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THE PRIMARY WOOD PROCESSING
INDUSTRIES IN HONDURAS ^{1/}

by

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1. BACKGROUND

Honduras is a tropical country located in the Central American isthmus with a population of 2,653,857 inhabitants and a total area of 112,088 Kms² of which 80% of the soil have a forestry vocation.

Actually, there are in the country about two millions hectares of pine forest hectares and approximately three millions hectares of hardwoods.

Traditionally, the utilization of its forestry areas has developed in an irrational ~~pattern~~ this situation didn't produce benefits of any kind for the economy of the country, as we can see from the investigations concerning damages caused by man. Such action, caused the loss of about two millions of hectares of forest eroded to the extent that in some places the ground has been eroded so much that economical recuperation has been impossible.

The forest resources have been affected by: the shifting agriculture, over-pasture fires, and damages due to insects and disease, ~~damages~~ ^{INAs}, the obtainment of the raw materials for the industry has been attained through the practices of

..../...

destructive exploitation (selective cutting) that leaves a great amount of high quality wood in the forest.

With respect to the commercialization of wood, problems can be noticed, as in the domestic market it was impossible to recur to any type of wholeseller, intermediary or agent, the sawmills sold directly to the customer goods that conformed to no accepted standards both with respect to quality and dimensions.

For export purpose they intend to apply "THE SOUTHERN PINE INSPECTION RULES" which the Government never adopted, so the classification depended upon the situation of the offer and demand.

Also, the exporters usually made great loans to the sawmill owners, this situation making the latter dependent on the former while the re-sale of the product on the outside market resulted in great benefits to the exporters leaving the money of the transactions in foreign banks.

To remedy this situation the Head of State established a new forestry policy with the "PLAN OF ECONOMICAL DEVELOPMENT 1974-1978" he announced a change in policy to accelerate the social and economic development of the country and change the emphasis hitherto limited to the agricultural sector. The new policy is to make a rational usage of the forest resources, which are the main natural resource of the country.

.../...

On the other hand, the government control over the industry and trade of forest products was scarce, that result of a great loss of foreign exchange which for 1972 was to be of the order of US\$ 33.0 millions.

The natural resources of the country have been exploited in an inconvenient way for the national interests. The goals to be reached with the new forest policy are: Protect the natural resources; develop an efficient forestry industrialization, utilizing the raw materials, in order to transform them into productive economic values and derive surpluses that can be used by the Government to accelerate the development of other basic sectors, specially the application of the Agrarian Reform. Rationalize the market of this product in order to get enough supply in quantity and quality; and obtain foreign exchange that exportation of forestry products generates, to return them into the country again.

In order to implement this policy the Government issued, in January 1974, the Decree N°103 that created the Corporación Hondureña de Desarrollo Forestal (CONDEFOR) a semi-autonomous entity.

CONDEFOR has a Board of Directors, which assigns a General Manager and approves an organization. It has four technical departments: Forestry Department, Industry Department, Finance Department, Commercialization Department.

.../...

--- Forestry Department is in charge of the administration of the forest.

It must:

- a. Protect and recuperate eroded land,
- b. Procure the social development of the peasant through cooperatives producing naval store exploitation.

--- Industry Department: This Department has the following objectives:

- a. Work on all aspects related to forest industry;
- b. Procure in the future development of secondary forest industries,
- c. Enforce the forestry law giving technical assistance to the wood producing industries.

--- Finance Department: It has the special mission to:

- a. Secure the financial resources requested for the specific projects of the Corporation,
- b. Provide financial resources for the forest sector of Honduras.

--- Commercialization Department: It has been assigned the following objectives:

- a. Commercialization of the forest products derived from the sawmill industry; not only for the local market but also for export.

II. IMPORTANCE OF THIS SECTOR

The forestry sector represents 2% of the Gross National Product which was Lps. 2,060.4 millions in 1975.

III. STATISTIC ON THE NUMBER OF COMPANIES, EMPLOYMENT, VALUE AND VOLUME OF PRODUCTION

There exists at present 133 sawmills which can be divided as follows: 21 band-mills, 3 gang-saw mills, and 109 circular saw mills. Of the first two types, 10 are considered to be big sawmills and 14 medium sized, two sawmills of the large sawmills operate using hardwood.

