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NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY

VISCA FOUNDATION FOR AGRICULTURAL AND RURAL DEVELOPMENT, INCORPORATED

VISAYAS STATE COLLEGE OF AGRICULTURE

THE EFFECTS OF LOGGING BAN IN REGION 8

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LIST OF ACRONYMS

BWII - Basey Wood Industries Incorporated

DENR - Department of Environment and Natural Resources

GPTDC - Great Pacific Timber and Development Corporation

LEAD - Livelihood Enhancement for Agricultural Development

MAP - Management Association of the Philippines

NACIDA - National Cottage Industry and Development Authority

NEDA - National Economic Development Authority

PAVA - Pava Logging Company

SJTC - San Jose Timber Corporation

TDI - Training and Development Issues Project

TLA - Timber Lease Agreement

ViFARD - ViSCA Foundation for Agricultural and Rural Development, Incorporated

ViSCA - Visayas State College of Agriculture

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ABSTRACT

The study which included 4 logging firms, 142 logging workers, 54 forest related industry establishments, and 100 related industry workers was conducted to determine the magnitude of economic dislocation effected by the logging ban in Region 8.

The major findings indicate that: 1) logging ban displaced more than 80 percent of the logging workers while the rest formed the skeletal work forces majority of whom were not hired on full-time basis; 2) an apparent increase in illegal logging was noted; 3) negative effect of logging ban was observed mainly from the decrease in: (a) the quantity and quality of food taken, (b) schooling of children, (c) recreation, (d) and family income. If the logging ban is lifted, all logging workers intend to reapply for the job they previously occupied in the company. If otherwise, more than 20 percent intended to stay and do farming or engage in business; and 4) despite its expected negative effects on related industries dependent on forest products, results indicate the absence of such impact on related industries and their workers in terms of volume of business of the establishments, employment of workers, workers' income and level of living of related-industry workers.

CHAPTER I

INTRODUCTION

The Logging Industry Situation

The Eastern Visayas region (Region 8) covers an area of about 2.1 million hectares (Table 1). Of this total area, more than 50 percent is classified as forest lands with an estimated forest cover of around 52 percent. This seemingly substantial amount of forest resources has induced logging firms to operate in the region. As of January 1989 six logging companies were issued timber lease agreements (TLAs) covering an area of about 298,629 hectares with an average annual allowable cut of 371,533 cubic meters (Table 2).

Table 1. Forest lands in Region 8, by province, 1989

PROVINCE	TOTAL AREA	FOREST LANDS		TOTAL
		TIMBERED	NON-TIMBERED	
Northern Samar	349,800	60,800	160,626	221,426
Eastern Samar	447,075	195,530	103,142	298,672
Western Samar	559,100	209,700	45,953	255,653
So. Leyte	173,460	26,000	62,930	68,930
Leyte	626,830	90,191	164,582	254,773
Total	2,156,265	582,221	537,233	1,119,454

Sources: 1. RDC Report, August 1989
2. Executive Summary of the Comprehensive Study on the Moratorium Order in Samar Island, DENR. Region 8, 1989

Table 2. Logging firms with timber lease agreement (TLA) as of January 1989

NAME OF LICENSEE/ LOCATION	TOTAL AREA (HA)	ANNUAL ALLOW-ABLE CUT (CU M)	TOTAL NUMBER EMPLOYED
1. Basey Wood Industries Inc., Western Samar and Eastern Samar	54,690	64,050	706
2. Great Pacific Timber and Development Corporation Western Samar and Eastern Samar	72,669	100,220	554
3. PAVA Logging Company, Inc., Eastern Samar	31,075	56,000	404
4. San Jose Timber Corporation, Eastern Samar	93,595	55,263	559
5. Timber Producers and Marketing Corporation, Southern Leyte and Leyte	26,600	80,000	361
6. Western Palawan Timber Corporation, Eastern Samar	20,000	16,000	215
TOTAL	298,629	371,533	2,799

Sources: 1. DENR, Region 8, Tacloban City
2. Annual Operational Plans, Various Logging Firms
3. Integrated Annual Operations Plan of Timber Producers & Marketing Corporation TLA No. 375 for Calendar Year 1988

The six logging companies employed an estimated number of over 2,500 workers, 30 percent of which came from the area where the firms were operating. In CY 1988, the logging firms paid revenues to the government amounting to more than ₱26 million.

In February 8, 1989, the secretary of the Department of Environment and Natural Resources issued an order calling for a moratorium on logging operations on the Island of Samar. The moratorium called for the suspension of all logging operations including movement of logs, lumber, and other wood products out of the island. As a result of the moratorium order, all the five logging firms in Samar temporarily suspended their operation except for one whose timber lease agreement was canceled triggering a massive layoff among the workers. The other firm operating in Leyte, however, continued operating on the basis that the order did not cover Leyte provinces.

The four logging firms operating in Samar continued to maintain their offices and retained the services of key personnel waiting for the moratorium order to be lifted. The displaced workers, however, were left jobless and some sought any available job so they could feed their family.

Objectives of the Study

The general objective of this study was to determine the magnitude of economic dislocation effected by the logging ban in Region 8. The specific objectives were threefold:

1. To determine the impact of the logging ban on:
   a. employment and income of displaced workers,
   b migration pattern of households,
   c. level of living of the affected workers.
2. To identify livelihood skills possessed by the displaced workers, and,
3. To determine alternative solutions and recommend appropriate livelihood projects for the displaced workers.

Methodology

Conceptual Framework. It has been a recognized fact that sustained logging activities have serious effects not only on the environmental conditions but also on the lives and property of people. As an offshoot of the growing clamor against the environmental consequences of continued logging activities, two pending bills are proposed for approval: 1) total logging ban (SB 706), and 2) selective logging ban in provinces with existing forest cover of above 40 percent (SB 917).

This study focused on the cross-section of logging firms, related industries partly dependent on logging firms, and households dependent on such firms and industries. Among others, the study brought into focus the:

a) Families engaged in the logging industry;
b) Migration pattern of the population directly dependent on logging ;
c) Income pattern/living conditions;
d) Sources of income other than logging;
e) Skills/potentials of affected population; and
f) Livelihood projects that may be appropriate for the affected population (other than logging related activities) based on the resources of the region and the livelihood programs of government line agencies.

With the two proposed bills under consideration, the study documented the economic and social dislocations including the forest destruction and its consequential effects, if the total logging ban is not lifted in the areas affected.

<u>Data Sources and Data Collection</u>. The data and information collected were taken from: a) the logging firms and the related industries dependent on logging firms, and b) the households dependent on these logging firms and related industries.

<u>Survey design</u>. Relevant data and information needed in this study were collected based on the following strategy:

<u>Logging firms</u> - Complete enumeration of four affected logging firms within the region

Households employed in logging firms	- Stratified random sampling of 142 logging workers by type of job to select the representative households employed by the four logging firms
Related industries	- Stratified random sampling of 54 establishments by type of industry to choose the representative industries
Households from related industries	- Complete enumeration of 100 workers employed in chosen related industries who favorably responded during the survey

Data collected. The various data and information collected from various sources included:

o Logging firms

- type of forest products
- quantity of products
- other business ventures and entrepreneurial skills
- utilization of equipment in related businesses
- possible alternative uses of facilities after logging ban
- number of dependent employees and laborers
- forest protection/destruction

o Related industries

- nature of enterprise
- volume of raw materials derived from logging firms
- number of employees/laborers
- utilization of facilities in related businesses
- utilization of facilities after logging ban
- other business and entrepreneurial skills
- percent volume of business affected by logging activities

o Households (connected with logging firms and industries)

- selected demographic characteristics
  - household size
  - number of dependents
  - residence prior to employment
- socio-economic characteristics
  - income sources and estimated income
  - occupation of household members
  - skills possessed
  - general levels of living
- perceptions and attitudes

Analytical Tools. Descriptive statistical tools were mainly used to analyze the data and information collected from the survey. Analysis and presentation of results took into consideration the effects of the total logging ban in the affected areas.

CHAPTER II

LOGGING FIRMS AND LOGGING WORKERS

This chapter discusses the basic data and information about the logging companies and the logging company workers included in the study. The data and information presented in this chapter were taken from field interviews with the management, key personnel, and logging workers. Secondary data such as those from Annual Operations Plans of logging firms and other related documents were likewise utilized. Informal interviews with key informants were also employed as supplementary source of information as well as for verification of data taken from primary sources. Four logging firms and 142 logging worker-respondents were included in the study.

The Logging Companies

The four logging companies included in the study were: Basey Wood Industries Incorporated; Pava Logging Corporation, Inc.; San Jose Timber Corporation; and Great Pacific Timber and Development Corporation (Table 3).

Profile of TLA Holders

Shown in Table 4 are some basic information about the respective TLA licensees included in the study. A total area of 252,029 hectares was covered by the four TLA-holders. The annual cutting area and allowable cut was 5,080 hectares and 340,264 cu m, respectively. It can be noted that of the four firms, the San Jose Timber Corporation had the highest TLA area and annual cutting area as well. On the other hand, the Great Pacific Timber and Development Corporation ranked second in terms of TLA area but with the highest annual allowable cut.

TLA Forest Distribution

Table 5 decomposes the entire TLA area by forest classification and by logging firm. As a whole, it can be noted in the table that 50 percent of the total area under TLA still consists of virgin or old-growth forest, 27.69 percent is residual, 7.95 percent is mossy or rocky, and 5.51 percent consists of wilderness area. A cursory look reveals that a mere 1.67 percent of the total area under TLA is considered tree plantation.

Places Covered by TLAs

Table 6 indicates that of the three provinces in the whole Samar island, the places covered by timber lease agreement (TLA) were mostly concentrated in Eastern Samar followed by Western Samar. It should be noted that in the whole area of Region 8, TLA areas which are within the provinces of Western and Eastern Samar are the only ones which fall above the 40 percent forest cover. The other areas particularly those within the provinces of Leyte and Southern Leyte have a much lower forest cover to date.

Logging Firms' Employment Situation

Before the implementation of the logging moratorium, a total of 1,935 workers were reportedly employed by the four logging companies. However, during the implementation of the logging moratorium, more than 80 percent of the workers across firms were displaced from their jobs. The massive displacement of workers occurred after the companies accomplished all their operational activities concerning the remaining log inventoried in 1988 operations. Figure 1 indicates that of the total 1,935 workers employed by the four logging companies, only 288 workers were retained according to the survey undertaken in late 1989. Some 1,647 logging workers or 85 percent of them were displaced due to the implementation of the logging moratorium in Region 8.

<u>Work implementation of retained workers</u>. Although a number of workers were retained by the logging companies as skeletal work force for the continuous management and operations of critical tasks within the logging compound and within the TLA areas, a number of these workers were not employed on regular basis as they used to be before the implementation of the logging moratorium. As gleaned from Table 7, the nature of work implementation for the skeletal work force was either: on emergency basis (as the need arose), no overtime, no work no pay policy, or rotational basis. This observation implies a decline in economic benefits and privileges of workers that were

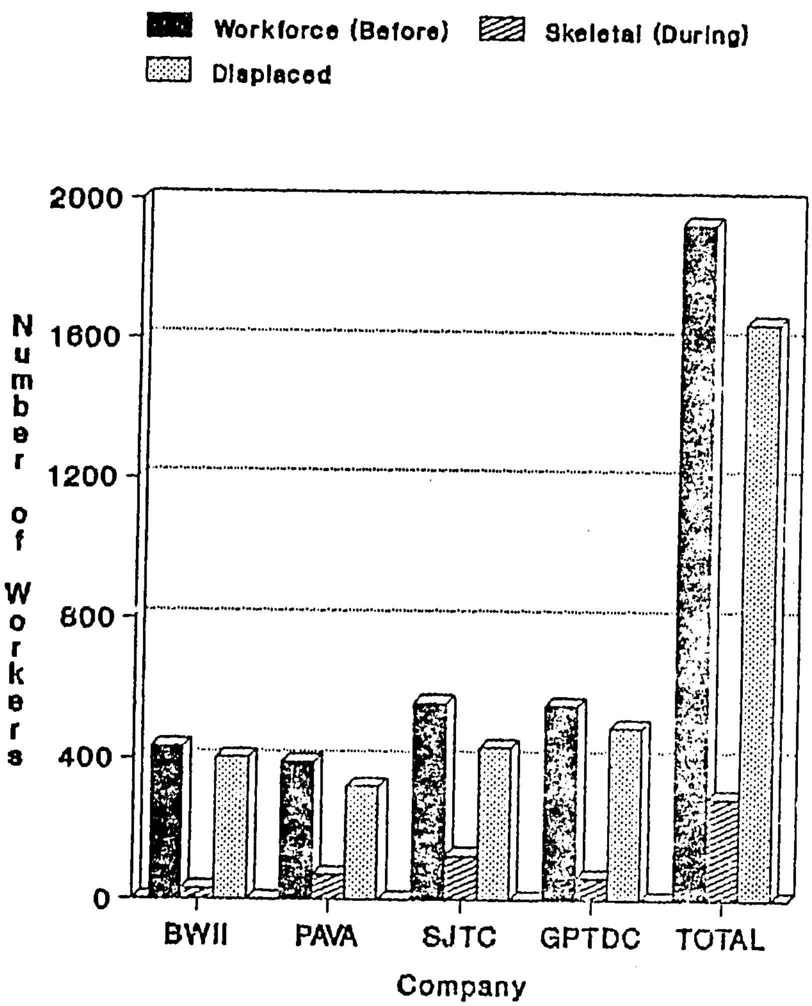

Fig. 1. Work force before moratorium and skeletal work force during moratorium

retained by the logging companies as a result of the implementation of the logging moratorium.

Volume of Production

Table 8 illustrates the type and volume of forest products produced by the four logging companies in 1988 and in 1989. It can be recalled that the logging moratorium took effect in February 1989; hence, the 1989 production refers to the volume of forest products included as stock in inventory before the imposition of the logging moratorium.

For the year 1988, 209,077 cu m of round log and 51,878 cu m of squared and manufactured lumber were harvested by the logging firms. Of this volume of harvested forest products, Baswood contributed the highest production (115,326 cu m) followed by Great Pacific (84,396 cu m). In 1989, only 63,885 cu m of round log and 11.054 cu m of manufactured and squared lumber were harvested by the logging companies. The Great Pacific logging corporation produced the highest volume (25,927 cu m) followed by San Jose Timber (18,352 cu m). As demonstrated in Table 8, the harvested volume of forest products decreased by about 72 percent due to the implementation of the logging moratorium. It must, however, be pointed out that the harvested volume in 1989 represents the volume of cut-log inventories before the implementation of the logging moratorium. The said inventory was undertaken by the logging companies in coordination with the DENR personnel.

Equipment Utilized

Table 9 shows the list of heavy and light equipment utilized by logging firms. It is worth noting that before the implementation of the logging moratorium most of the equipment were effectively utilized in logging and its related operations. Although the utilization of these equipment was already affected a few months after the moratorium, decrease in utilization rate of equipment was not yet felt badly by the firms in view of the remaining tasks concerning the remaining inventory of logs prior to the implementation of the moratorium. After the second quarter of 1989, however, all the firms totally shut down their activities as the log inventory within the TLA cutting area was already exhausted. Because of this, almost all of the logging equipment were "grounded." A few of such equipment needed to sustain the most basic activities and needs of the remaining skeletal work force within the TLA sites and the logging compound were the only ones utilized during the moratorium.

