects of the El Niño induced problems including delays of planting of rainfed and irrigated crops, crop failure, reduced yields due to water stress and the drought induced pests and diseases. The government initiated intervention programs such as introduction of soil conservation and efficient water management, planting of short maturing drought tolerant corn varieties, zero tillage practices, and farm residue utilization, among others, were not known to most of the respondents. Almost all of the more than 1,000 respondents did not see any perceived benefits from these programs.

Rather, the coping mechanisms that were resorted to included not to plant crops, not to raise animals, and basically reduced food consumption. To them, intervention should have been more effective had they been in the form of lower input prices, lower interest rates, better access to seeds and other planting materials. Just like the Lantapan respondents, most upland farmers who were the hardest hit of the El Niño had to stay afloat by themselves. Government investments in these times should have targeted this population. And to be more efficient, government investments should be long-term in nature. It was likewise observed that even R and D investments had a very short gestation period; and hence, defeated the very purpose of the projects. Programs must be proactive; and must be very much targeted.

4.3 *What to do with La Nina?*

We asked our farmer respondents in Lantapan about their expectations about prices, and production during the following crop season. This also is the La Niña season, where the weather would be unseasonally rainy and wet. Most farmers still would plant corn, only 7% of the farmers were expecting higher prices for corn and 2% higher yields for corn (Table 19). On the other hand, expectations for coffee were different; 85% of the farmers expect higher coffee prices the following season. Tomato and cabbage farmers also have optimistic expectations. So it does seem that the commercial crops are expected to perform better in the La Niña times than the drought period.

V. Conclusions and Recommendations

Upland farmers are the hardest hit by the vagaries of weather. These weather patterns are now quite predictable and thus, intervention measures can be designed at an earlier stage. The results of this study and those of related studies show that upland farmers have particular needs during the dry spell. Government should be more proactive to target intervention programs to take care of those who need the subsidies the most. These subsidies could be in the form of cash and credit, production inputs, or even in the form of food, if needed.

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Table 1. Number of sample farms and parcels, 1994, 1996, and 1998, Lantapan, Bukidnon.

Barangay	1994		1996		1998	
	No. of Farms	No. of Parcels	No. of Farms	No. of Parcels	No. of Farms	No. of Parcels
Alanib	33 (17)	46	21 (18)	32	19(20)	27
Balila	18 (9)	36	13 (11)	29	13 (14)	30
Baclayon	11 (6)	20	9 (7)	14	8 (8)	15
Kaatuan	13 (7)	21	-	-	-	-
Songco	25 (13)	37	15 (13)	35	12 (13)	30
Kibangay	48 (25)	75	33 (28)	61	22 (23)	44
Victory	13 (7)	20	8 (7)	13	6 (6)	16
Basac	15 (8)	24	9 (7)	18	9 (9)	11
Cawayan	15 (8)	27	11 (9)	14	6 (6)	7
Total	191 (100)	306	119 (100)	224	95 (100)	180

*The barangay was dropped out from the 1996 survey.

Note: Figures in parenthesis are percent to total farms.

Table 2. Reasons for dropping out in the 1998 survey.

Reasons	KIB	SON	VIC	CAW	ALA	BAC	TOTAL	%
Migration	2	-	1	-	1	-	4	17
Farm returned	2	1	1	3	-	-	7	29
Farm mortgage	2	-	-	-	-	-	2	8
Non-farm work	2	-	-	1	-	-	3	12
Sold farm	-	1	-	-	-	-	1	8
No capital/fallow	1	1	-	-	-	1	4	12
Too old to farm	1	1	-	-	-	-	1	4
Death	1	-	-	-	1	-	2	8
Total	11	3	2	5	2	1	24	100

Total Respondents

1994 191

1996 119

1998 95

Table 3. Number of parcels by barangay, Lantapan, 1998.

Barangay	Parcels Planted		Parcels Fallowed		Parcels Dropped	
	N	%	N	%	N	%
Alanib	25	16%	2	7%	27	15%
Balila	26	17%	4	14%	30	17%
Baclayan	14	9%	1	4%	15	8%
Songco	27	18%	3	11%	30	17%
Kibangay	34	22%	10	36%	44	24%
Victory	12	8%	4	14%	16	9%
Basac	8	5%	3	11%	11	6%
Cawayan	6	4%	1	4%	7	4%
Total	152	100%	28	100%	180	100%

Table 4. Number of parcels by fallow period, Lantapan, 1998.