The circular sawmills represent 82.0% of the total; medium size sawmills represent 10.5% and the large size sawmills represent 7.5% of the total (see Annex No. 1). The total installed capacity of the sawmills is 58.3%, 15.5% and 26.2% respectively. Utilization of installed capacity averaged 50.4%, 60.4% and 42.4% respectively.

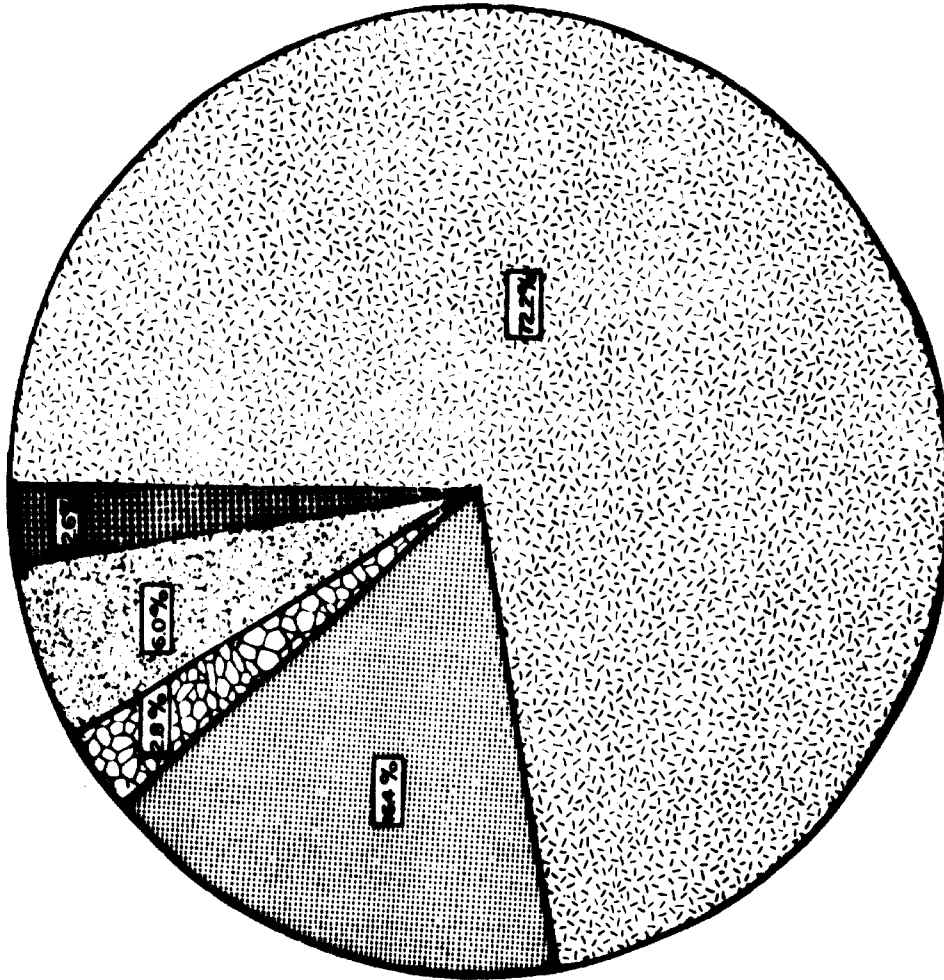
IV. PRODUCTION AND COST OF SAWN WOOD IN THE COUNTRY 1972 - 1974

<u>YEAR</u>	<u>VOLUME PRODUCED (THOUSANDS OF BOARD FEET)</u>	<u>VALUE OF PRODUCTION (LEMPIRAS)</u>
1972	261.560.0	67,901.0
1973	306.258.0	95,736.3
1974	278.255.0	115,475.8
1975	198.714.0	79,366.4
1976 1/	248.000.0	101,680.0






SOURCE: National Statistics Center for 1972-1973; and the Commercialisation Department of Condefor for the other years.

1/: Estimated

LUMBER EXPORT THOUSANDS OF BOARD FEET 1974



MARKETS

-  U.S.A.
-  EUROPE
-  PANAMA
-  SOUTH AMERICA
-  U.S.A.

About 85.0% of the lumber produced in Honduras, is exported and the balance is for domestic use.