Community Services

Aside from logging and other related activities, the logging companies conducted various community services within the TLA sites and the adjacent villages. All the logging firms were actively involved in community services. The four firms covered by the survey, particularly the Great Pacific Timber and Development Corporation and Pava Logging Company, Incorporated performed a number of services within the TLA sites and the adjacent villages such as: 1) granting of scholarships to logging workers' children, 2) donation of wood or lumber to the village or to military camps for repair and/or construction of school, chapel, and other projects. 3) making available free medical and dental assistance to barangay residents, 4) employment of village residents in reforestation and other logging related projects, 5) provision of free transportation facilities especially during cases of emergency (Table 10).

Social forestry programs. All the logging firms implemented the Integrated Social Forestry (ISF) programs in cooperation with the Department of Environment and Natural Resources (Table 11). All the firms also distributed forest and fruit tree seedlings to forest occupants. PAVA was the only firm which did a forest occupants' census, conducted an information drive on forest protection, and coordinated barangay assemblies.

Effects of Moratorium on Forest Protection

This section covers a comparative assessment on forest protection activities within and outside the TLA areas before and during the implementation of the logging moratorium in the region. The information in this section was taken directly from field interviews with the management and key personnel of the logging firms, informal discussions with logging workers, from village officials and other key informants.

The protection and preservation of the country's forest resources is an ultimate goal of society in order to assure and preserve an ecologically sound and wholesome environment for all living creatures on the earth's surface. Basically, the major threats to forests within or outside the TLA areas are the shifting cultivation or "kaingin" and illegal logging.

<u>Shifting cultivation</u>. Shifting cultivation was observed to be common outside and within some of the TLA sites. Kaingin or shifting cultivation has long been a recurring problem and an illegal activity perpetuated by forest occupants and some logging workers on logged-over areas and in some open lands within and outside the concession areas. The system of clearing and burning of second-growth vegetation contributes mostly to the destruction of forest resources. As gathered from field observations and interaction with key informants, during the implementation of the logging moratorium, the kaingin

areas did not significantly increase due to the distance of the kaingineros' respective residences located within the sawmill or logging compound. Hence, before and during the logging moratorium the extent of the kaingin problem generally remained at its usual status.

Illegal logging. Illegal logging within or outside TLA sites has been a common occurrence not only as a source of livelihood in economically depressed areas of the countryside but as a very profitable business undertaking for investors who have appropriate "linkages" to exploit the existing forest resources. In fact, a DENR comprehensive study cited rampant handsawing of flitches and lumber on Samar island (DENR, 1989). Further, the report frustratingly indicated the impracticability of controlling such illegal activities.

Table 12 shows the nature of forest protection activities done by logging firms. Of the four logging firms surveyed, two claimed absence of illegal logging within their concession areas before and during the implementation of the moratorium. The successful control of illegal logging in their areas was done through regular foot patrol, forest protection campaign, and installation of warning signs even before the logging ban was implemented. These forest protection activities are still practiced up to the present. Outside their TLA area, however, key personnel of the firms reported that illegal cutting and transporting of lumber were done by village residents with "interlinked" support from businessmen in other localities who possessed complementary business interests with the production of lumber. The other two firms reported the occurrence of illegal cutting of trees within their TLA areas even before the moratorium was implemented. One of the firms claimed that some village residents with financiers from Tacloban City practiced illegal logging within the TLA area. Although it was claimed by the management of one logging firm that villagers were the only ones involved in illegal logging during the period of logging moratorium, field observations strongly indicated the involvement of the logging firm's personnel in such activities.

Village residents adjacent to a logging compound reported the obvious existence of logging activities within the TLA site vacated by a logging firm whose TLA was canceled by the DENR. The villagers particularly noted the truckloads of fresh-cut logs hauled, processed into manufactured lumber, and finally transported to Tacloban City as the major trading center in the region. Such presence of fresh-cut logs piled up at the log pond was likewise noted by the survey team who conducted the survey in the area. Likewise, there was the presence of armed men whom villagers identified as military personnel reportedly serving as company guards for their operations. The above observation tends to conform with the Daily Inquirer's (March 6, 1990, p.12) report which pointed out the involvement of at least two highly influential government officials in setting up a front logging company on Samar island.

In another TLA site, illegal cutting of trees likewise existed. It was claimed by local leaders that illegal cutters were provided with power saws, daily wage, meal allowance, and other economic benefits by some financiers from Tacloban City. These activities were reportedly going on and has continued at an accelerated rate after the imposition of the logging moratorium probably because of the high demand for lumber when the logging moratorium was implemented.

The Logging Workers

Of the four logging firms visited by the survey team on the island of Samar, 142 logging worker-respondents were included in the study. The four logging firms visited and the number of workers interviewed per firm is presented in Table 13.

Characteristics of Logging Worker-Respondents

This section covers a brief description of the relevant characteristics of the logging workers which are helpful in gaining insights and better understanding of their socio-economic status before and during the implementation of the logging moratorium.

Age. Age is a very good indicator of the potential mobility of a group of people. It can be generally noted that when workers are relatively young, they tend to move from one place to another in search for available work and and better paying jobs. As they grow older, the general tendency is to settle down in a particular place.

The study found that, in general, the logging-worker population was a relatively middle-aged group with a mean age of 38 years (Table 14). This age group is not really old but it can imply a reduced mobility because of the increased competition with younger men for jobs.

Marital status. The study also found that about 87 percent of all the workers included in the study were married. This findings may have some influence on their decisions to move to other places. Keeping one's family adequately fed, clothed, sheltered, and educated demands that these workers look for alternative sources of income. The desire to go job hunting in other places has not really been that strong because of uncertainty and the difficulty of moving an entire family with an average size of five members.

Place of Origin

The workers' place of origin helps us to understand the possible reasons why displaced workers have continued to stay in the logging camps even though the firms have been closed due to the logging ban. The study revealed that about 72 percent of all worker-respondents were not natives of the place (Figures 2 and 3). They were mostly from outside Region 8. This finding has important implications on the difficulty of the displaced workers to return to their hometowns for economic as well as personal considerations. The main economic consideration was the cost of moving the whole family. The others also had married women from the place. The decision, therefore, to relocate somewhere else became quite complex.

Employment Characteristics

Method of landing job. The method(s) used in obtaining jobs in the company suggest the thoroughness of the screening process employed by the firm. It can be inferred that specialized skills, experience, and efficiency were major considerations in the eventual selection of workers in the firm.

Majority of the workers (61%) indicated that they were able to get their job by applying for it (Figure 4). Then there were those who were recruited (31%) because of their specialized skills and their previous experiences as sawmill operators or operators of heavy machinery. Only very few workers (8%) got their jobs through "recommendation."

Length of service and employees' benefits. Most of the logging firms were relatively new in their present locations. While it is true that these logging firms had been in the logging business for quite some time, these

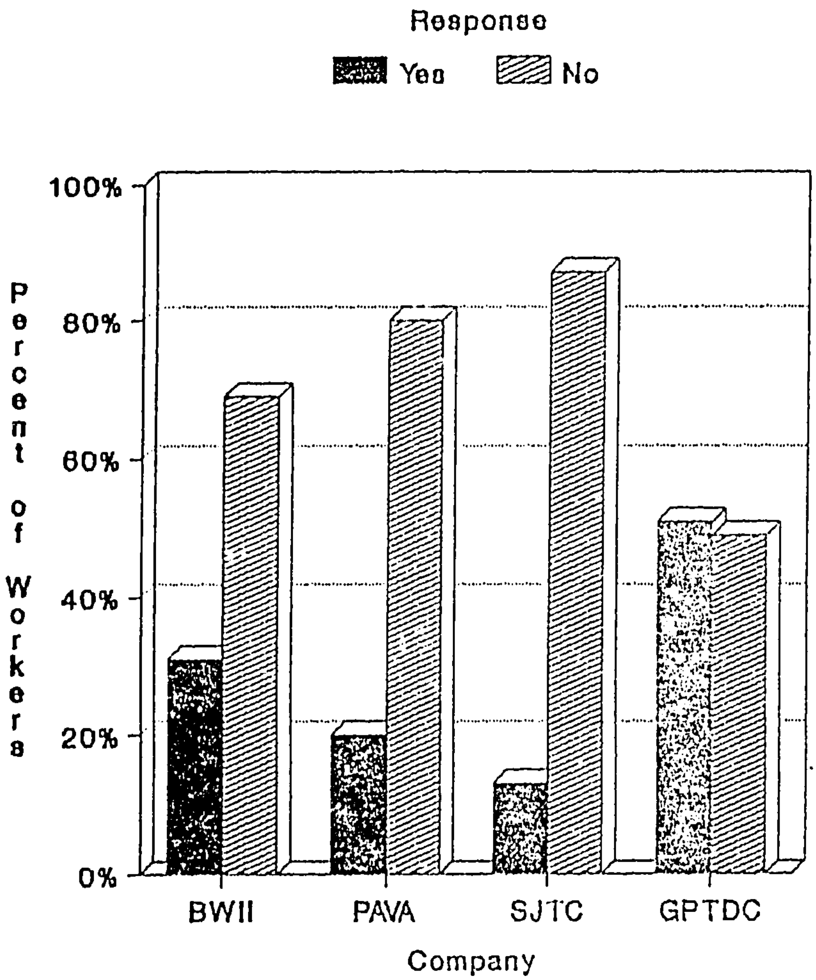

Fig. 2. Distribution of logging workers as to whether or not they originated from the place

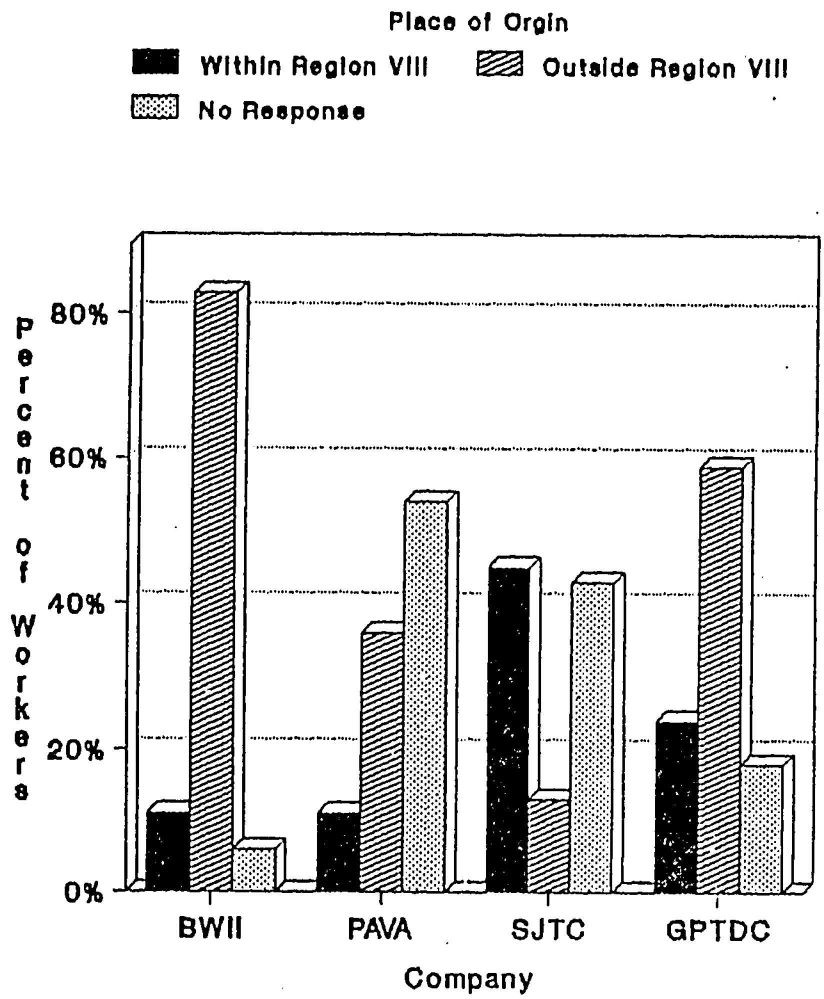

Fig. 3. Origin of logging workers who did not come from Samar

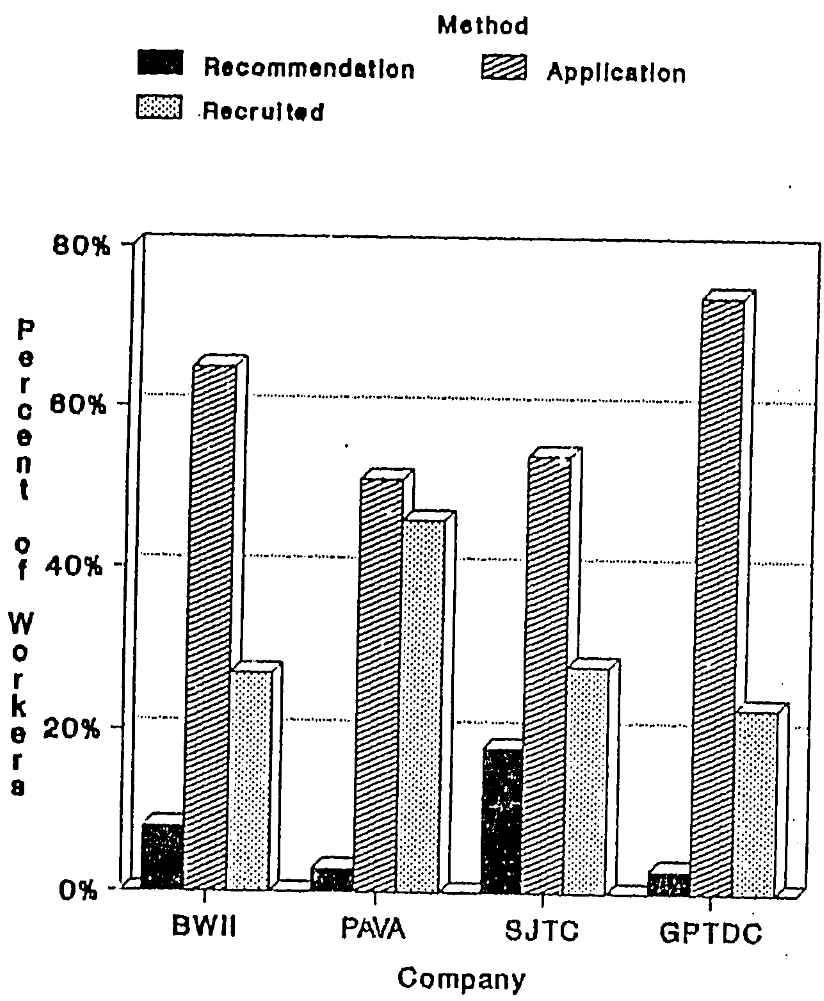

Fig. 4. How logging workers landed their job

firms had newly moved to their present locations from other areas. The general practice of these firms is to take along with them their skilled workers when they moved. It is in this regard that they had not yet really been able to recover their initial investments in their present locations.

The study shows that, on the average, workers had been with these companies for about seven years. These firms usually provide company fringe benefits mandated by law such as insurance, bonus, housing, and a few others as shown in Table 15.