Barangay	Jan-June 1998	1 Year	2 years or more	Total
Alanib	-	2	-	2
Balila	2	2	-	4
Baclayan	1	-	-	1
Songco	-	2	1	3
Kibangay	-	5	5	10
Victory	1	-	3	3
Basac	2	1	-	3
Cawayan	-	-	1	1
Total	6	12	10	28
%	21	43	32	100

Table 5. Number of parcels by reason for fallowing, Lantapan, 1998.

Barangay	Drought	Lack of Capital	Lack of Seeds	Others	Total
Alanib	-	2	-	-	2
Balila	2	2	-	-	4
Baclayan	-	1	-	-	1
Songco	-	3	-	-	3
Kibangay	-	7	2	1	10
Victory	1	3	-	-	4
Basac	-	1	2	-	3
Cawayan	-	-	-	1	1
Total	3	19	4	2	28
%	12	67	14	7	100

Table 6. Crops grown on sample farms by barangay, Lantapan, January - June, 1998.

Crops		BAL	BAC	ALA	SON	CAW	VIC	KIB	BAS	TOTAL
Fallow	N	4	1	2	3	1	4	10		
	%	13	7	7	10	14	25	23	27	15
Corn	N	12	6	12	11	5	4	16	7	73
	%	40	40	44	37	71	25	36	64	40
Sugarcane	N	7	-	-	-	-	-	-	-	7
	%	23	-	-	-	-	-	-	-	4
Coffee	N	5	8	12	4	-	-	1	-	30
	%	17	53	44	13	-	-	2	-	17
Potato	N	-	-	-	1	-	-	1	-	2
	%	-	-	-	3	-	-	2	-	1
Cabbage	N	-	-	-	2	-	1	2	-	5
	%	-	-	-	7	-	6	5	-	3
Tomato	N	1	-	-	2	-	-	1	1	5
	%	3	-	-	7	-	-	2	11	3
Other veg.	N	1	-	1	5	-	6	12	-	25
	%	3	-	4	17	-	38	27	-	14
Other Crops	N	-	-	-	2	1	1	1	-	5
	%	-	-	-	7	14	6	2	-	3
Total No. of Parcels		30	15	27	30	7	16	44	11	180
%		100	100	100	100	100	100	100	100	100

Table 7. Area (ha) of crops grown on sample parcels by barangay, Lantapan, January - June, 1998.

Crops		BAL	BAC	ALA	SON	CAW	VIC	KIB	BAS	TOTAL
Fallow	Area	6.80	1.00	2.25	10.00	1.00	8.90	11.75	2.30	44.00
	%	18%	8%	11%	39%	17%	65%	49%	34%	30%
Corn	Area	10.85	5.75	7.00	9.50	4.75	2.85	7.35	3.25	51.30
	%	29%	44%	33%	37%	83%	21%	31%	48%	35%
Sugarcane	Area	11.00	-	-	-	-	-	-	-	11.00
	%	30%	-	-	-	-	-	-	-	7%
Coffee	Area	5.95	6.25	11.06	1.25	-	-	0.75	-	25.26
	%	16%	48%	53%	5%	-	-	3%	-	17%
Potato	Area	-	-	-	0.75	-	-	0.20	-	0.95
	%	-	-	-	3%	-	-	1%	-	1%
Cabbage	Area	-	-	-	1.50	-	0.25	1.00	-	2.75
	%	-	-	-	6%	-	2%	4%	-	2%
Tomato	Area	0.40	-	-	1.25	-	-	-	1.20	2.85
	%	1%	-	-	5%	-	-	-	18%	2%
Other veg.	Area	1.87	-	0.45	1.00	-	1.15	1.84	-	6.31
	%	5%	-	2%	4%	-	8%	8%	-	4%
Other Crops	Area	-	-	0.25	0.50	-	0.50	1.00	-	2.25
	%	-	-	1%	2%	-	4%	4%	-	2%
Total		36.87	13.00	21.01	25.75	5.75	13.65	23.89	6.75	146.67
%		100	100	100	100	100	100	100	100	100

Table 8. Soil conservation practices by tenure of parcel, Lantapan, January - June 1998.

Practice	Priv. Title	Share own.	Tax Decl.	Share Tenant	Cash Rental	CLT	Missing	Total
None*	46	5	23	15	12	1	12	114
	62%	56%	59%	71%	57%	50%	86%	63%
Contour	21	2	11	3	4	-	1	42
	28%	22%	28%	14%	19%	-	7%	23%
Borders	5	2	5	1	3	1	1	18
	7%	22%	13%	5%	14%	50%	7%	10%
Natural veg.	2	-	-	1	1	-	-	4
	3%	-	-	5%	5%	-	-	2%
Hedgerows	-	-	-	1	1	-	-	2
	-	-	-	5%	5%	-	-	1%
Missing	-	-	-	-	-	-	-	0
	-	-	-	-	-	-	-	0%
Total	74	9	39	21	21	2	14	180
Percent	100	100	100	100	100	100	100	100

* Twenty eight (28) plots are in fallow.