The largest market is essentially in the Caribbean area. (See attached charts)

EXPORTATION OF SAWN WOOD

(1 9 7 4)

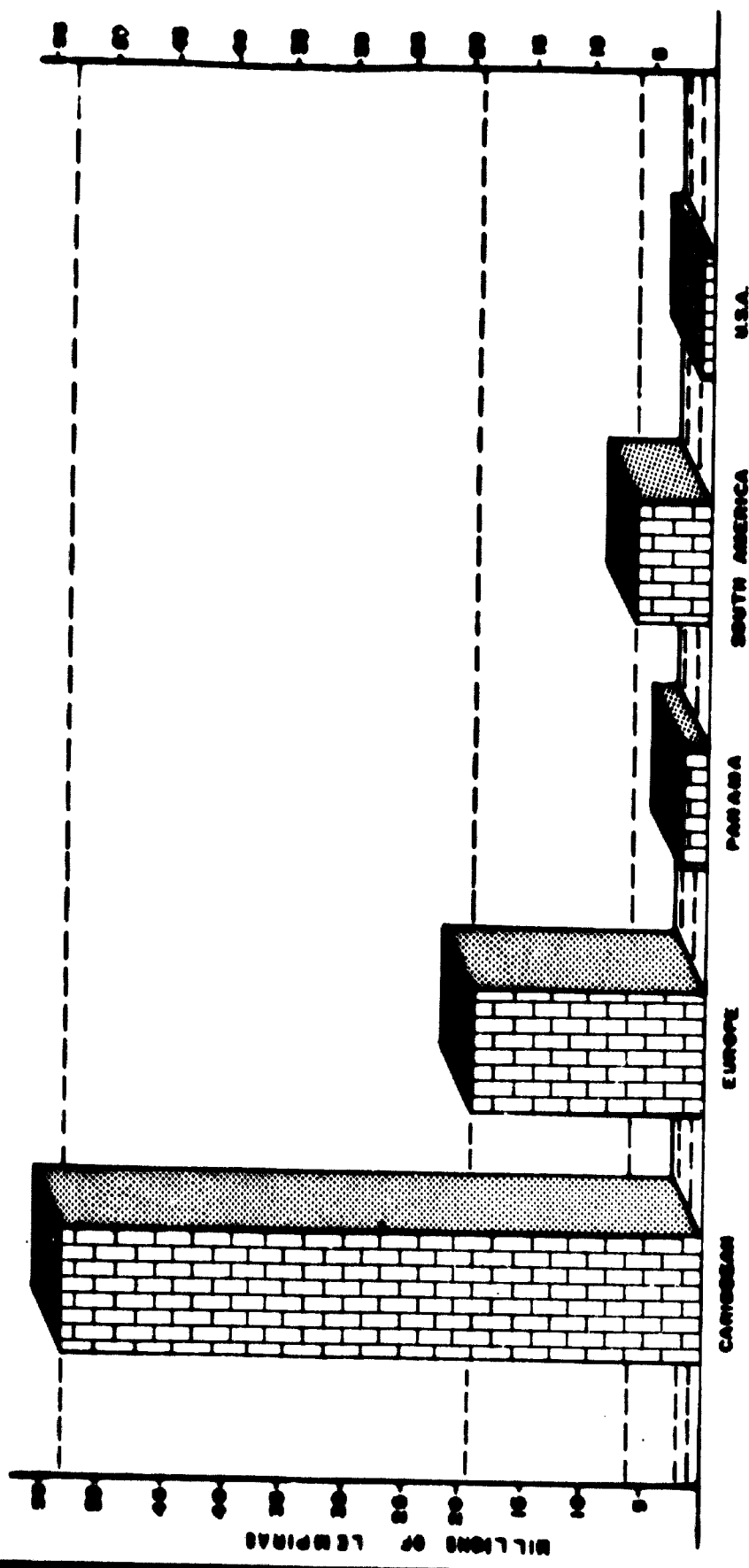
MARKETS	THOUSAND		LEMPIRAS		AVERAGE FOB PRICE (Lempiras)
	BOARD FEET	%		%	PTO. CORTES/1000 B.F.
CARIBBEAN <u>1/</u>	140.282.5	72.2	52,566.5	65.2	374.72
EUROPE	31.820.1	16.4	19,223.6	23.9	604.13
PANAMA	5.501.8	2.8	1,838.7	22.3	334.21
SOUTH AMERICA	11.574.0	6.0	5,665.7	7.0	489.52
U.S.A.	5.046.0	2.6	1,303.5	1.6	258.32
T O T A L	194.224.4	100.0	80,598.0	100.0	----

1/ Including Venezuela

SOURCE: Improvement of Technology in small and medium size sawmills.