Types of Job and Livelihood Activities

The types of job that logging workers perform are presented in Table 16. These jobs are categorized as: a) administrative, b) workshop/motorpool, c) logging/wood, d) logpond/transport, e) forestry/reforestation, f) sawmilling, g) security, and, h) Utility.

These groupings represent the broad categories of the normal work force of the logging companies. As stated in the previous section, about 85 percent of the total number of workers across firms were laid off leaving only an average of 15 percent as skeletal force due to the reduced activities of the logging firms. Those who were laid off, however, continued to stay in the logging compounds for various reasons. Meanwhile they engaged in various kinds of part-time livelihood activities to support their families.

Livelihood Activities

The result of the assessment of the logging workers livelihood activities other than their major occupation is presented in Table 17. The table shows that about 80 percent of the respondents did not have other livelihood activities as a source of income besides the job they were hired to do. The rest went into some small business, fishing, carpentry, and other such jobs.

The logging workers who were able to find alternative jobs faced various problems related to their new occupation as shown in Table 18. The biggest problem reported was the low salary they were now getting from their jobs. The others complained that there was no more overtime pay as in the logging company and that most of the time the salary was delayed. To supplement the income of the household head, wives and children tried to look for work to help make both ends meet. Unfortunately, many of the wives and children were not able to get into productive activities.

Table 19 shows the different occupations of logging workers' wives. Of the total number of wives interviewed, 82 percent were not involved in any livelihood activity. The other 18 percent were able to find income-generating activities such as gardening, business, and handicrafts. Some of the grown-up children also helped in supplementing the income of the logging worker-respondents by working as housemaids, salesgirls, and hired hands.

Impact of Logging Moratorium

This section presents a comparative assessment before and during the implementation of the logging moratorium on food consumption, meal patterns, schooling of children, coping mechanism, income, income distribution, and other matters concerning the respondents.

Type of food eaten. An important indicator of how the logging workers fared after the logging ban was enforced can be gleaned from the type of food these workers had before and after the ban. Tables 20 to 23 present the type of food and beverages eaten consumed before and after the implementation of the logging moratorium or ban.

From these tables, it is immediately apparent that there were marked decreases in the amount of meats, eggs, fish, rice, bread, and canned goods consumed, while there was a marked increase in the consumption of dried fish, rootcrops, and porridge. What these tables suggest is that the workers and their families were forced to eat less as well as to shift to more inferior goods to be able to survive the very difficult times. The workers themselves made this very apparent when they reported that their biggest problem was very low salaries.

Meal Patterns. The normal meal pattern for a family requires that meals be served at least 3 times a day. The meal may consist of the basic rice and fish, and the quality depends mostly on the family's purchasing capability. Table 24 presents the observed changes in the kind and amount of food consumed by workers of the logging companies before and during the logging ban. Again, it can be plainly seen that the workers have been forced by circumstance to eat less of meat and other protein sources and eat more inferior goods as substitute. Total family income has gone down so much that the workers' families no longer had any choice on this.

Schooling of children. Another indicator of the possible effects of the logging ban on the workers' living condition was their capability to send their children to school. Figure 5 suggests that there was a decrease of about 15 percent in the enrolment of children of logging workers as a direct result of their being displaced. About 30 percent of the respondents stated that they could not afford anymore to send their children to school because of the loss of their jobs (Table 25).

Coping mechanism. When asked how they managed to survive during the logging ban, some respondents at the SJTC logging company mentioned that sometimes the Department of Social Welfare and Development (DSWD) visited their area and distributed a few kilos of rice and canned goods but DSWD visited their place only once. They managed to

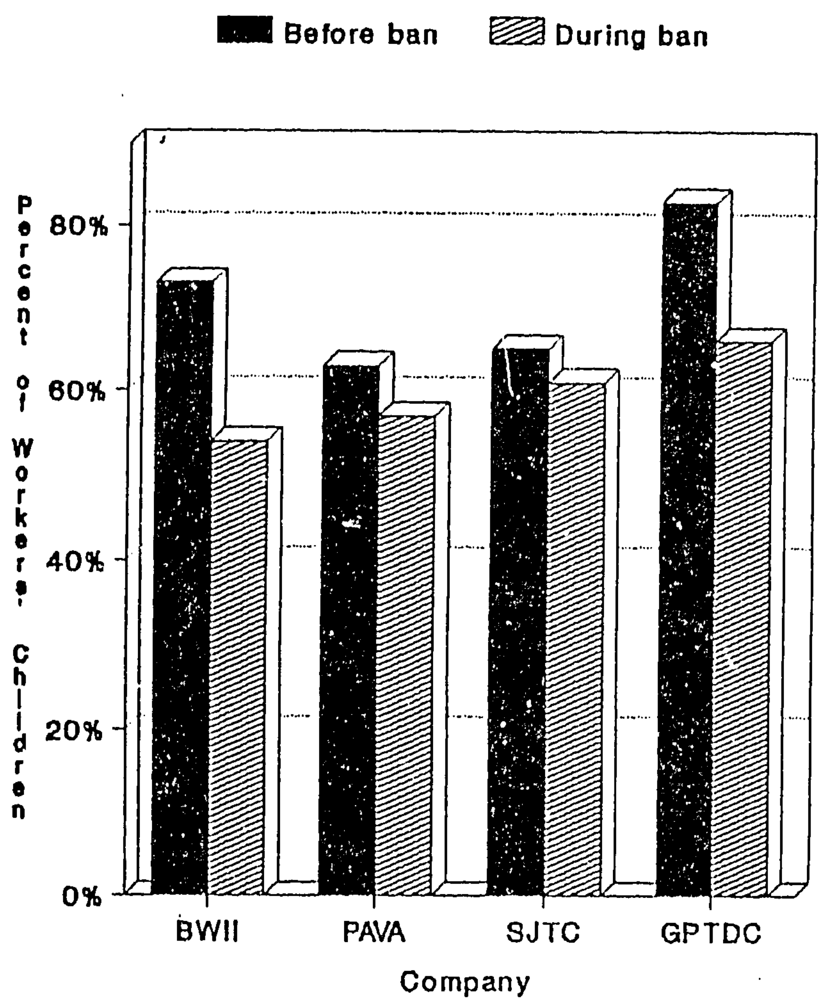

Fig. 5. Percentage of logging workers' children in school before and during ban

survive simply by tightly budgeting whatever they earned from emergency employment as shown in Table 26. Some displaced workers tilled small patches in their backyards and some rented an area from the logging firm for farming.

Assessment of workers' income. Before the ban was implemented, a great majority (92%) of the workers reported that they did not really have to look for alternative sources of livelihood because their income was enough for their families (Figure 6). Sometimes they could even afford to indulge themselves in recreational activities such as playing basketball, drinking tuba with friends, watch beta shows and movies as shown in Table 27. During the logging ban, majority (80%) of the respondents said that their income was not sufficient anymore.

Family income. Workers in the different logging companies reported monthly income reductions from primary and secondary sources. Primary sources were those jobs relied upon by the income earner for basic family needs. Secondary income included those derived from part-time livelihood activities.

Table 28 shows the increase and decrease of family income before and during the period of logging moratorium. There was an observed significant decrease in the income from the major source of livelihood and an insignificant increase from the supplementary income from other sources. The decrease in income from major sources ranged from

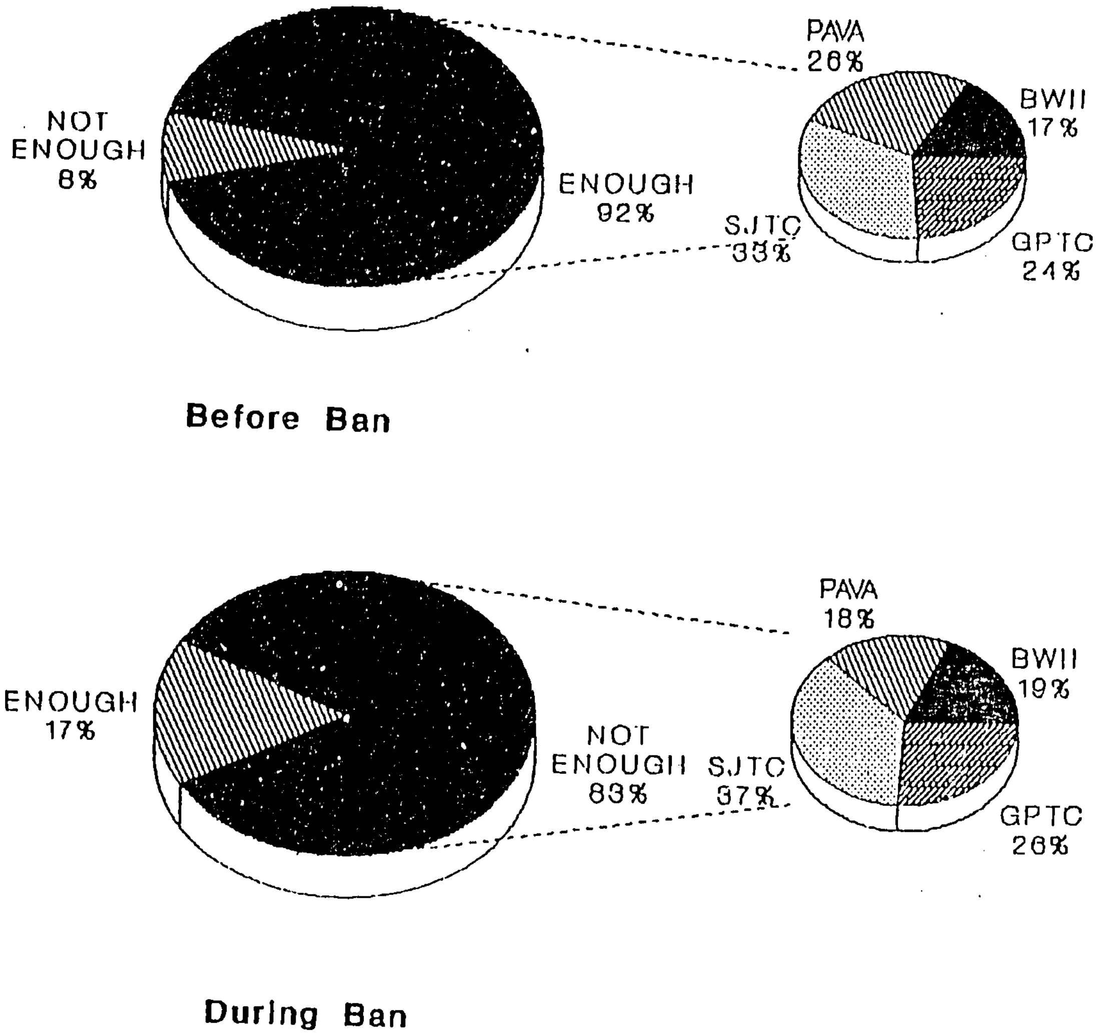

Fig. 6. Logging workers' assessment of their income before and during the ban

₱625 to ₱2,094. Those who were still employed by the company were also affected because of the slack in the activities and the practice of rotating the skeletal working force maintained by the logging firms.

<u>Income distribution</u>. Figure 7 shows the monthly income distribution of worker-respondents, by firm, before and during the ban. It can be seen from the figure that a great majority of the respondents received monthly incomes from primary and secondary sources ranging from ₱2,001 to ₱3,000 (70%) and some even earned incomes ranging from ₱3,001 to ₱4,000 (18%) before the logging ban. However, the reported monthly income of the majority of these workers during the ban was less than ₱1,000 (49%). There was a general trend of decrease in number among those having high income and an increase of people with lower income.

<u>Immediate plans of displaced workers</u>. The displaced logging workers were also asked what their most immediate plans were if: (a) the ban was lifted; and (b) the ban was not lifted. In the first case, all the workers indicated that they would all reapply for their old positions in their respective companies. However, if the ban was not lifted, the three most appealing courses of action were: 1. apply for another job (36%); 2. migrate to another place (36%); and 3. stay in the place and do some actual farming (17%).

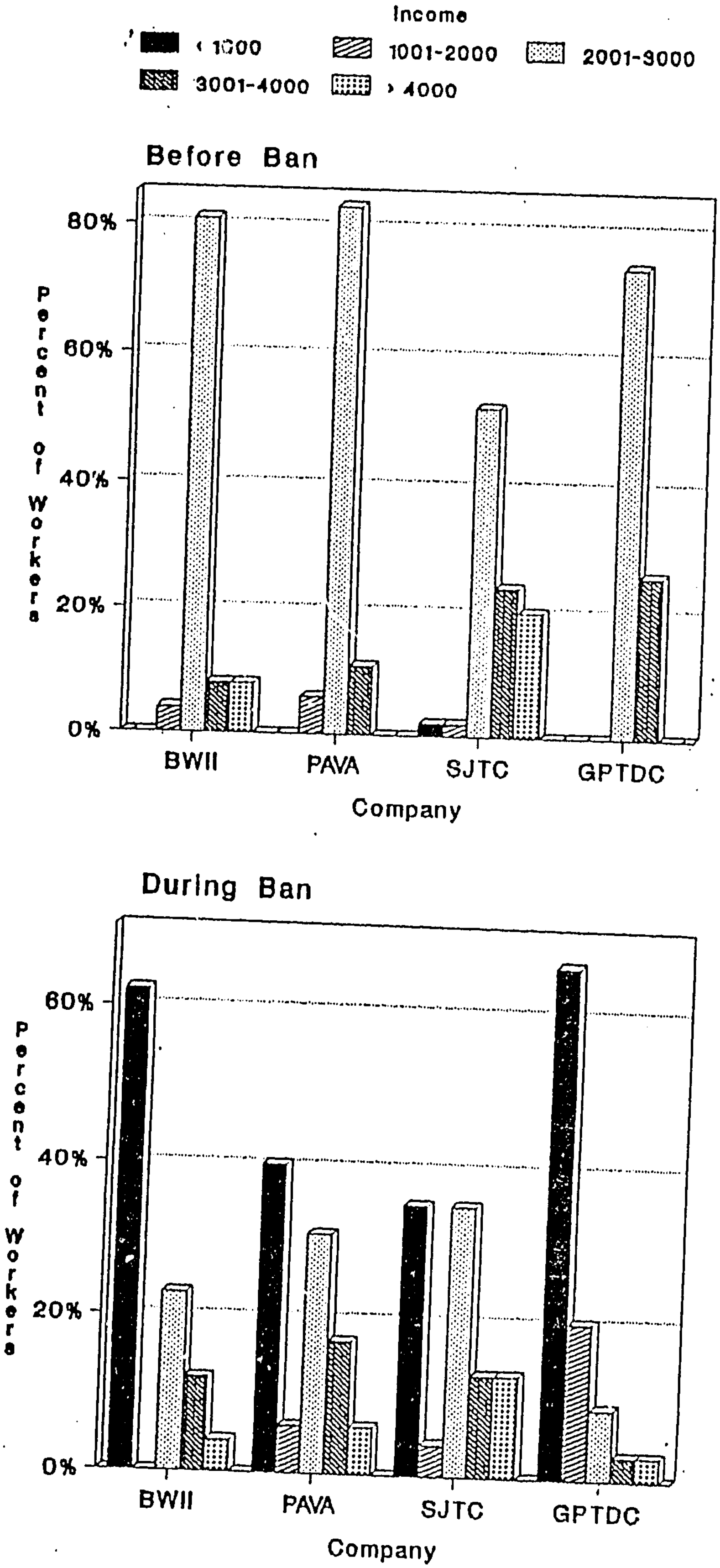

Fig. 7. Monthly income of logging workers from primary and secondary sources before and during the ban

Very few of the worker-respondents indicated they would go into business (6%) (Figure 8).