Table 9. Availment of credit by tenure status, Lantapan, 1998.

Items	Tenure Status			Total	
	Owner/CLT	Tenant	Lessee	N	%
Did not avail of credit	61	18	2	81	85
Availed of credit by:					
Formal sources	1	-	1	2	2
Informal sources	7	1	1	9	10
Missing	-	-	-	3	3
Total	69	19	4	95	100

Table 10. Number of parcels on which fertilizer or chemicals were used by crop, January – June 1998.

Crop	Manure	Inorganic	Pesticide	Herbicide	Lime	Total	Without Inputs	Total Parcels
Crop	-	20	-	1	-	21	52	73
Sugarcane	-	-	-	-	-	-	-	7
Coffee	-	2	-	-	-	2	28	30
Potato	-	2	-	-	1	3	-	2
Cabbage	1	5	2	5	-	13	-	5
Tomato	2	5	5	5	-	17	-	5
Other vegetables	1	16	2	7	-	26	-	25
Other crops	-	-	-	-	-	-	-	5
Fallow	-	-	-	-	-	-	-	28
Total	4	50	9	18	1	82	80	180

Note: Some parcels may be higher than total due to multiple responses.

Table 11. Distribution of parcels planted to corn by type of seeds and by barangay, Lantapan, 1998.

		Hybrid	Traditional	Total
Alanib	N	1	11	12
	%	20%	16%	16%
Balila	N	3	9	12
	%	60%	13%	16%
Baclayon	N	0	6	6
	%	0%	9%	8%
Aglayan	N	0	1	1
	%	0%	1%	1%
Songco	N	0	11	11
	%	0%	16%	15%
Kibangay	N	1	15	16
	%	20%	22%	22%
Victory	N	0	4	4
	%	0%	6%	5%
Basac	N	0	7	7

	%	0%	10%	10%
Cawayan	N %	0 0%	4 6%	4 5%
Total		5	68	73
%		7	93	100

Table 12. Mode of payment by sample parcels, Lantapan, Bukidnon, 1994 and 1998.

Crops		Own Cash		Credit		No input	
		1994	1998	1994	1998	1994	1998
Corn	N	41	24	23	6	64	43
Potato	N	19	2	8	-	3	-
Cabbage	N	-	3	-	2	-	-
Tomato	N	-	-	-	5	-	-
Coffee	N	10	3	-	-	67	27
Other vegetables	N	-	17	-	3	-	15
Other crops	-	-	-	-	-	-	2
Fallow	-	-	-	-	-	-	28

Table 13. Average gross return per ha (Php), by parcel (weighted by crop area), January – June 1998, Lantapan, Bukidnon.

Crops		Gross Returns, 1998		Gross Returns 1994
		1998 Prices	1994 Prices	
Corn	N	48	3,522	6,207
	Mean	4,684		
	S.D.	6,545		
Coffee	N	12	7,283	5,975
	Mean	9,580		
	S.D.	15,466		
Potato	N	1	6,015	19,417
	Mean	8,000		
	S.D.	8,000		
Tomato	N	2	7,813	
	Mean	10,392		
	S.D.	13,942		
Other Vegetables	N	14	13,300	14,267
	Mean	17,690		
	S.D.	16,491		

Table 14. Sales of major crops as percentage of farm production, by barangay, Lantapan, 1994 and 1998.

Crop		BAL	BAC	ALA	SON	CAW	VIC	KIB	BAS	AVE
Corn	1994	84	71	54	47	44	47	46	31	53
	1998	23	-	37	7	17	36	19	12	22
Coffee	1994	90	74	70	89	73	71	70	83	77
	1998	95	82	87	33	-	-	-	-	74
Potato	1994	-	-	-	86	97	93	94	94	92
	1998	-	-	-	100	-	-	100	-	100
Cabbage	1994	-	-	-	87	99	91	92	-	91
	1998	-	-	-	100	-	100	100	-	100
Tomato	1994	-	-	-	-	-	-	-	-	-
	1998	56	-	-	100	-	-	-	-	78
SW Potato	1994	-	-	-	-	-	-	-	-	-
	1998	-	-	-	100	-	-	-	-	100

Table 15. Income distribution by barangay per household, Lantapan, Bukidnon, for January to June 1998 period.