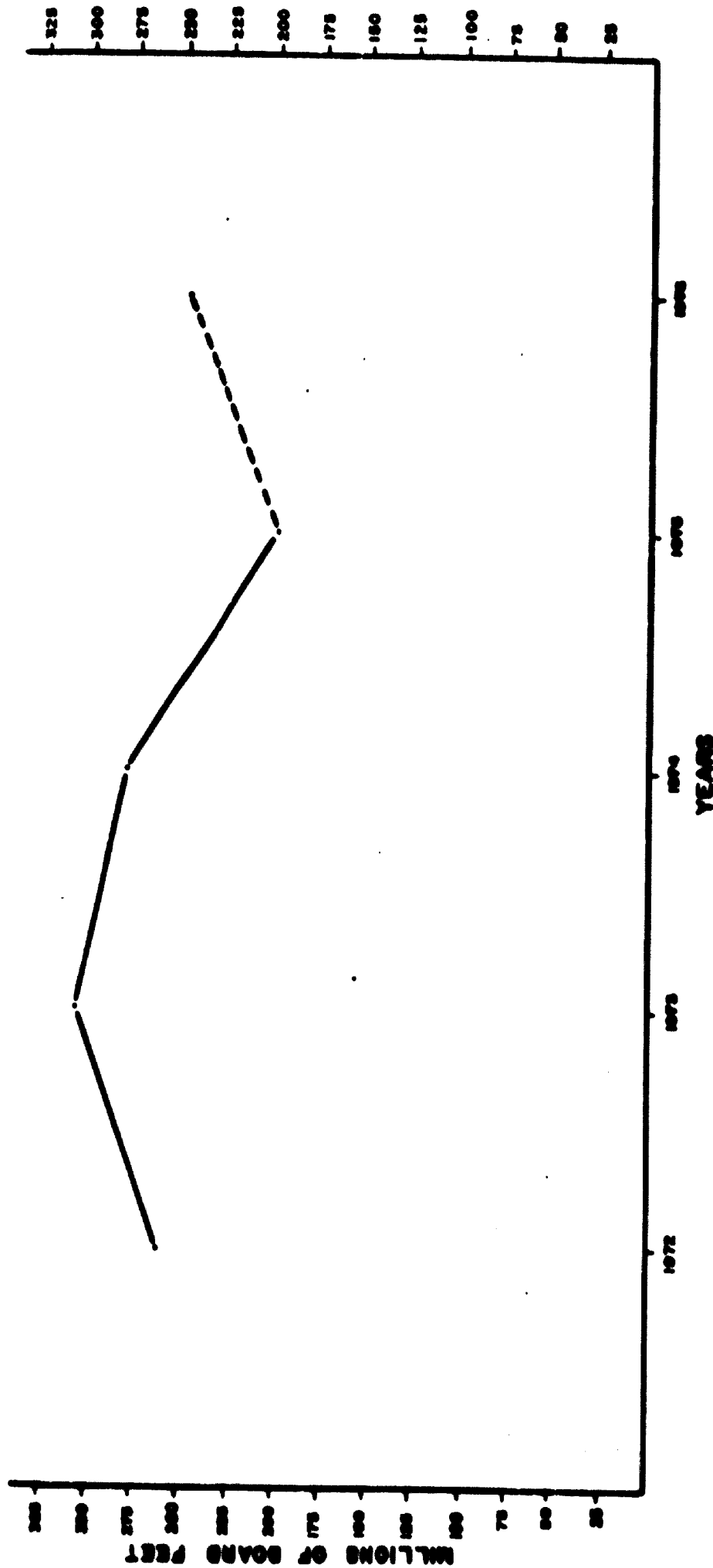
Honduras (IS/HON/72/012) by Manuel Muñoz Alaba.

LUMBER EXPORT MILLIONS OF LEMPIRAS 1974



US \$ 1.00 = 2.00 LEMPIRAS

LUMBER EXPORT MILLIONS OF BOARD FEET 1972 - 1976



— REAL PRODUCTION
- - - ESTIMATES PRODUCTION

V. DEVELOPMENT TENDENCIES

A decreasing tendency to develop this sector has been observed during the years 1972 - 1975 (amounting to approximately 10.0%). This is due to the effect of the hurricane Fifi, a long rainy season and the world economy depression.