Farming activities. As a consequence of the loss of their primary source of income, some of the displaced logging workers went into farming. One problem with this is that since most of these workers were not from the place they had to resort to kaingin to be able to open uplands they could farm. Majority of the workers indicated that they first sought the permission either from the logging company or from the private owners of the land before they did the kaingin.

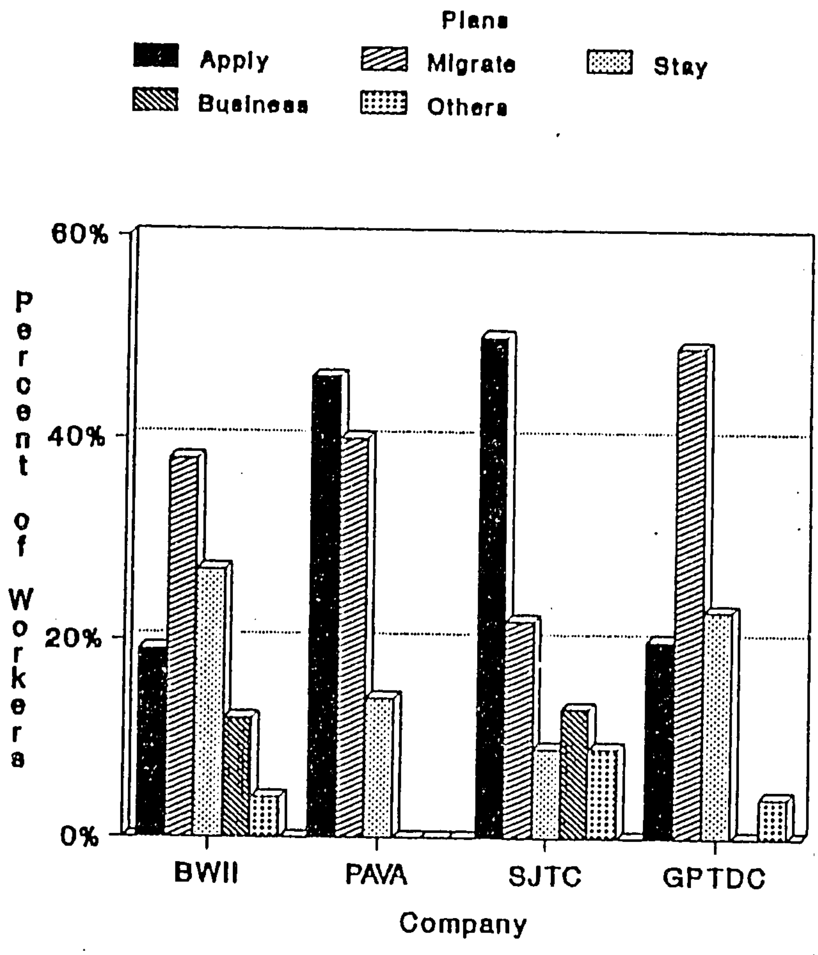

Fig. 8. Immediate plans of the displaced workers if logging moratorium is not lifted

CHAPTER III

RELATED INDUSTRIES AND WORKERS

This chapter discusses the general profile and the business operations of forest-related industry operators and workers before and during the implementation of the logging moratorium in Region 8. Basic data and information included here were obtained from a survey of randomly selected lumber and furniture establishments within the region and from the workers.

Related Industry Owner-Respondents

Brief Profile

Based on the listing of forest-related industries obtained from the DENR and from the NACIDA, majority of lumber as well as furniture establishments which were in operation at the time of the survey were concentrated in the province of Leyte especially in Tacloban City. At the outset, although data collection from the above-mentioned group of respondents was met with some difficulty, a total of 54 randomly selected establishments, (36 lumber dealers and 18 owners of furniture enterprises), favorably responded to the survey undertaken.

<u>Location and type of industry</u>. Of the five provinces within the region, majority of the respondents included came from Leyte Province for both lumber and furniture establish-

ments, followed by those from Western and Northern Samar (Table 29).

Ownership and entrepreneurial activities. Almost all of the included establishments were operated and managed as sole proprietorship enterprises (Table 30). According to the nature of entrepreneurial activities that the establishments were engaged in, it can be noted that majority (61 %) of the furniture operator-respondents reported no other business involvement except furniture. Data and information gathered from the survey and from field observations indicate that a high proportion of lumber dealers were engaged in other entrepreneurial activities such as merchandising, construction, gravel and sand, hardware and other business ventures. It is quite important to note that most of the entrepreneurial activities of lumber dealer-respondents were complementary to lumber dealership (Table 31).

Years in business. Table 32 presents the distribution of lumber and furniture operators according to the number of years in business operations. It can be noted that most of the respondents had been in the business for an average of 10 and 6 years, respectively. For furniture operators, 33 percent of the firms had been in operation from 9 to 12 years followed by another 22 percent who had been in the business for 5 to 8 years. For lumber dealer-respondents, majority (61%) had been in the business for 1 to 4 years.

Other information. Shown in Table 33 are related entrepreneurial information reported by the lumber and furniture establishments. Majority of the lumber operator-respondents claimed that their management and technical skills were adequate. On the other hand, majority (61%) of the furniture operators did not make any positive or negative assessment. When asked on their possible needs for skills training, a great majority of both lumber and furniture operators did not give any response. As a whole only about 15 percent of the total number of respondents reported the need for skills training particularly on technically-oriented tasks related to machinery and carpentry work.

As to plans for business expansion, majority (53%) of the lumber operator-respondents reported of having plans for expansion while only about 30 percent of furniture operators thought of the same business plans. Of the respondents who reported positive plans for expansion, 100 percent of the furniture and 79 percent of lumber operator-respondents claimed that lack of capital was their main constraint for expansion.

Forest Products Handled by Related Industries

Shown in Table 34 are the types of products handled by related-industries of entrepreneur-respondents. For both furniture and lumber establishments, 60 percent, 31 percent, 8 percent, and 1 percent of the forest products handled by the respondents consisted of manufactured lumber, furniture products, squared lumber, and upholstery, respectively. Of the furniture operators included, on the average, 94 percent of the total product handled were products such as sala sets, dining sets, cabinets, dividers, office furniture, and other furniture products. For lumber dealers, on the other hand, 89 percent of the forest products they handled consisted of manufactured lumber while the remaining 11 percent consisted of squared lumber.

Impact of Logging Moratorium

This section looks into the operational activities of related-industry entrepreneurs during and before the implementation of the logging moratorium in Region 8.

Number and Salary/Wage of Employees

Lumber employees. Before the logging moratorium took effect, statistics gathered from 36 lumber entrepreneur-respondents indicated a total of 165 workers employed or an average of about 5 workers per establishment. During the moratorium, a slight drop by 5 workers or a total of 160 workers was observed. On the average, however, the number of workers remained the same (Table 35). The difference in total number of workers was traced to the fact that some of the firms stopped their operation during the logging moratorium.

After scanning the average monthly salary or wages by type of job including the mean difference of salary or wages during and before the imposition of the logging moratorium, data revealed that the monthly salary or wage given by entrepreneurs to workers during and before the logging moratorium was more or less the same in majority of job classifications. It can likewise be gleaned from the table that the average wage per month was higher for jobs that required certain skills such as planer, band saw operator, driver, cutter, and forklift operator as compared to the non-skilled type of job such as piler, helper or utility man, and laborer.

From the above information, it is quite obvious that the operations of lumber dealers were, in general, not badly affected by the implementation of the logging moratorium.

Furniture employees. A similar observation as that in lumber establishments, before and during the imposition of the logging moratorium, was noticed in furniture establishments. As shown in Table 36, the total number of workers from 18 furniture shops before and during the logging moratorium was 111 and 90, respectively. The difference in the total number of workers in this case was mainly due to the slight reduction in the number of employees for certain types of operation and the reduction of the total number of establishments (15) in operation during the implementation of the logging moratorium. On the average, however, the number of employed workers during and before the moratorium was the same.

A comparison of the total and average number of workers including the monthly salaries or wages given by furniture establishments between the two periods reveals no prominent difference from which to draw conclusive statements concerning the effect of the logging moratorium on employment and economic benefits of related-industry workers.

Sources of Raw Materials

Lumber dealers. Data and information as to where they obtained the raw materials needed in their respective operations were gathered from the related-industry operator-respondents. Although at the outset majority of the respondents were hesitant to provide such information, the absence of specific names of the sources of raw materials convinced them to cooperate.

On the average, 76 percent and 69 percent of the needed raw materials by lumber establishments, before and during the logging moratorium, respectively, were obtained from logging firms within Region 8 (Table 37). The slight drop by an average of 7 percent of the total volume of raw materials procured occurred during the implementation of the logging moratorium. It is interesting to note that during the logging moratorium, there was also a 6 percent average increase in total volume of raw materials procured from small scale permit-holders within Region 8. The key informants reported that these small permit-holders were underground small-business establishments that served as alternate suppliers of squared and/or manufactured lumber.

A cursory look at the distribution of the sources of raw materials by lumber establishments during and before the imposition of moratorium indicates an increased volume of participation by "small permit holders" as suppliers of lumber. The result seems to confirm the report on the increase of illegal logging operations gathered from informal field interviews with residents and key informants within the TLA sites or from adjacent villages.

Furniture enterprises. For furniture makers, the logging companies operating within the region and the small permit-holders were the major sources of raw materials. The minor sources were the lumber dealers and logging firms outside the region. Considering the average volume of raw materials utilized by furniture owner-respondents before and during the logging moratorium, there was an observed drop from 48 percent to 36 percent of average raw materials that came from logging firms within the region. As shown in Table 37, such a drop in supply of raw materials coming from Region 8 was matched by an observed increase in the average raw materials obtained by furniture operators from outside the region during the implementation of the moratorium.

The data indicate that as far as the furniture operators are concerned, on the average, the logging moratorium increased by about 12 percent the acquisition of raw materials from other regions.

Types of Raw Material

Table 38 shows the types of raw material procured by the related industry operator-respondents. For lumber dealers, manufactured lumber comprised more than 85 percent of such materials and the rest were in the form of squared lumber. More than 60 percent of the raw materials utilized by furniture makers, on the other hand, consisted of hardwood such as narra and the rest were softwood such as lauan.

Considering the before and during the imposition of the moratorium, The types of raw material utilized by both the lumber and furniture establishments generally did not vary.

Volume of Production

Business entrepreneurs are always sensitive to questions concerning the specifics of their business operations such as production and productivity, operating costs, and the profitability of their enterprise. Depending on the type of information being collected, the access to these type of are highly dependent on the rapport and the degree of confidence established by the person who asks the needed information from the entrepreneur. Most likely, the respondents would respond to the queries but experiences have shown that businessmen tend to "window dress" the data and information they provide to researchers and other interested individuals. With the such limitations, the following data provided by the related-industry entrepreneurs were taken regardless of whether honest or "window-dressed." On matters involving production and scale of operation, however, the possibilities of understatement was more expected than overstatement.

Lumber products. Before the implementation of the moratorium, the average volume of squared and manufactured lumber handled by lumber dealers was 57,000 bd ft and 90,673 bd ft, respectively. During the moratorium, the volume of squared lumber handled by the respondents increased to 80,373 bd ft or an increase of 41 percent. On the other hand, the average volume of manufactured lumber handled by the respondents decreased to 68,886 bd ft or a decrease of 24 percent compared to the volume before the imposition of the moratorium (Table 39).

As gleaned from the table, the implementation of the moratorium in the region brought about a significant change on the average composition of the type of forest product handled by lumber establishments. On the average, however, the volume of forest products handled by lumber establishments were not significantly affected.

Furniture. Furniture entrepreneurs handled quite a number of products ranging from manufactured lumber to various finished furniture such as sala sets, dining sets, and office tables. Scanning through the types of finished products during and before the moratorium periods, data indicate a very slight decrease in the quantity of finished products produced or handled by the respondents. Consequently, the volume of manufactured lumber handled by furniture operators was the same for both periods.

Gross Value of Forest-Related Products

The average value of forest-related products handled by related-industry respondents was derived based on the actual value reported during the relevant period covered by the study.

Lumber. Valued at the relevant time periods covered by the study, the average value of production for squared lumber during and before the moratorium was ₱497,391.00 and ₱285,267.00, respectively. On the other hand, the average value of production for manufactured lumber for the two periods amounted to ₱368,546.00 and ₱493,662.00 during and before the moratorium, respectively.

Furniture. As indicated in Table 40, the average value of furniture products slightly decreased during the period of the moratorium. Such slight decrease was basically due to the very slight reduction on the average volume of products handled by the furniture industries during the moratorium period. Moreover, the decrease in the average value of production could hardly be traced to the implementation of the logging moratorium.

Related-Industry Workers

This section of the study assesses the impact of the logging ban on the industry-related workers. It was hypothesized that if the logging ban would successfully reduce, if not stop, the logging activities in the region, then the related industries such as lumber yards and furniture shops would also reduce their lumber-related activities. Under such situations, the related industry workers would also be affected.

Socio-Demographic Characteristics

The places of origin of the logging-industry-related workers interviewed for this region-wide study is shown in Table 41. Sixty-nine percent of the respondents were from Leyte, 16 percent from Western Samar, and the other 16 percent came from the three other provinces in Region 8, namely, Southern Leyte, Eastern Samar, and Northern Samar. Majority (63%) of these respondents actually were migrants from other regions. The rest were natives of the place.

Some of the demographic characteristics of the respondents are presented in Table 42.

Ninety-four percent of the respondents were male with an average age of 31 years. The majority (54%) were married with an average of five members in the household. The average number of dependents was three.

Job Characteristics

Table 43 shows how the worker-respondents were able get their jobs. More than one-half (53%) of the respondents indicated that they applied for the job. The rest were recruited (40%) and only 7 percent were recommended by other people. Ninety-one percent of the industry-related workers indicated that they had been in the job for ten years or less. Only one percent had worked for 41 years or more.

Many of the respondents were farmers and carpenters before working in the logging-related industry as shown in Table 44. Twenty-six percent of those in the furniture industry and two percent in the lumber business said they used to be carpenters. Sixteen percent and 13 percent in the furniture and lumber industries, respectively, indicated they were formerly farmers. Another 11 percent of the respondents in the furniture industry said that their previous job was as upholsterer. Other jobs formerly held by the respondents include working as a helper/boy (6%), band saw operator (4%), fisherman (3%), slicer (2%), and driver (2%). The four major positions held by workers in the furniture industry were those of polisher (39%), carpenter (34%), carver (11%) and upholsterer (11%) as shown in Table 45. On the other hand, the major positions occupied by lumber industry workers were those of helper/utility boy (19%), laborer (16%), circular saw operator (15%), slicer (10%) and band saw operator (10%).

