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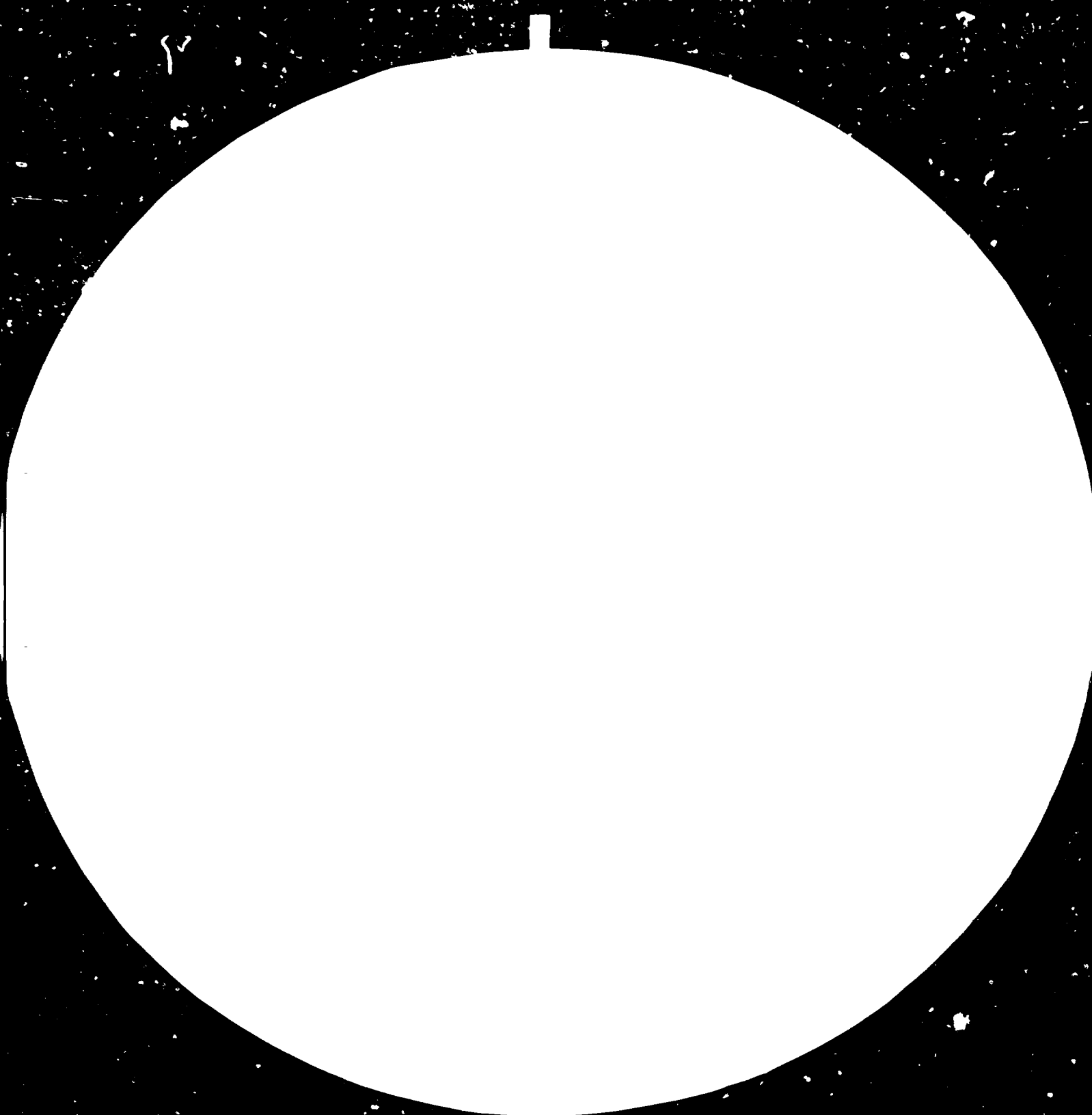
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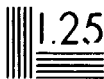
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Regional Meeting for Latin America in preparation
of the First Consultation on the Wood and Wood
Products Industry

São Paulo, Brazil, 4-8 October 1982

THE WOOD AND WOOD PRODUCTS INDUSTRY IN GUYANA *

by

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I wish to thank the Secretariat of the United Nations International Development Organisation and the Wood Products Division of IPT (Instituto de Pesquisas Technologicas do Estado de Sao Paulo) for the invitation extended to me to give opinions on the requirements regarding the development of WOOD AND WOOD PRODUCTS in the Region.