Nevertheless, there is confidence that all forest activities are going to increase; an increase in the total production volume, in the levels of employment and export. During 1973 sawn wood was the third largest export (in value) of the country. They represented 15.8 % of the total volume of exports in 1973. By 1975 their share was estimated to be approximately 16.7% maintaining the same position.

VI. PROBLEMS

- a) Forest fires
- b) Shifting agriculture
- c) High level of erosion
- d) Non-accessible roads during winter
- e) Small and medium sized sawmills are badly equipped
- f) The use of obsolete equipment without standards, makes it difficult to get spare parts and raises the cost of maintenance
- g) The use of equipment in poor conditions results in low quality products. Costs of production rise correspondingly.
- h) High level of waste, specially in the forest
- i) Insects attacking the standing timber, and also the lumber
- j) Lack of adequate plans to lower the cost of construction of logging roads
- k) Lack of know-how
- l) Lack of sufficient working capital
- m) Lack in the cost analysis and administration systems that permits to have an immediate idea of how the company is operating.

VII. LABOUR

Approximately 10,000 persons depend directly on activities derived from the forestry sector.

It is believed that in 1975, 766 persons were considered qualified and 257 persons working in administration, the difference being unqualified workers.

Because of the importance of forest development in the country's economy, COHDEFOR started in 1973, and assumed the administration of the National School of Forest Science in Siguatepeque, which operates at a regional level (for Central America and the Caribbean). Since its foundation in 1969 as a project of the Government of Honduras and the United Nations (through FAO) it has trained 29 forest guards, 40 forest bachelors, of whom two are foreigners and 22 Dasonomous (of whom three are foreigners).

The Industrial Department of COHDEFOR developed several technical courses as follows:

1975

- i) "Sawmills Organization Seminars" (31 participants)
- ii) "Improvement of Technologies, in big and medium size sawmills"
- iii) "Sawmills Operations" (13 participants)
- iv) "Circular Saw Operations (13 participants)

1976

- i) "Circular Saw Maintenance" (10 participants)
- ii) "Planing" (15 participants)

Four more courses have been programmed for the rest of this year, two on "Maintenance of Circular and Band Mills", one on the planing of wood and the last on "Cost Accounting". It is foreseen that each of these courses will have an attendance of 12 persons.

Also, the National University of Honduras through the Regional University Centre of the North has a forest department that will give to the country professional foresters. The first three students will graduate in June of this year.

VIII. INSTALLED EQUIPMENT ON A FACTORY TYPE

The typical sawmill of the country has the following equipment: One circular band or a gang saw, a cross cutting saw and finally an anti-stain bath. The wood is air dried.

There are three types of sawmills : small, medium and big sized, their type of equipment is similar. The big sawmills are just several small and medium size sawmills with different lines of production.

The following are the types of machinery commonly used in Honduras: band saw: Brenta; circular-saw: American, Corley, Friok, Corinth; Edger: American, Crosby, Friok, Miner Edger Werke: Trimmers are usually locally made.

A great quantity of the wood produced in the sawmills is sent to the central yards. These yards have enough equipment for the preparation of the wood for exports.

PLYWOOD INDUSTRY IN HONDURAS

Honduras has two plywood factories: TROPICAL PLYWOOD, S.A., its trademark is Troply, S.A. it was founded in 1967. It produces pine and hardwood; the plywood production in 1975 was:

Pine	261,463	sheets
Hardwood	<u>13,244</u>	"
Total	274,707	sheets

TELA INDUSTRIAL MADERERA, S. A. (TEMA)

Founded in 1971. Produces pine and hardwood. In 1975 the production was:

Pine	4,872	sheets
Hardwood	<u>239,180</u>	"
Total	244,052	sheets

ANNEX #1

1975 - REGISTER SAWMILLS

<u>QUANTITY OF SAWMILLS</u>	<u>DESCRIPTION</u>
21	<u>BAND-MILLS</u> Sawmills equipped with band-saws: - 6 with wheel diameter equal or larger than 1.500 mm. - 15 wheel diameter smaller than 1.500 mm.
3	<u>GANG-SAW</u> - 2 Sawmills, the principal machine is a gang-saw (with frame) - 1 with the gang-saw as rip-saw
109	<u>CIRCULAR-SAWS</u> Sawmills equipped with only circular saws.

TOTAL SAWMILLS: 133*
828 Circular-saws

* 13 sawmills more that aren't operating.