All the respondents in both furniture and lumber industries indicated that the skills needed to perform their jobs were mainly acquired through experience. In other words, they did not really go through formal training or studies to possess the skills required to perform their jobs. However, a number of workers mentioned other skills they possessed aside from those they performed in line with their assigned jobs. Among the skills mentioned by furniture-making workers were: carpentry (11%), fishing (8%), hired labor (5%), making drawers (3%), and working as waiter (3%). The more frequently mentioned skills possessed by the lumber industry workers were: farming or kaingin (21%), hired labor (13%), fishing (11%), driver (6%) and carpentry (5%). Other skills possessed by workers by type of industry are presented in Table 46.

The related-industry workers also received benefits and privileges as shown in Table 47. Among the benefits provided by the related industries were free board and lodging (29%), free meals (17%), free housing (8%), bonus (7%), monthly allowance (6%), SSS (6%), and medicare (7%).

Income of the Respondents

The monthly salary received by the related-industry workers, during the ban, varied considerably by type of industry. Generally, workers in the furniture industry received higher salaries than their counterparts in the lumber business. For instance, two-thirds of the workers (66%) in the furniture business received a monthly salary of ₱1,001 or higher (Table 48). In contrast only about two-fifths (44%) received a monthly salary of ₱1,001 or higher among workers in the lumber industry. The average monthly salary of the former was ₱1,307 while that of the latter was ₱1,011. The combined average monthly salary was ₱1,129.

The monthly salary of the related-industry workers, before the ban, differed between the two groups of workers with those in the furniture business receiving higher than those in the lumber yards (Table 49).

Almost one-half (45%) of furniture workers received a monthly salary of between ₱1,341 to ₱2,081 compared to only about one-fourth (24%) from those in the lumber business. More workers in the lumber business (69%) than in the furniture industry (42%) received a monthly salary of ₱601 or lower. The average monthly salary of furniture workers was ₱1,439 while that of the lumber industry workers was ₱1,059.

Fifty percent of the related-industry workers engaged in other activities to augment their income during the period of the logging ban. The more popular activities undertaken were fishing (14%), carpentry (10%), hired labor (10%) and kaingin farming (7%). Other activities resorted to were small business, firewood gathering, and lumber making. More furniture workers (71%) than lumber workers (37%) engaged in other income-generating activities (Table 50).

As shown in Table 51, the average monthly income generated from other activities by related-industry workers was ₱787. Twenty percent of the respondents indicated having an income of ₱500 or less per month; whereas, nineteen percent said they had incomes from other activities of ₱501 and above per month. Although more furniture workers were engaged in other income-generating activities, their average monthly income was only ₱687 compared to ₱949 average monthly income of lumber workers.

The average monthly earnings of furniture and lumber industry workers from both their primary and secondary sources are indicated in Table 52. As shown in the table, there is a decrease in the monthly income of worker-respondents in both industries. From an average of ₱1,746 before the ban the furniture industry workers had an average monthly income of only ₱1,175 during the ban, a decrease of ₱571 or 33 percent. On the other hand, the lumber industry workers with an average monthly income of ₱1,506 before the ban, earned a monthly income of ₱1,229 during the ban, a decrease of ₱277 or 18 percent. Thus, it can be said that those in the furniture business registered a higher percentage decrease in average monthly income from both primary and secondary sources than those in the lumber industry.

Table 53 shows the distribution of related-industry workers and their average total monthly income from both primary and secondary sources before and during the logging ban. It can be readily seen in the table that there is a considerable change in the percentage of workers belonging to a particular income bracket before and during the ban in both the furniture and lumber industries. In some income categories there was an increase in the percentage of workers involved while in others there was a decrease. For instance, among furniture workers those belonging to the income category of ₱1,000 or less decreased from 21 percent before the ban to 18 percent during the ban, or a 3 percent decrease. However, there was an increase of workers belonging to the income range of ₱2,001-₱3,000 from 11 percent before the ban to 18 percent during the ban, or an increase of 7 percent. Likewise, furniture workers belonging to the income category of ₱4,001 and above increased by 8 percent. In like manner, there were also some changes in the percentage among lumber workers, but the changes were not as big as those of the furniture workers. For those belonging to the income bracket of ₱1,000 or less, the percentage increased from 39 percent before the ban to 42 percent during the ban, an increase of 3 percent. But, there was a decrease of 5 percent each for those belonging to the ₱1,001-₱2,000 and ₱3,001-4,000 categories.

From the above data, it seems that there was both increase and decrease of percentage of workers belonging to a particular income category but as indicated in the previous table (Table 53) average monthly income generally decreased during the logging ban.

From the above information, the logging ban seemed to have no significant impact on the nature of the work done by the related-industry workers before the logging ban as compared to that during the ban.

There was, however, a noticeable change in the distribution of income before and during logging ban on the furniture industry workers. A sizable number of the low-income furniture workers experienced a reduction in income. The reduction in income, however, was attributed mostly to the decrease in the income from other sources rather than from employment in the related-industries.

Level of Living

The study also attempted to look at the possible effects of the logging moratorium on the level of living of the workers in the logging-related industries.

In terms of the type of house where the workers dwelt, no big changes occurred during and before the ban (Table 54). No changes were also observed as far as the house ownership was concerned (Table 55). As regards the home furnishings and/or appliances owned, only minor changes were noted (Table 56). As shown in the table, there was a slight percentage decrease in the lumber workers owning radio (4%), having electricity (1%), using flush toilets (5%) and having piped water (2%). No changes occurred in the ownership of furnishings among the furniture workers.

On the type of food and beverage consumed by the related-industry workers, slight changes were noted on what they took for breakfast, lunch, and supper before and during the ban. There was a slight decrease in the number of households who consumed coffee, eggs, milk, and other quality food items. On the other hand, percentage increase was noted on the consumers of dried fish, corn, vegetables, salted fish, and other cheaper food items. These changes, however, were attributed also to the changes of their income from other sources described earlier. It can not be logically attributed to the logging ban because previous data revealed that the income of the related-industry workers from their job was more or less the same before and during the logging ban.

Asked whether there was a change in the type and volume or quantity of food consumed by the household, almost one-half (47%) of the related-industry workers said that there was a change. However, about two-fifths (42%) claimed that there was no considerable change at all (Table 57).

Table 58 shows the forms of recreation engaged in by the related-industry workers before and during the imposition of the logging ban. As shown in the table, there were only slight changes in terms of percentage increase or decrease of workers engaging in a particular pastime or recreation. Among the furniture workers, family picnic was very common before the ban but during the ban this became very unpopular. Among the lumber workers, those who played basketball increased by nine percent while those who watched basketball decreased from 15 percent to zero. Those listening to radio increased by five percent. On the whole, however, the forms of recreation engaged in by the furniture and lumber workers before and during the ban did not change considerably.

On the effect of the logging ban on the schooling of the children of the related-industry workers, Table 59 shows that there was no change in the percentage of children in school before and during the ban. This was true for both furniture and lumber industry workers.

When asked whether the income they had before and during the ban was enough to meet their family needs, more than two-thirds (68%) of the furniture workers answered 'yes' (Table 60). A little less than one-third (29%) indicated that it was not enough even before and during the period of the ban. In contrast, only about one-half (56%) of the lumber workers said that their income was enough before the ban. Only about one-third (37%) indicated that their income was sufficient to meet their family's needs during the ban. Those who indicated that their income was not enough increased from 42 percent before the ban to 55 percent during the ban. Thus, it can be noted that a greater percentage of the lumber workers indicated that their income was hardly enough to meet the needs of their families.

Impact

From the data gathered from the related-industry worker-respondents, there is an indication that the moratorium on logging did not affect significantly the level of living of the concerned workers.

CHAPTER IV

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

SUMMARY

This section summarizes the major impact of the logging moratorium on the various sectors of the logging industry including the logging firms and its workers, the logging-related industries and the related-industry workers. This also includes the impact of the logging ban on forest protection using indicators such as the forest protection-related activities of the displaced workers and volume of forest products supplied by small gatherers or loggers. Emphasis is given on the impact on the displaced logging workers which is the main subject of the study.

Impact on Logging Firms

1. The moratorium on logging caused the logging firms to temporarily stop all logging operations displacing 80 percent of the workers. The remaining 20 percent formed the skeletal force to maintain day to day transaction. However, the 20 percent were not hired on full-time basis but by rotation.
2. The volume of forest products produced by the logging firms reduced from about 260,000 cubic meters to an estimated 75,000 cubic meters

in 1989. This reduced volume (75,000 cu m), however, was from existing inventory carry-over before the logging ban was implemented.

3. Various equipment of the logging companies were grounded and unutilized up to the time of the survey.

Impact on Logging Workers

It was estimated earlier that about 80 percent of the logging workers were directly displaced due to the logging ban. The remaining 20 percent who formed the skeletal force continued to be hired on a rotation or part-time basis as they were needed. As a result of this working arrangement, the logging workers in general suffered the consequences of the logging ban not only in terms of unemployment but also in terms of the following aspects:

1. Food Consumption

a. The results show that there was an apparent decrease in the quality of food eaten by the workers. There was for instance a decrease in the consumption of rice, eggs, fish, meat, and canned goods and an increase in the consumption of dried fish, rootcrops, porridge, and other low-price foods.

b. Similarly, there was also a change in their normal consumption pattern which suggested a decrease in the quantity of food consumed per unit amount. Those who used to have meat once a week, for instance, did not have anymore meat at all or had meat only once a month, during the logging ban period.

2. Schooling of Children

The logging workers stated that they could not afford anymore to send their children to school as a direct result of their being displaced from work. The study shows that there was about 15 percent decrease in the enrolment of the logging workers' children.

3. Recreation

Before the ban, the logging workers did not feel the need to find other livelihood activities to utilize their extra available time. Instead, they went into recreational activities: games, drinking with friends, and watching beta shows or movies. All these activities were still enjoyed but with less adherents during the log ban. The workers instead used their time for other livelihood activities.

4. Family Income

There was an observed decrease in the income of logging workers from major sources and a significant increase in secondary sources during the log ban. The increase in income from secondary livelihood activities, however, was not much compared to the decrease in the income from major sources. The net effect to the workers was, therefore, negative.

5. Income Distribution

Before the log ban, about 68 percent of the workers were earning from ₱2,000 to ₱4,000 per month. During the log ban, the income distribution totally changed with more people earning less than ₱1,000 per month and a reduced number of workers earning ₱2,000-₱4,000 from 68 percent to only 36 percent.

6. Migration

If the logging ban is lifted, all logging workers intend to reapply for the job they previously occupied in the company.

If not lifted, however, about 36 percent said they would have to apply for other jobs outside, and another 36 percent said they would be forced to migrate or return to their places of origin. Only about 17 percent intended to stay and do farming. The rest would either go into business or were uncertain of the next move.

Impact on Related Industries

1. In general, the logging moratorium did not have a tangible impact on the related industries in terms of volume of business activities and employment of personnel.
2. The hypothesized decrease in the raw materials for the lumber dealers and furniture shops supplied by the logging firms was actually compensated by the increase in raw materials supplied by small permit-holders and other suppliers during the logging ban.

Impact on Logging-Related-Industry Workers

1. The logging ban seems to have no significant impact on the nature of the work done by the workers during the ban as compared to that before the ban.
2. A number of low-income furniture workers experienced a reduced income during the ban. The reduce in income, however, was attributed more to the decrease in income from other sources and less from their employment in the related industry.
3. In general, the moratorium on logging did not have an impact on the livelihood of the workers in the logging-related industries and their level of living.

Impact on Forest Protection

The logging workers were more concerned with their immediate need to provide income for the family rather than think about forest protection.

Two of the major threats to forests are shifting cultivation or "kaingin" practiced by the settlers and illegal logging.

1. Shifting cultivation was observed to be very common outside the concession area perpetrated by both the forest occupants and some logging workers. Key informants, however, claimed that no changes were observed in the extent of kaingin in the area during the logging ban. Displaced logging workers sought other jobs with immediate income rather than do kaingin. Besides, the displaced logging workers claimed that the kaingin areas were too far from their places of abode.
2. Illegal logging

   There was a very strong indication that illegal logging activities had increased since the imposition of the logging ban. This was reflected in data which showed the increased volume of lumber supplied by small loggers and handsawers and from the reports of key informants.

The illegal logging, however, was mostly done by villagers with the support of financiers from persons with business interests in conjunction with lumber production.

CONCLUSION AND RECOMMENDATIONS

This report presents the extent of economic dislocation of the logging firms, related industries, logging workers and related industry workers affected by the implementation of the logging moratorium in Region 8. For the displaced logging workers, in general, the study indicated that they were economically worse off as a result of the implementation of the logging ban in the region. The shutdown of logging operations resulted in the displacement of logging workers including those temporarily retained by the logging companies as skeletal working force who suffered cuts or decrease in economic benefits. Such negative impact was observed mainly from the decrease in: a) the quantity and quality of food taken, b) schooling of children, c) recreation, d) and family income. While a sizable number of non-resident workers have already left the logging sites and others plan to go home or migrate to other places, more than 30 percent of such workers may finally opt to stay and look for other sources of livelihood in case the logging ban is imposed permanently.

Despite the expected negative effects of the moratorium on industries dependent on forest products such as the lumber and furniture industries, the study found that the moratorium did not have a significant impact on the business operations of lumber dealers and furniture shops. The study, instead, noted the significant increase in the raw materials provided by the small permit-holders as suppliers of lumber. This implies that the imposition of the moratorium may have temporarily brought about disruptions on the business operations of these forest-related business establishments, but that after some time, their operations normalized as alternative suppliers of forest products became available. Data also seem to indicate the absence of significant impact on the nature of work, income, and the level of living of related industry workers. Such a result simply reinforces the absence of any significant effect on the operations of related industries as a result of the logging ban.

Data and information from the survey also show the apathetic attitude of rural households concerning forest protection. The main concern of the logging workers and other rural households was mainly on how to survive and feed their families rather than think about forest protection. Although the "kaingin" system did not significantly increase during the period of moratorium, the absence of more attractive livelihood opportunities for rural households in the area is a compelling factor that may drive these people to cultivate the available openlands in the absence of TLA concessionaires.

Although the logging ban was issued in response to the alleged massive destruction of forest resources on Samar island which allegedly brought about the occurrences of natural catastrophes such as flooding and irregular climatic conditions, field data and information gathered strongly suggest increased illegal logging activities during the period covered by the logging ban. Such field information was reinforced by the survey data indicating an increase on the volume of lumber supplied by small permit-holders and handsawers.

Due to the increasing concern for the protection of forest resources as the only alternative to maintain ecological balance in the environment and to prevent the occurrence of irreparable environmental consequences, it is imperative for policymakers to adapt a scheme to protect our remaining forest resources based on a realistic and workable policy scheme. As a renewable resource, sustainable productivity has always been the preferred policy direction concerning the management of natural resources such as forest resources. This guiding principle of forest products renewal has not definitely been adhered to in view of the faster rate of forest product extraction compared to the rate of forest renewal. For instance, the commercial forest area in Region 8 in 1979 was 563,527 hectares; at present, it has gone down to 269,650 hectares (RDC, 1989). If such trend is allowed to continue, it is apparent that these resources will definitely be depleted in the very near future. What is needed, therefore, is a strong political will and commitment on the part of the government and a comprehensive policy agenda addressed to this problem. This brings into focus the prevailing policy options on selective or total logging ban.