It is not my intention to interest you, excite you or bore you with statistics. These can always be researched. A brief review of Wood Utilization in my country, Guyana, shows that originally we imported our Lumber. As our country was colonised, gradually the Sawmilling Industry and Associated Industries, such as Minor Cabinet and Furniture Manufacture developed. Still there were large imports of Lumber. However, as our country moved towards political independence, it was realised that where it may have been cheaper to import Soft Woods, it need not be the most beneficial economically; thus our country took the step of restricting Lumber imports.

This naturally had the effect of an upsurge in the utilization

of our forest by the Sawmilling Industry. Our resource is part of the Amazonian Mixed Tropical Hardwood Forest and before the question of utilization or rather answers to the question are proposed, it should be understood that this forest is as stated, a mixed forest. This means that whereas there are a range of species in the forest of between eight to nine hundred, perhaps more, there are very few which are available for commercial extraction as an individual species.

The utilization of our woods have ranged broadly within the categories listed:

1. Charcoal
2. Latex (Balata)
3. Particle Board
4. Plywood
5. Utility Poles/posts and Shingles
6. Lumber and Lumber Products, including Furniture, Housing, Heavy Construction Works - Piers, Wharves, Bridges, etc.
7. Power/Fuel
8. Chemicals

1. CHARCOAL

Our Charcoal markets developed to a peak period in the late 1950's and early 1960's. Research on Charcoal from Guyana as an automotive fuel had been done in the 1920's and early 1930's. However, this gave way to cheap, clean petroleum and I know of no further

developments. Similarly, Charcoal as a fuel for heating purposes died out almost completely.

With the advent of the fuel crisis, production of Charcoal is being resuscitated. However, I see the need for encouragement in the use of Charcoal by establishing markets and offering incentives to manufacturers of stoves and or heating units designed to use Charcoal. For example, there is a small country whose government created a market by changing all cooking and hot water systems in their public institutions, such as hospitals, prisons, etc. from gas-burning units to Charcoal-burning units. This is what I mean by creating markets. Some form of royalty is paid for trees in most countries. I would suggest that some of these funds be used to provide an incentive payment for each charcoal-burning unit produced and sold within the relevant country. These are two comparatively minor inexpensive steps that may be taken to encourage the use of Charcoal.

The use of Charcoal as an automotive fuel calls for investment in scientific research, engine design and manufacture which smaller nations cannot necessarily afford and here is the one need that might be solved by Regional co-operation.

2. LATEX

Whether we can consider Latex (commonly known as Balata in Guyana) as a wood product rather than a forest product is a question that I am uncertain of within the definitions of our Meeting. However, we do have a relatively small industry in operation and any information on improved techniques would be of general interest to the Industry.

3. PARTICLE BOARD (CHIPWOOD)

Our country has had one Particle Board Plant established. This failed as an economic venture although the Particle Board that was produced from the species Wallaba (*Eperua falcata*, etc.) was of such high quality that it was recommended for exposure as cladding (outdoor walls). However, two problems identified themselves with the failure of the Factory: (i) power and (ii) glue. As I shall be dealing with each of these problems at a later stage I would not elaborate.

4. PLYWOOD

Presently, we have a Plywood Plant that became operational in the latter part of 1981. This Plant serves a useful purpose by way of import substitution. It has also been established largely through the efforts of our leading Furniture Manufacturer who is in a position to utilise a fair amount of their own products. However,

this Plant also faces problems relating to power and glue.