NOTE: Many band-mills are constituted by more than one production line.

QUANTITY OF SAWMILLS DESCRIPTION

1 BAND and GANG-SAWS:
1 Band-saw (1.80 m.) and 2 Circular-saws (60") 2 Band-rip-saws (1.2-1.40 m)
3 Edger; 3 Double-Saw-Trimmer; 3 Broom Sticker and 2 Planners.

1 1 Band-saw (1.80m) and 1 Circular-saw (56" diameter); 2 Band-rip-saw (1.80m.
and 1.25m. the first with bar line); 2 Double-saw-edger; 3 Double-saw-edger;
1 Broom Sticker and 1 planner.

1 2 Band-saw (1.60 and 1.35m.) first machine, 4 Rip-band-saws (1.10, 1.25 and
1.40m.); Three 3-Sheets Edger; 2 end-saws, 3 Broom Stickers and 5 Planners.

1 2 Band-saws (1.50-1.25m.) first machine, 2 Rip-band-saws (1.25-1.10m.); one
2-sheet Edger; 2 Double-End-Saw; 2 End-saw; 1 Broom Sticker and 3 Planners.

QUANTITY OF SAWMILLS	DESCRIPTION
4	1 Band-saw (1.50m.) as main machine, and one 3-sheet Edger machine, 1 Double-Edger-saw, 1 Edger-saw and 1 Broom Sticker.
2	1 Band-saw (1.80m Ø) as main machine and one 2-sheet Edger and 1 Edger-saw.
1	1 Circular-saw and 1 Band-saw (1.40m.) as main saw, one 2-sheets Edger and 1 Edger-saw.
2	1 Band-saw (1.40m.) as main machine), 1 Band-saw (1.25m); one 2-sheets Edger; 2 Edger-saw; 1 Broom Sticker and 2 Planners.
1	1 Circular-saw (60" Ø) as main machine, 1 Rip-saw-band (1.30m.); one 2-sheets Edger; 3 Edger-saw; 1 Broom Sticker and 1 Planner.