No matter what policy option is adopted by our government the "real" bottomline of such public policy agenda is its effectiveness and smooth implementation, considering the existing bureaucratic impediments. The effectiveness and smooth implementation of a policy action, however, require two alternative issues for consideration. For effective implementation, public policy may either be based on a framework considering the existing realities faced by the implementing institution(s), or based on the premise that the implementing institution(s) should be revitalized or strengthened to effectively espouse the directions and goals of such policy action.

Based on the study's results, one can draw several recommendations regarding what policymakers can do to strike a balance between the effort to protect the country's forest resources, on the one hand, and the need for forest products particularly for domestic consumption including its responsibility to look into the alternative livelihood of people in the affected industries, on the other hand. First, for an effective forest protection program within the selective log ban scheme, the DENR must have a very strong and aggressive regulatory program. The continuous dwindling of our forest resources despite the mandate given to DENR is an obvious fact that the agency cannot totally enforce its mandate to those who violate the law. Under the current structure, it is quite apparent that the DENR field staff know the "real score" and the extent of forest destruction and the illegal logging activities going on in their areas of responsibility. Perhaps a number of the DENR field personnel appear lax in the enforcement of forest laws, helpless in the presence of armed men who guard the illegal activities, or tend to be more of the "bantay salakay" type.

Second, there is a need to totally enforce the sustainable production and renewal of forest resources and for mandatory protection of critical areas of the remaining virgin forests in the region as the only way to protect the environment and the ecological conditions in the region. While selective logging has long been one of the operational agenda reflected in the logging firms' operations plans submitted to the DENR, there is a need for more strict regulatory mechanism that must be satisfied by TLA holders if selective logging is adopted. This scheme calls for mandatory protection of a given area of virgin forests within each TLA site and total enforcement of selective logging based on sustainable production of the forest resources in the TLA areas. The above scheme shall be enforced whether the existing TLA holders be allowed to resume their logging operations under a new streamlined regulatory mechanism or a new set of community-based TLA-holders shall be allowed to operate by the concerned agency. It should be pointed out that under the present set-up, there is no guarantee that the remaining virgin forest resources would not be depleted through continued logging operations and illegal logging activities.

Third, if the current TLA-holders are allowed to resume their operations, most of the affected logging workers can be re-hired by the logging companies. Forest protection activities of the various TLA-holders must become vital components in our overall effort to protect the entire forest resources in the region. If and when large scale logging operations are canceled in favor of community-based logging activities, it should likewise be pointed out that a more comprehensive forest protection program should be properly drawn with collaborative participation of various line agencies and the rural village residents. Under this set-up, the DENR will have an enormous responsibility as the lead agency in community organization and other related activities. Needless to say, our past experiences on project coordination among line agencies were not so impressive. This implies that some "piloting" is still needed when it comes to community-based logging operations.

Lastly, if the ban on large scale logging operations is not lifted, the following are recommended:

1. The logging firms must be allowed to dispose of the existing stocks of manufactured lumber and cut logs immediately. These inventories are said to have been stocked before the logging moratorium order and observed to be deteriorating in quality. The same is true with the round timber awaiting processing. There is no point of holding on to these stocks for the reason of following the moratorium order. The most practical

approach to minimize losses to the logging firms and sustain payments for the salaries of the skeletal force and the uncollected back wages of the displaced workers is to allow the firms to process the logs and dispose of their stocks. The disposal of old inventory, however, must be strictly monitored by the DENR in order to minimize possible anomalies.

2. A system of incentives and conversion of assets scheme must be made for the affected logging firms to liquidate their capital investments.

3. On the part of the displaced logging workers, the study revealed that not all of the workers would continue to stay in the area but would go back to their places of origin. Only about 30 percent would remain and have planned to undertake various livelihood activities according to skills they possess. Unfortunately, the only livelihood skills of most of the workers are those related to logging operations. These skills may serve as a strong point for consideration in the study of implementing the following alternatives.

   a. The first alternative is setting up a cooperative type timber lease agreement which would be composed of all the displaced workers instead of the present corporate, commercial type of logging. The idea is to organize the displaced workers into cooperatives and grant them a timber lease agreement similar to the commercial logging firms. Definite guidelines on how to implement this program has to be drawn up by the DENR similar to their recommendation on community-based logging.

There are several advantages of this scheme over the commercial type logging. First, is its distributive effect on income which goes to the small farmers instead of the rich entrepreneurs. Second, which is built into this scheme, is the controlled logging to satisfy only the needs of the region, thus minimizing the tendency of overcutting. Third, is the cooperative effort in policing illegal cutters. The cooperatives, on the other hand, will have to be made responsible for the protection and reforestation of the areas covered by their license. These cooperatives must also be responsible for selecting the most appropriate trees to cut as covered by existing or to be enacted forest laws and regulations. In order to be representative of the community's interest, these institutions must be isolated from external influence either political or vested interest groups.

b. The second alternative that needs consideration is to make a serious study of who among these workers are in a position to be given ISF contracts especially among the 36 percent who signified to stay and farm in case the ban on logging is not lifted.

c. Another alternative is to undertake a system of reforestation of denuded areas where the displaced logging workers would be given top priority to implement. This may have to be undertaken with close supervision of the local DENR offices for close monitoring and maintenance of the reforested areas.

The first alternative needs piloting as this may overwhelm the workers. With a little help from the Management Association of the Philippines (MAP) who is actively assisting the government in the LEAD program, the concept sounds very feasible.

The second alternative is easier to implement inasmuch as there are already existing guidelines for its implementation.

Table 3. Location of logging companies included in the study

COMPANY	LOCATION
Basey Wood Industries	Basey, Western, Samar
PAVA Logging Corp. Inc.	Borongan, Eastern Samar
San Jose Timber Corp.	Wright, Eastern Samar
Great Pacific Timber & Dev't. Corp.	Marabut, Western Samar

Table 4. List of timber licensees covered by the study with their corresponding annual allowable cut and cutting area for CY 1989, Eastern Visayas Region (8)

NAME OF LICENSEE	TLA NO.	DATE ISSUED	EXPIRY DATE	TLA AREA (ha)	CUTTING AREA (ha)	ALLOWABLE CUT (cu m)
1. San Jose Timber Corporation	118-1	09-14-82	06-14-2007	93,595	2,218	75,000
2. Great Pacific Timber and Development Corporation	7	07-15-67	06-30-1992	72,669	1,613	157,988
3. Basey Wood Industries, Incorporated	14	01-27-71	06-30-1995	54,690	525	42,984
4. Pava Logging Company, Incorporated	120-1	07-24-81	12-31-2007	31,075	724	64,300
Total				252,029	5,080	310,264

Table 5. TLA area distribution, by forest classification and by logging firm

FOREST CLASSIFICATION	LOGGING COMPANY				TOTAL	PERCENT TO TOTAL
	BWII	PAVA	SJTC	GPTC		
				In Hectares		
Virgin/ Old-growth	24,166	15,307	42,812	43.885	126,170	50.06
Residual	15,199	6,324	34,941	13,314	69,778	27.69
Tree plantation	661	793	505	2,238	4,197	1.67
Brushland/Openland	4,703	211	1,960	3,862a/	10,736	4.26
Cultivated	3,026	289	2,701	a/	6,016	2.39
Wilderness area	2,735	2,172	4,747	4,227	13,881	5.51
Mossy/Rocky	4,200	4,989	5,714	5,143	20,046	7.95
Alienable & disposable	0	990	0	0	990	0.39
A N R Area	0	0	215	0	215	0.09
TOTAL	54,690	31,075	93,595	72,669	252,029	100.00

a/ Includes cultivated area.

Table 6. Areas covered by timber license agreement

AREA COVERED	PROVINCE		
	Northern Samar	Western Samar	Eastern Samar
Las Navas	x		
Can-avid			x
Dolores			x
Jipapad			x
Maslog			x
Matuguinao		x	
San Jose de Buan		x	
Wright		x	
Basey		x	
Calbiga		x	
Sta. Rita		x	
Borongan			x
Maydolong			x
Marabut		x	
Lawaan			x
Balangiga			x
Giporlos			x
Gen. MCarthur			x
Llorente			x
Hinabangan		x	

Table 7. Nature of work implementation for "skeletal" work force during logging moratorium, by logging firm

WORK IMPLEMENTATION	BWII	PAVA	SJTC	GPTEC
Emergency basis	x			
No overtime and no Saturday work		x		
No work, no pay			x	
Rotation				x

Table 8. Type and volume of forest products produced, by firm

YEAR/PRODUCT	BWII	PAVA	SJTC	GPTDC	ALL
			In cubic meters		
A. 1988					
Round timber	86,701.0	13,301.8	24,678.0	84,396.2	209,077.0
Mnftrd lumber	0.0	23,252.6	0.0	0.0	23,253.0
Sqrd lumber	28,625.0	0.0	0.0	0.0	28,625.0
Total	115,326.0	36,554.4	24,678.0	84,396.2	260,954.6
B. 1989					
Round timber	15,000.0	4,605.2	18,352.9	25,927.0	63,885.1
Mnftrd lumber	0.0	10,054.2	0.0	0.0	10,054.2
Sqrd lumber	1,000.0	0.0	0.0	0.0	1,000.0
Total	16,000.0	14,659.4	18.352.9	25,927.0	74,939.3

Table 9. Distribution of equipment used for logging operations, by logging firm

EQUIPMENT	BWII	PAVA	SJTC	GPTDC	TOTAL
1. Heavy equipment:					
Yarder	10	0	5	9	24
Tractor	6	6	16	18	46
Log hauler/loader	4	0	0	14	18
Crane	0	2	5	2	9
Grader	3	1	2	2	8
Skidder	0	2	0	2	4
Payloader	2	7	6	0	15
Rock drill	1	0	0	0	1
Air compressor/ truck drill	0	0	2	2	4
Fuel delivery truck	0	0	1	0	1
Barge	2	0	0	0	2
Tug boat/sea craft	4	0	4	2	10
Sampan	1	0	0	0	1
Tanker truck	1	4	0	0	5
Fire truck	0	1	0	0	1
Power house	2	0	0	0	2
Total	36	23	41	51	152

Table 9. Continued.

EQUIPMENT	BWII	PAVA	SJTC	GPTDC	TOTAL
2. Light Equipment:					
Automobile	1	0	3	0	4
Jeepney	0	3	1	6	10
Pick-up	0	0	0	2	2
Ford fierra	1	0	1	0	2
Motorcycle	0	0	0	2	2
Bus	0	0	0	5	5
Wagon carrier	0	0	0	1	1
Hauling/loading truck	3	40	10	0	53
Service truck	0	2	0	0	2
Dumping truck	4	12	6	12	34
Crew set	0	0	0	3	3
Forklift	0	4	0	0	4
Welding machine	0	0	0	6	6
Lathe machine	0	0	0	3	3
Generating set	0	3	0	0	3
Power saw	23	0	0	0	23
Saw mill	2	0	0	0	2
Table saw	0	1	0	0	1
Bandsaw	0	1	0	0	1
Resaw	0	1	0	0	1
Total	34	67	21	40	162

Table 10. Community relations activities of logging firms

SERVICE	BWII	PAVA	SJTC	GPTDC
Grant scholarships to workers' children	x			x
Donate wood/logs to the brgy & municipality		x	x	x
Construct, repair & maintain roads & bridges		x		x
Free medical & dental consultation to brgy residents		x	x	x

Table 10. Continued.

SERVICE	BWII	PAVA	SJTC	GPTDC
Donate water system equipment to the brgy				x
Employment of brgy/ community residents	x	x	x	x
Provide boat service for emergency cases				x
Donate cash to the brgy & municipality			x	
Provide free transportation		x		
Provide planting materials to brgy & gov't. offices	x	x	x	

Table 11. Social forestry programs, by logging firm

PROGRAM	BWII	PAVA	SJTC	GPTDC
Agro-forestry	x			x
Reforestation	x			x
ISF	x		x	
Seedling distribution	x	x	x	x
Fruit trees planting	x			
Forest occupants' census		x		
Information drive/ individual contact		x		
Brgy assembly coordination		x		
Assist with DENR activities		x		

Table 12. Nature of forest protection activities, by logging firm

ACTIVITY	BWII	PAVA	SJTC	GPTDC
Control of kaingineros		x		x
Control of illegal cutters		x	x	x
Forest protection campaign			x	
Foot patrolling		x	x	
Installation of warning signs		x	x	

Table 13. Distribution of logging worker-respondents, by firm

FIRM	NO.	PERCENT
BWII	26	18
PAVA	35	25
SJTC	46	32
GPTDC	35	25
Total	142	100

Table 14. Selected demographic characteristics of logging worker-respondents, by firm

VARIABLE	BWII (n=26)	PAVA (n=35)	SJTC (n=46)	GPTDC (n=35)	TOTAL (N=142)
			In percent		
Age (years):					
25 and less	15	31	6	9	15
26-50	65	54	80	83	72
51 and above	19	14	13	9	13
Total	100	100	100	100	100
Mean (years)	39	35	39	37	38
Sex:					
Male	100	89	91	97	94
Female	0	11	9	3	6
Total	100	100	100	100	100
Status:					
Single	15	20	9	9	13
Married	85	80	91	91	87
Total	100	100	100	100	100
Household members:					
1-4	15	34	33	29	29
5-8	58	54	59	49	55
9-12	19	9	9	20	13
No response	8	3	0	3	3
Total	100	100	100	100	100
Mean (years)	6	5	6	6	6

Table 14. Continued.

VARIABLE	BWII (n=26)	PAVA (n=35)	SJTC (n=46)	GPTDC (n=35)	TOTAL (N=142)
			In percent		
No. of dependents:					
1-4	54	63	56	49	55
5-8	35	26	35	40	34
9-12	4	0	6	9	5
No response	8	11	2	3	5
Total	100	100	100	100	100
Mean	5	3	5	5	4

Table 15. Employment benefits provided by the logging companies

BENEFIT	BWII (n=26)	PAVA (n=35)	SJTC (n=46)	GPTDC (n=35)	ALL (N=142)
			In percent		
SSS	100	97	96	100	98
Medicare	100	100	93	100	98
Free housing	100	89	74	83	84
Vacation leave	100	74	59	91	78
Sick leave	100	74	46	91	74
Insurance	0	0	96	94	54
Free electricity	85	11	35	77	49
Bonus	85	23	2	97	46
T-shirts and toys	58	0	2	71	29
Rice subsidy	0	0	74	0	24
13th month pay	0	20	13	0	9
Free meal	0	0	2	0	1

Table 16. Distribution of logging worker-respondents by job classification

CLASSIFICATION	NO. REPORTED	PERCENT
A. Workshop/Engineering	47	33.1
B. Logging/Wood	43	30.3
C. Forestry/Reforestation	15	10.6
D. Administrative	13	9.2
E. Log Pond/Transport	11	7.8
F. Security	6	4.2
G. Utility/Other services	7	4.9
H. Sawmilling	1	.7
Total	142	100.0

Table 17. Other jobs engaged in by logging worker-respondents, by logging firm

OTHER JOB	BWII (n=26)	PAVA (n=35)	SJTC (n=46)	GPTDC (n=35)	ALL (N=142)
			In percent		
None	92	86	83	60	80
Small business	8	3	9	6	6
Fishing	0	6	2	17	5
Carpentry	0	6	0	6	3
Others*	0	6	6	12	6

* Others include 1% observation each for painting, firewood gathering, farming, teaching, hired labor, and kaingin.