		On-Farm	Off-Farm	Non-Farm	Total
Alanib	Amount	1,182	1,192	5,782	8,156
	%	14	15	71	100
Balila	Amount	1,693	631	11,665	13,989
	%	12	5	83	100
Baclayon	Amount	7,642	1,720	4,575	13,937
	%	55	12	38	100
Songco	Amount	9,775	2,706	4,133	16,615
	%	59	16	25	100
Kibangay	Amount	4,773	1,618	6,023	12,414
	%	38	13	49	100
Victory	Amount	3,727		3,000	6,727
	%	55		45	100
Basac	Amount	6,305		522	6,827
	%	92		8	100
Cawayan	Amount	803		1,100	1,903
	%	42		58	100
Total	Amount	35,900	7,868	36,800	80,568
	%	45	9	46	100

Table 16. Wage rates paid and received, Lantapan, Bukidnon, 1998

Activity	N	Rate	Sharing Arrangement	Range
A. Farm ¹				
Land Preparation ,MD		55/day		50-60
,AD		55/day		50-60
Planting		60/day		50-70
Fertilizer /Herbicide Application		70/day		
Harvesting		65/day	9:1	
Post-harvest		60/day		
Pulping (Coffee)		3.00/can		
Shelling (Coffee)		3.50/kg		
Hauling (Tomato)		20/box		
B. Off-farm ²				
		P/day	P/mo	
Plowing		120		
Planting and Crop Care		74		50-80
Harvesting*				1176-3528
All activities,	41		720	
C. Non-farm, by source ³				
		P/day	P/mo	
Chick vendor	1		1,000	
Vegetable retailer/dealer	5		1,420	
Livestock raising	6			4,533
Sari-sari store	12	98		20 - 200/day
Jeepney operator	2	300		
Motorcycle operator	1	80		
Carpenter	2	125		
House helper	3		767	500 - 1,000/mo
Sales lady	1		800	
Hilot	3		867	300 - 1500/mo
OCW (remittance)	1		2,000	
NGO Staff	2		2,500	2,000 - 5,000
Barangay Official	3		1,105	788 - 1,500
Employee	2		4,170	2340-3000
Teacher, tribal	1		1,000	
Teacher, elementary	1		8,605	

¹ What respondents paid.

² What respondents received.

³ For January - June 1998, only.

Table 17. Migration pattern by barangay, 1998.

Barangay	Residence							
	Lantapan		Other Lantapan		Outside Lantapan		TOTAL	
	N	%	N	%	N	%	N	%
Alanib	99	90%	2	2%	9	8%	110	100%
Balila	72	83%	6	7%	9	10%	87	100%
Baclayon	44	92%	0	0%	4	8%	48	100%
Songco	63	97%	0	0%	2	3%	65	100%
Kibangay	122	97%	2	2%	2	2%	126	100%
Victory	36	90%	3	8%	1	3%	40	100%
Basac	46	96%	0	0%	2	4%	48	100%
Cawayan	34	100%	0	0%	0	0%	34	100%
Total	516	92%	13	2%	29	5%	558*	100%

*Total persons in the sample households

Table 18. Tenure of sample parcels by barangay, Lantapan, January - June 1998.

Barangay	Priv. Title	Share own.	Tax Decl.	Share Tenant	Cash Rental	CLT	Missing	Total
Balila	16 53%	- -	1 3%	2 7%	8 27%	1 3%	2 7%	30 100%
Baclayon	9 60%	2 13%	1 7%	3 20%	- -	- -	- -	15 100%
Alanib	11 41%	4 15%	3 11%	7 26%	- -	- -	1 4%	27 100%
Songco	15 50%	2 7%	2 7%	- -	6 20%	- -	5 17%	30 100%
Kibangay	12 27%	1 2%	16 36%	6 14%	7 16%	1 2%	1 2%	44 100%
Cawayan	2 29%	- -	2 29%	2 29%	- -	- -	1 2%	7 100%
Victory	7 44%	- -	7 44%	- -	- -	- -	2 13%	16 100%
Basac	2 18%	- -	7 64%	1 9%	- -	- -	1 9%	11 100%
Total	74 41%	9 5%	39 22%	21 12%	21 12%	2 1%	13 7%	180 100%
1994 Data*								
No.	111 39	6 1	37 19	63 14	52 16	5 1	32 9	306 100

*Coxhead, 1995

Table 19. Farmers expectations on prices and production for next season, 1998.

Crop	Number of Parcels To be Planted	% of Farmers Expecting Higher Prices	% of Farmers Expecting Higher yield
Corn	62	7	2
Coffee	30	85	5
Potato	2		
Cabbage	5	50	50
Tomato	5	75	75
Other Vegetables	25	22	23
Other Crops	12		
Fallow	28		
Parcels that will be planted with other crops*	11		

*Alternative cro