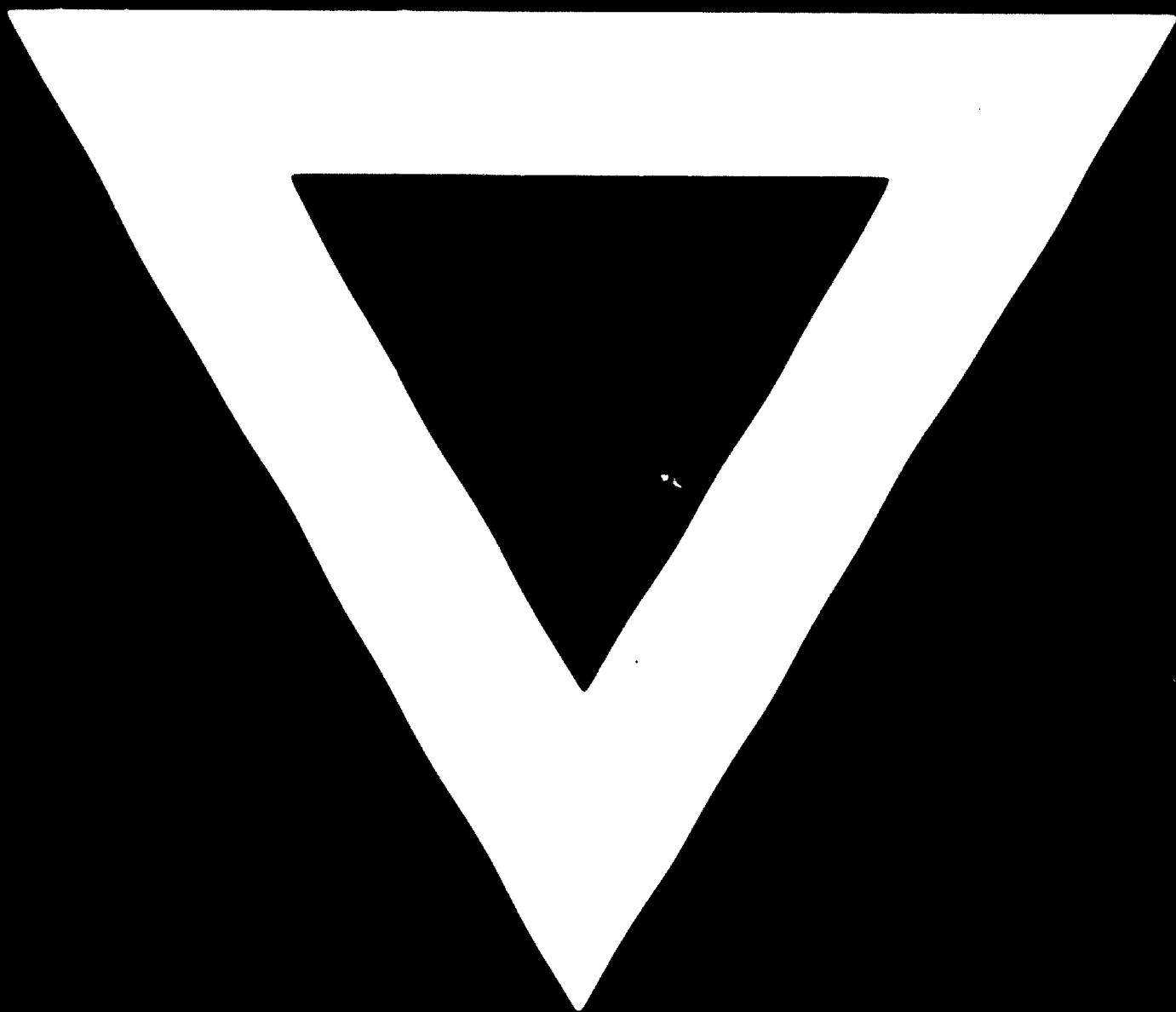
QUANTITY OF SASHILLS	DESCRIPTION
1	2 Band-saws (1.40-1.25m. Vol). and 2 multiple saws, 2 Rip-band-saws; three 2-sheet Edger-saw; 10 Edger saws; 1 Broom Sticker and 2 Planners.
1	3 Band-saw (1.25m.Ø Vol) and one multiple saw; 3 Rip-band-saw (1.10m.) 4 Edgers (2 sheets); 10 Edger-saws; 1 Broom Sticker and 2 Planners.
2	1 Band-saw (1.25m.) and 1 multiple, one Rip-band-saw (1.25m.); 3 Edgers, 7 Edger-saws, 1 Broom Stickers, 1 Planner.
1	2 Circular-saw (54" Ø) and 3 Band-saws (1.40m.); 3 Rip-band-saw (1.40m.) Three 3sheet Edger; 6 Edger-saws; 2 Broom Stickers and 32 Planners.
1	2 Band-saws (1.25m.) and 1 Circular-saw (56" Ø); 2 Band-saws (1.10m.); and 1 multiple as a Rip-saw; 2 Edger, 6 End-saw (2 sheets); 1 Broom Sticker and 4 Planners.

QUANTITY OF SAMMILLS	DESCRIPTION
1	1 Circular-saw (56" Ø) and 1 Band-saw (1.40m.) as main machines; 1 Band-saw (1.40m.); 1 Multiple-saw as Rip-saw; 2 Edgers(2 and 3 sheets); 1 Double-Edger-saw; 1 Planner and 1 Broom Sticker.
2	1 Alternative-saw as main machine, and one 3-sheets Edger and 1 Edger-saw.
1	1 Circular-saw (54" Ø) as main machine, one multiple Rip-saw; one 3-sheets Edger, 2 Edger-saw, 1 Broom Sticker and 1 Planner.
5	<u>CIRCULAR SAMMILLS</u> 1 Circular-saw (50-60" Ø) as main machine, one Edger (2 or 3 sheets); Broom Sticker and Planner.
59	1 Circular-saw (50-60" Ø) as main machine; One Edger (2 or 3 sheets); one End-saw and Broom Sticker.

QUANTITY OF SAWMILLS	DESCRIPTION
4	1 Circular-saw (50-60" Ø) main machine, 1 Edger, 1 End-saw and 1 Planner.
34	1 Circular-saw (50-60" Ø) main machine, 1 Edger, and 1 End-saw.
4	1 Circular-saw (50-60" Ø) main machine and only one Edger.
1	1 Circular-saw (50-60" Ø) main machine and one Edger-saw.
2	1 Circular-saw (50-60" Ø) without any other machines.

SOURCE: Improvement of Technology on small and medium Mills. HONDURAS (IS/MOM/72/012) by Manuel Muñoz Alaba.

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