Table 18. Problems encountered by the logging worker-respondents in their job/livelihood activities during logging ban

PROBLEM	Working in firm (n=52)	Farming/ fishing (n=11)	Small business (n=4	Hired labor (n=3)	Total (N=70)
			In percent		
Low salary	35	0	25	67	30
No overtime pay	15	0	0	0	11
Delayed salary	14	0	0	0	10
No/lack of capital	2	36	50	0	10
Job not permanent	10	0	0	0	7
No more benefits	8	0	0	0	6
Contract would terminate	6	0	0	0	5
Food shortage	6	0	0	0	5
Long wait till harvest time	0	27	0	0	5
Less production	0	18	25	0	5
Others*	6	18	0	0	5
None	0	0	0	33	1

* Others include 1 % observation each for absence of appointment, attitude of employee, management of company, high cost of fertilizer, and climate.

Table 19. Major means of livelihood of logging workers' wives, by logging firm

LIVELIHOOD	BWII (n=26)	PAVA (n=35)	SJTC (n=46)	GPTDC (n=35)	ALL (N=142)
			In percent		
Gardening/farming	4	0	11	6	5
Business	0	9	4	3	4
Mat weaving	8	0	0	3	2
Dress making	4	3	0	0	2
Others*	0	6	6	3	6
None	85	83	76	85	82

* Others include 1 % observation each for security guard, clerk-typist, nurse, government employee, teacher, manicurist.

Table 20. Type of food and beverages consumed by BWII logging worker-respondents before and during logging ban

FOOD/FIRM	BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent	
1. BWII (n=26)			
1.1. Breakfast			
Rice	100	80	(20)
Fish	77	19	(58)
Meat	31	19	(12)
Eggs	46	0	(46)
Bread	12	4	(8)
Canned goods	12	0	(12)
Salted fish	4	31	27
Vegetables	12	12	0
Coffee	35	19	(16)
Milk	15	0	(15)
Milo	8	0	(8)
Dried fish	15	31	16
Porridge	0	19	19
Rootcrops	0	19	19
Salt	0	4	4
Sugar	0	4	4
1.2. Lunch			
Rice	100	92	(8)
Fish	54	38	(16)
Meat	88	8	(80)
Canned goods	12	4	(8)
Chicken	8	0	(8)
Salted fish	0	8	8
Vegetables	69	73	4
Dried fish	0	35	35
Rootcrops	0	4	4
1.3. Supper			
Rice	100	92	(8)
Fish	42	19	(23)
Meat	65	23	(42)
Canned goods	15	0	(15)
Chicken	12	0	(12)
Salted fish	4	27	23
Vegetables	69	65	(4)
Dried fish	12	38	26
Rootcrops	0	4	4

Table 21. Type of food and beverages consumed by PAVA logging worker-respondents before and during logging ban

FOOD/FIRM	BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent	
2. PAVA (n=35)			
2.1. Breakfast			
Rice	100	91	(9)
Fish	89	66	(23)
Meat	51	14	(37)
Eggs	34	11	(23)
Bread	7	14	5
Canned goods	3	0	(3)
Salted fish	3	14	11
Vegetables	6	6	0
Coffee	6	9	3
Milk	6	0	(6)
Milo	3	0	(3)
Dried fish	17	29	12
Rootcrops	0	6	6
Rice with corn	0	3	3
2.2. Lunch			
Rice	100	97	(3)
Fish	54	51	(3)
Meat	66	37	(29)
Eggs	3	0	(3)
Canned goods	6	0	(6)
Salted fish	0	3	3
Vegetables	86	86	0
Dried fish	0	6	6
Rootcrops	0	6	6
Sardines	3	0	(3)
Soft drinks	3	0	(3)
2.3. Supper			
Rice	100	100	0
Fish	86	66	(20)
Meat	43	26	(17)
Canned goods	3	3	0
Salted fish	0	14	14
Vegetables	77	60	(17)
Dried fish	9	9	0
Rootcrops	0	3	3

Table 22. Type of food and beverages consumed by SJTC logging worker-respondents before and during logging ban

FOOD/FIRM		BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent		
3.	SJTC (n=46)			
3.1.	Breakfast			
	Rice	93	69	(24)
	Fish	34	9	(25)
	Meat	11	0	(11)
	Eggs	59	2	(57)
	Bread	2	4	2
	Salted fish	7	15	8
	Vegetables	4	7	3
	Coffee	41	11	(30)
	Milk	41	0	(41)
	Dried fish	33	48	15
	Porridge	0	5	15
	Rootcrops	0	1	11
	Salt	0	11	11
	Hotdog	2	0	(2)
	Chocolate	4	0	(4)
	Ham	2	0	(2)
	Bacon	2	0	(2)
	Tuna	2	0	(2)
	Corn coffee	0	7	7
	Tahong	0	4	4
	Small crabs	0	4	4
	Champorado	0	2	2
3.2.	Lunch			
	Rice	100	82	(18)
	Fish	69	20	(49)
	Meat	54	2	(52)
	Canned goods	2	0	(2)
	Salted fish	0	13	13
	Vegetables	35	61	26
	Dried fish	0	7	7
	Rootcrops	0	7	7

Table 22. Continued.

FOOD/FIRM		BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent		
	Soft drinks	4	0	(4)
	Shrimps	2	0	(2)
	Sea shells	0	2	2
	Rice with corn	0	2	2
3.3.	Supper			
	Rice	100	82	(18)
	Fish	59	15	(44)
	Meat	35	0	(35)
	Canned goods	4	0	(4)
	Chicken	2	0	(2)
	Salted fish	0	7	7
	Vegetables	48	54	6
	Dried fish	0	7	7
	Rootcrops	0	7	7
	Tahong	2	0	(2)
	Shrimps	4	0	(4)
	Sea foods	0	11	11
	Shells	0	2	2
	Porridge	0	2	2

Table 23. Type of food and beverages consumed by GPTDC logging worker-respondents before and during ban

FOOD/FIRM		BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent		
4.	GPTDC (n=35)			
4.1.	Breakfast			
	Rice	100	51	(49)
	Fish	80	11	(69)
	Meat	26	3	(23)
	Eggs	49	0	(49)
	Bread	14	11	(3)
	Canned goods	9	0	(9)
	Salted fish	0	20	20

Table 23. Continued.

FOOD/FIRM		BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent		
	Vegetables	3	0	(3)
	Coffee	60	20	(40)
	Milk	34	0	(34)
	Milo	6	0	(6)
	Dried fish	34	37	3
	Porridge	0	11	11
	Rootcrops	0	37	37
	Rice with corn	0	6	6
	Salabat	0	3	3
4.2.	Lunch			
	Rice	100	86	(14)
	Fish	66	43	(23)
	Meat	91	9	(82)
	Canned goods	26	0	(26)
	Chicken	11	0	(11)
	Salted fish	0	26	26
	Vegetables	69	51	(18)
	Dried fish	0	23	23
	Rootcrops	0	9	9
	Shells	0	3	3
	Rice with corn	0	3	3
4.3.	Supper			
	Rice	100	94	(6)
	Fish	51	34	(17)
	Meat	37	14	(23)
	Canned goods	23	0	(23)
	Salted fish	0	26	26
	Vegetables	80	74	(6)
	Dried fish	23	26	3
	Eggs	3	0	(3)
	Fruits	3	0	(3)
	Rice with corn	0	3	3

Table 24. Observed changes on the type of food eaten by logging worker-respondents, by firm

ITEM	BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent	
BWII (n=26)			
Meat 1x/wk	27	0	(27)
Meat 2x/wk	8	0	(8)
Meat 3x/wk	8	0	(8)
Regular Meal	8	0	(8)
Salted fish always	0	46	46
Vegetables always	0	23	23
No meat anymore	0	27	27
Root crop for meals	0	15	15
Meat 1x/mo	0	15	15
Irregular meal	0	8	8
PAVA (n=35)			
Meat 1x/wk	6	0	(6)
Meat 2x/wk	11	0	(11)
Meat 3x/wk	6	0	(6)
Salted fish always	0	43	43
Vegetables always	0	31	31
No meat anymore	0	6	6
Root crop for meals	0	3	3
Meat 1x/mo	0	17	17
Food volume affected	0	37	37
SJTC (n=46)			
Meat 1x/wk	33	0	(33)
Meat 2x/wk	4	0	(4)
Meat 3x/wk	2	0	(2)
Regular Meal	2	0	(2)
Salted fish always	0	65	65
Vegetables always	0	65	65
No meat anymore	0	33	33
Root crop for meals	0	11	11
Meat 1x/mo	0	6	6
Food volume affected	0	9	9
Porridge for meals	0	6	6
Irregular meal	0	2	2
Rice alone	0	2	2

Table 24. Continued.

ITEM	BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent	
GPTDC (n=35)			
Meat 1x/wk	29	0	(29)
Meat 2x/wk	11	0	(11)
Meat 3x/wk	9	0	(9)
Regular Meal	3	0	(3)
Coffee served	3	3	0
Salted fish always	0	74	74
Vegetables always	0	37	37
No meat anymore	0	29	29
Root crop for meals	0	31	31
Meat 1x/mo	0	20	20
Porridge for meals	0	11	11
Irregular meal	0	3	3

Table 25. Reasons of logging workers for not sending children to school during the ban

REASON	BWII (n=11)	PAVA (n=11)	SJTC (n=16)	GPTDC (n=11)	TOTAL (N=49)
			In percent		
No permanent job	45	9	12	63	30
Still single	36	54	6	9	24
Underage children	0	36	81	18	39
All children married	9	0	0	0	2
All children graduated	9	0	0	9	4
Total	100	100	100	100	100

Table 26. Coping mechanisms employed by the logging worker-respondents in meeting budgetary needs during ban

MECHANISM	BWII (n=26)	PAVA (n=35)	SJTC (n=46)	GPTDC (n=35)	TOTAL (N=142)
			In percent		
Tight budgeting	50	51	76	51	62
Farming	27	6	15	23	20
Emergency work	4	6	6	9	7
Fishing	4	0	0	6	3
Business	0	0	0	9	2
No response	0	37	2	0	1
Others*	16	0	0	3	5
Total	100	100	100	100	100

* Include 1% each for raising animals, making puto, mat weaving, rattan gathering, and repair of equipment.

Table 27. Recreational activities engaged in by logging worker-respondents, before and during ban

ITEM	BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent	
BWII (n=26)			
Drinking beer/tuba	65	58	(7)
Playing basketball	27	15	(12)
Watching beta shows	4	0	(4)
Watching movie	4	0	(4)
Watching TV	8	0	(8)
Playing tennis	4	0	(4)
Playing scrabble	0	4	4

Table 27. Continued.

ITEM	BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In percent	
PAVA (n=35)			
Drinking beer/tuba	17	9	(8)
Playing basketball	31	23	(8)
Watching beta shows	11	9	(2)
Watching movie	3	9	6
Cockpit	14	3	(11)
Disco	17	3	(14)
Picnic	3	0	(3)
Reading comics/ magazine	6	3	(3)
Playing volleyball	9	14	5
Playing tennis	3	0	(3)
Playing guitar	6	0	(6)
Singing	9	0	(9)
Billiard playing	3	0	(3)
SJTC (n=46)			
Drinking beer/tuba	6	0	(6)
Playing basketball	30	24	(6)
Watching beta shows	26	13	(13)
Watching movie	15	2	(13)
Cockpit	4	2	(2)
Playing chess	11	9	(2)
Disco	2	0	(2)
Watching TV	2	0	(2)
Picnic	6	0	(6)
Playing tennis	2	0	(2)
Playing cards	2	0	(2)
Playing scrabble	0	2	2
Bible reading	0	2	2
GPTDC (n=35)			
Drinking beer/tuba	69	46	(23)
Watching beta shows	23	3	(20)
Watching movie	6	0	(6)
Cockpit	14	17	3
Watching TV	6	0	(6)
Picnic	14	6	(8)
Reading Bible	0	3	3

Table 28. Average monthly income of logging worker-respondents from primary and secondary sources before and during logging ban

FIRM/SOURCE	BEFORE BAN	DURING BAN	INCREASE (DECREASE)
		In pesos	
CWII (n=26)			
Employment/ major livelihood	2562	1213	(1349)
Other source	49	58	9
Total	2611	1270	(1341)
PAVA (n=35)			
Employment/ major livelihood	2388	1714	(674)
Other source	86	159	(73)
Total	2474	1874	(600)
SJTC (n=46)			
Employment/ major livelihood	3087	2462	(625)
Other source	472	254	(218)
Total	3559	2716	(843)
GPTDC (n=35)			
Employment/ major livelihood	2884	790	(2094)
Other source	61	169	108
Total	2945	959	(1986)

Table 29. Distribution of forest-related industry owner-respondents by location and type of industry

LOCATION	FURNITURE (n=18)	LUMBER (n=36)	ALL (N=54)
		In percent	
Leyte	72	47	56
W. Samar	28	14	18
So. Leyte	0	8	6
E. Samar	0	8	6
N. Samar	0	22	15
Total	100	100	100

Table 30. Distribution of related industry owner-respondents by nature of organization and type of industry

NATURE OF ORGANIZATION	FURNITURE (n=18)	LUMBER (n=36)	ALL (N=54)
		In percent	
Sole proprietorship	89	97	94
Corporation	11	3	6
Total	100	100	100

Table 31. Distribution of related industry owner-respondents as to nature of other enterprise engaged in

ENTERPRISE	FURNITURE (n=18)	LUMBER (n=36)	ALL (N=54)
		In percent	
None	61	28	39
Sari-sari store	11	14	13
Construction		14	9
Gravel and sand		8	6
Hardware		6	4
Bakery		6	4
Hollow block making		6	4
Carve woods products	6		2
Brick making	6		2
Lumber dealer	6		2
Charcoal business	6		2
Lodging house	6		2
Electrical supply		3	2
Rice milling		3	2
Wood craft		3	2
Metal craft		3	2
Copra dealer		3	2
Junk shop		3	2
Buy and sell		3	2
Total	100	100	100

Table 32. Distribution of related industry operators according to number of years in the business

YEAR	TYPE OF FIRM		ALL (N=54)
	Furniture (n=18)	Lumber (n=36)	
		In percent	
1 - 4	17	61	46
5 - 8	22	20	20
9 - 12	33	8	17
13 - 16	17	3	7
Above 16	11	8	9
Total	100	100	100
Mean (Years)	10	6	7

Table 33. General information concerning the entrepreneurial activities of related industry respondents

ITEM	FURNITURE (n=18)	LUMBER (n=36)	ALL (N=54)
		In percent	
A. Skills adequate?			
Yes	39	72	61
No response	61	28	39
Total	100	100	100
B. Need for skills training?			
Yes	11	17	15
No	0	11	7
No response	89	72	78
Total	100	100	100
C. Plans for expansion?			
Yes	28	53	44
No	11	14	13
No response	61	33	43
Total	100	100	100
B. Constraints for expansion?			
Lack of skills	0	16	12
Lack of capital	100	79	83
Economic/Political	0	10	8
No response	(5)	(19)	(25)

Table 34. Types of forest products handled by related industries

ITEM	FURNITURE (n=18)	LUMBER (n=36)	ALL (n=54)
		In percent	
Squared lumber	0	11	8
Manufactured lumber	3	89	60
Furniture	94	0	31
Upholstery	3	0	1
Total	100	100	100

Table 35. Average number and average monthly salary/wage of lumber workers employed by lumber establishment owner-respondents

TYPE OF JOB	DURING BAN		BEFORE BAN		INCREASE/(DECREASE)	
	No. of employ-ees	Monthly salary (₱)	No. of employ-ees	Monthly salary (₱)	No. of employ-ees	Monthly salary (₱)
Cutter	8	1328	8	1328	0	0
Planer	2	1855	2	1855	0	0
Band saw operator	7	1850	6	1846	1	4
Scaler	3	1013	3	1013	0	0
Filer	7	987	6	1053	1	(66)
Slicer	2	850	2	970	0	(120)
Driver	1	1650	1	1650	0	0
Circular saw operator	3	1270	4	1421	(1)	(151)
Helper/ Utility	11	849	12	854	(1)	(5)
Laborer	10	837	12	756	(2)	81
Salesman	2	700	2	700	0	0
Resawer	2	1020	2	1020	0	0
Clerk	1	1000	1	1000	0	0
Forklift operator	1	3150	1	3150	0	0
Band saw operator	1	500			1	500
Security	1	1000			1	1000
Total	160		165		(5)	
Mean	5	1136	5	1144	0	0

Table 36. Average number and average monthly salary/wage of furniture workers employed by furniture establishment owner-respondents

TYPE OF JOB	DURING BAN		BEFORE BAN		INCREASE/(DECREASE)	
	No. of employ- ees	Monthly salary (₱)	No. of employ- ees	Monthly salary (₱)	No. of employ- ees	Monthly salary (₱)
Finisher/ Polisher	14	1088	16	1056	(2)	32
Carpenter	13	1436	15	1456	(2)	(20)
Upholsterer	2	1450	3	1407	(1)	43
Carver	4	1180	6	1703	(2)	(523)
Designer	4	1575	4	1600	0	(25)
Scaler	1	1000	1	1000	0	0
Helper/ Utility	1	1125	1	1125	0	0
Sewer	1	1800	1	1800	0	0
Assembler	1	2500	1	2500	0	0
Total	90		111		(11)	
Mean	6	1323	6	1375	0	(52)

Table 37. Distribution of origin of raw materials utilized by related industries

ORIGIN	DURING BAN	BEFORE BAN	INCREASE (DECREASE)
		In percent	
Lumber (n=36)			
Within region 8 1/	69	76	(7)
Outside region 8 1/	5	4	1
Small-scale permit holders	26	20	6
Lumber dealers	0	0	0
Total	100	100	
Furniture (n=18)			
Within region 8 1/	36	48	(12)
Outside region 8 1/	17	6	10
Small-scale permit holders	36	35	1
Lumber dealers	11	11	0
Total	100	100	

1/ From logging firms

Table 38. Types of raw material utilized by related industries

TYPE OF RAW MATERIAL	DURING BAN	BEFORE BAN	INCREASE (DECREASE)
	In percent		
Lumber (n=36)			
Squared lumber	14	13	1
Manufactured lumber	86	87	(1)
Furniture (n=18)			
Hardwood	64	67	(3)
Softwood	36	33	3

Table 39. Average annual production of related industries, by type of industry

ITEM	UNIT	ANNUAL PRODUCTION		INCREASE (DECREASE)
		During ban	Before ban	
Lumber (n=36)				
Squared lumber	bd ft	80,373	57,000	23,373
Manufactured lumber	bd ft	68,886	90,873	(21,987)
Furniture (n=18)				
Manufactured lumber	bd ft	25,000	25,000	0
Upholstery	set	35	30	5
Sala set	set	17	20	(3)
Dining set	set	11	12	(1)
Corner set	set	1	12	(11)
Cabinet	set	15	18	(3)
Office table	pc	6	8	(2)
Bed	pc	2	4	(2)
Door	pc	2	2	0
Divider	pc	2	3	(1)
Betamax stand	pc	6	5	1
Repair job material	pc	4	3	1

Table 40. Gross value of production of related industries, by type of industry

ITEM	GROSS VALUE OF PRODUCTION		INCREASE (DECREASE)
	During ban	Before ban	
		In pesos	
Lumber (n=36)			
Squared lumber	497,391	285,267	212,124
Manufactured lumber	368,546	493,682	(125,136)
Furniture (n=18)			
Manufactured lumber	125,000	125,000	0
Upholstery	161,000	135,000	26,000
Sala set	44,378	49,572	(5,194)
Dining set	43,032	40,503	2,529
Corner set	38,000	42,000	(4,000)
Cabinet	28,865	30,044	(1,179)
Office table	20,000	22,000	(2,000)
Bed	5,050	6,350	(1,300)
Door	0	7,000	(7,000)
Divider	7,000	7,250	(250)
Betamax stand	6,000	5,000	1,000
Repair job material	2,000	1,500	500

Table 41. Places of origin of logging-related industry workers, by type of industry

PLACE	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Leyte	84	60	69
W. Samar	16	16	16
So. Leyte	0	13	8
E. Samar	0	8	0
N. Samar	0	3	0
Total	100	100	100

Table 42. Selected demographic characteristics of related industry respondents, by type of industry

VARIABLE	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (n=100)
		In percent	
Age			
18 and below	0	6	4
18 - 29	53	52	52
30 - 41	29	21	24
42 - 53	5	16	12
54 and above	3	3	7
No response	10	2	3
Total	100	100	100
Mean	33	30	31
Sex			
Male	97	92	94
Female	3	8	6
Total	100	100	100
Marital Status			
Married	55	53	54
Single	45	45	45
Widow/er	0	2	1
Total	100	100	100
Household members			
3 and below	11	34	25
4-6	60	31	42
10-12	21	32	28
13-15	3	0	1
16 and above	0	2	1
No response	5	2	3
Total	100	100	100
Mean	6	5	5

Table 42. Continued.

VARIABLE	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (n=100)
		In percent	
No. of dependents			
1-3	50	45	47
4-6	26	23	24
10-12	5	3	4
No response	18	29	25
Total	100	100	100
Mean	4	3	3

Table 43. Manner of landing job and length of service of related industry worker-respondents, by type of industry

CATEGORY	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Manner of landing job			
Applied	55	5	53
Recruited/hired	42	39	40
Recommended	3	10	7
Total	100	100	100
Length of service			
10 yrs and less	82	97	91
11-20 yrs	10	3	6
21-30 yrs	5	0	2
41 yrs and above	3	0	1
Total	100	100	100

Table 44. Type of job of related industry worker-respondents before joining the industry, by type of industry

JOB TYPE	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Carpenter	26	2	11
Farming	16	13	14
Upholsterer	11	0	4
Helper/boy	8	5	6
Band saw operator	5	3	4
Fishing	3	5	4
Utility man	3	0	1
Designer	3	0	1
Abaca tuxying	3	0	1
Carver	3	2	1
House painter	3	0	1
Laborer	0	13	8
Slicer	0	3	2
Driver	0	3	2
Air condition technician	0	2	1
Waiter/dishwasher	0	2	1
Fireman	0	2	1
CHDF	0	2	1
Time keeper	0	2	1
Construction worker	0	2	1
Baker	0	2	1
Rattan dealer	0	2	1
No response	18	39	31
Total	100	100	100

Table 45. Distribution of related industry worker-respondents as to their position in the industry, by type of industry

POSITION	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Polisher	39	0	15
Carpenter	34	3	15
Carver	11	0	4
Upholsterer	11	0	4
Designer	5	0	2
Planer	3	0	1
Helper/utility boy	0	19	12
Laborer	0	16	10
Circular saw operator	0	15	9
Slicer	0	10	6
Band saw operator	0	10	6
Cutter	0	8	5
Wood piler	0	5	3
Dispatcher	0	5	3
Security guard	0	3	2
Planer	0	3	2
Driver	0	3	2
Clerk	0	2	1
Receiver	0	2	1
Checker	0	2	1
Resawer	0	2	1
Forklift operator	0	2	1

Table 46. Other skills possessed by related industry worker-respondents, by type of industry

OTHER SKILL	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Carpentry	11	5	7
Fishing	8	11	10
Hired labor	5	0	2
Drawer making	3	0	1
Waiter	3	0	1
Upholsterer	3	0	1
Electronics	3	0	1
Painter	3	2	2
Mason	3	2	2
Designer	3	0	1
Farming/kaingin	0	21	13
Hired labor	0	13	8
Driver	0	6	4
Others*	0	16	8

* Include 2% each in the lumber industry for wood scaling, fence gathering, singing, clerical skills, mechanic, baker, saw operator.

Table 47. Benefits for worker-respondents provided by the industry, by type of industry

BENEFIT	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Free board & lodging	21	34	29
Free meals	16	18	17
Free housing	11	6	8
Bonus	5	8	7
Monthly allowance	8	5	6
SSS	5	6	6
Insurance	3	6	5
Free lighting	3	0	1
Free snacks	0	2	1
Medicare	0	11	7
No response	29	3	13
Total	100	100	100

Table 48. Monthly salary from major livelihood, during the ban, of related industry worker-respondents, by type of industry

SALARY	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
In pesos/mo.		In percent	
500 and less	16	16	16
501-1000	18	37	30
1001-1500	45	31	36
1501-2000	16	10	12
2001 and above	5	3	4
No response	0	3	2
Total	100	100	100
Mean	1,307	1,011	1,129

Table 49. Monthly salary from major livelihood, before the ban, of related industry worker-respondents, by type of industry

SALARY	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
In pesos/mo.		In percent	
600 and less	8	26	19
601-1340	34	43	40
1341-2081	45	24	32
2082-2822	5	3	4
2823 and above	5	0	2
No response	3	3	3
Total	100	100	100
Mean	1439	1059	1204

Table 50. Other livelihood activities engaged in during the ban by related industry worker-respondents, by type of industry

LIVELIHOOD ACTIVITY	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Carpentry	18	5	10
Hired labor	16	5	10
Fishing	13	15	14
Business	13	2	6
Kaingin	8	6	7
Firewood gathering	0	3	2
Lumber making	0	2	1
No response	29	63	50
Total	100	100	100

Table 51. Monthly income from other livelihood activities, during the ban, by related industry worker-respondents, by type of industry

INCOME	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
In pesos		In percent	
500 and less	37	10	20
501-1500	24	10	15
1501-2500	3	3	3
2501 and above	0	2	1
No response	37	76	61
Total	100	100	100
Mean (₱)	687	949	787

Table 52. Average monthly income of related industry worker-respondents from primary and secondary sources, by type of industry

INDUSTRY/ SOURCE	BEFORE BAN	DURING BAN	INCREASE (DECREASE)	% INC./(DEC.)
		In pesos		
A. Furniture (n=38)				
Employment/ major livelihood	1,401	1,341	(60)	
Other source	346	434	88	
Total	1,746	1,175	(571)	(32.70)
B. Lumber (n=62)				
Employment/ major livelihood	1,025	999	(26)	
Other source	481	230	(251)	
Total	1,506	1,229	(277)	(18.39)

Table 53. Distribution of related industry worker-respondents and their average monthly income from primary and secondary sources before and during the ban, by type of industry

INCOME (Pesos)	BEFORE BAN Furniture (n=38)	BEFORE BAN Lumber (n=62)	DURING BAN Furniture (n=38)	DURING BAN Lumber (n=62)	(DECREASE) Furniture (n=38)	(DECREASE) Lumber (n=62)
			In percent			
1000 and less	21	39	18	42	(3)	3
1001-2000	55	45	29	40	(26)	(5)
2001-3000	11	8	18	8	7	0
3001-4000	8	7	0	2	(8)	(5)
4001 and above	5	2	13	2	8	0
No response	0	0	21	7	21	7
Total	100	100	100	100		

Table 54. Type of house owned by related industry workers, by firm

TYPE	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Before ban			
Temporary	74	87	82
Semi- permanent	18	10	13
Permanent	5	3	4
No response	3	0	1
Total	100	100	100
During ban			
Temporary	74	87	82
Semi- permanent	16	10	12
Permanent	5	3	4
No response	5	0	2
Total	100	100	100

Table 55. House ownership of related industry worker-respondents, by firm

OWNERSHIP	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Before ban			
Owned	50	69	62
Provided	26	26	26
Rented	24	5	12
Total	100	100	100
During ban			
Owned	50	69	62
Provided	26	27	27
Rented	24	3	11
Total	100	100	100

Table 56. Furnishings owned by related industry worker-respondents, by type of industry

ITEM	BEFORE BAN Furniture	BEFORE BAN Lumber	DURING BAN Furniture	DURING BAN Lumber	INCREASE/(DECREASE) Furniture	INCREASE/(DECREASE) Lumber
			In percent			
Radio	76	85	76	81	0	(4)
Flush toilet	42	52	42	47	0	(5)
Piped water	29	42	29	40	0	(2)
Electric lighting	45	45	45	44	0	(1)
TV	16	10	16	10	0	0
Refrigerator	5	3	5	3	0	0
Cassette-radio	5	0	5	0	0	0
Cabinet	13	0	13	0	0	0

Table 57. Workers responses as to change in the type and volume of food eaten during logging ban, by type of industry

RESPONSE	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Yes	50	54	47
No	47	46	42
No response	3	16	11
Total	100	100	100

Table 58. Forms of recreation of the related industry worker respondents, by type of industry

ITEM	BEFORE BAN Furniture	BEFORE BAN Lumber	DURING BAN Furniture	DURING BAN Lumber	INCREASE/(DECREASE) Furniture	INCREASE/(DECREASE) Lumber
			In percent			
Watching TV/ batamax/movie	32	31	32	32	0	(1)
Tuba drinking	16	6	13	5	(3)	(1)
Playing basketball	16	23	13	32	(3)	9
Cockfighting	13	6	11	3	(2)	(3)
Listening to radio	11	5	11	10	0	5
Watching basketball	5	15	3	0	(2)	(15)
Benefit dance	5	13	3	10	(2)	(3)
Volleyball	5	10	0	6	(5)	(4)
Reading comics	5	2	3	3	(2)	1
Dama	5	8	0	3	(5)	(5)
Family picnic	11	0	0	0	(11)	0
Gambling	5	0	0	0	(5)	0
Table tennis	5	0	0	0	(5)	0
Strolling	5	0	3	0	(2)	0
Attend mass	5	0	0	0	(5)	0
Bingo	0	5	0	2	0	(3)
Billiard	0	5	0	5	0	0
Playing cards	0	3	0	5	0	2
Serenading	0	2	0	0	0	(2)
Mahjong	0	0	8	0	8	0
Boxing	0	0	8	0	8	0
Bowling	0	0	0	3	0	3

Table 59. Percentage of related industry worker-respondents' children in school, by type of industry

INDUSTRY	CHILDREN IN SCHOOL BEFORE BAN	CHILDREN IN SCHOOL DURING BAN	INCREASE (DECREASE)
		In percent	
Furniture (n=38)	45	45	0
Lumber (n=62)	26	27	1

Table 60. Responses of related industry worker-respondents as to whether income was enough to meet family needs, by type of industry

RESPONSE	FURNITURE (n=38)	LUMBER (n=62)	TOTAL (N=100)
		In percent	
Before ban			
Yes	68	56	61
No	29	42	37
No response	3	2	2
Total	100	100	100
During ban			
Yes	68	37	49
No	29	55	45
No response	3	8	6
Total	100	100	100