5. UTILITY POLES/POSTS AND SHINGLES

There is a substantial market in utility poles and posts utilizing the Wallaba (*Eperua falcata*, etc.) species. This is our most abundant species, yet, is not used for Lumber owing to its very high gum content and tendency to split. Wallaba is used for the manufacture of hand-split shingles and recently a Shingle Mill has been established.

6. LUMBER AND LUMBER RELATED PRODUCTS

Lumber producing Sawmills in Guyana have developed servicing three markets:

Firstly - the Greenheart (*Ocotea rodiaei*) market, mainly for marine construction;

Secondly - general lumber and housing markets and

Thirdly - furniture and related products.

The Greenheart market centres around the unique quality of this wood for marine construction and has been, through the years, the back-bone of our export trade. Greenheart (*Ocotea rodiaei*)

is only found in commercial quantities in Guyana and this has led to a rather specialised export trade being developed.

Our other woods are utilized along with the relevant sizes of Greenheart for house construction. In Guyana, the prime building material is wood, thus a local market has developed utilizing other species. The utilization of these other species has been primarily by smaller Sawmills servicing the local construction markets and our furniture and related products market.

Our Lumber Industry has failed, in general, to supply properly dried materials and this is an area that should be looked at for development. However, one of the constraints to development lies in capital costs and another in relevant technology. Too often, the Expert who might come to advise us on Kiln-drying would recommend some type of Kiln that can be purchased for vast sums from developed nations and operates on either electricity or petroleum fuel. I would prefer to have an expert who can advise us on building Kilns from local materials utilizing heat sources obtainable from wood wastes or exhaust systems. Similarly, when we move into the area of Furniture, we are presented with lists of manufacturers from developed nations who basically find a different way to turn a knife or spin a saw. Many of these machines can be custom-built within the developing nation at cheaper costs, providing the technician is there to supervise or draw a blue-print, even a sketch, of what is required, so the

financial constraints of buying wood-working equipment may be reduced. This can only be done providing the expert made available is interested in achievement within the parameters of his working environment.

I have mentioned previously, POWER and GLUE as being constraints, elaborating:

7. POWER/FUEL

In Guyana, entities utilizing wood for manufacture have either to buy from the public utility or provide their own source of power. As the cost of petroleum products escalated, the payment for power became a major factor to the manufacturer. This has been recognised and our Government is trying to develop Hydro-power for our country. Unfortunately, in spite of their best efforts so far and the spending of much of our own capital reserves, we still have a long way to go before Hydro-power becomes a reality. The cost of Power Plant installation is a definite constraint to the planning of any wood products industry. This constraint does not apply in developed nations. While on a tour recently of rural Canadian Sawmills, the Millers when asked, did not know their total power requirement. They just smiled sheepishly and said: "We take it from the grid: just plug in." Unfortunately, the capital cost of providing your own power is prohibitive.

Power from Wood

firewood: Currently, we utilize firewood on a relatively small scale

as fuel for our Brick Factory kilns, bakeries, domestic useage and the production of burnt-earth for road building, another recent revival of an old art.

Steam Generation: Wood waste is utilized by three of our larger millers for the generation of power from Steam Boilers. Unfortunately, the capital costs for installing such equipment makes it difficult for the majority of our millers to now establish this obvious source of power, but I ask a question: should this capital cost be as high as it is, when basically we are talking of a kettle with the lid tied down?

Wood for Steam Generation at Public Utilities:

This use of wood fuel would be desirable. However, an in-depth study is necessary at each location because of the logistics of moving the volume of wood required and also the ecological consideration of growth factors of the species involved. I believe this makes the use of wood unrealistic for public utilities in major urban areas. Nevertheless, this use of wood should be pursued for rural areas, especially near lumber operations that create waste or as a subsidiary fuel to garbage burning units.

Power from Wood Gas

I know very little of this technology. In Guyana, there are two Plants in operation, but there has been a problem of silica deposits and by and large there should be a greater advance in

technology before poorer countries move to this source of power on a large scale. Comparative cost for a Diesel Plant of approximately 750 KW is about equal to a Wood Gas Set, the latter Unit being slightly higher. However, when you add the cost of the Gasifier itself the price becomes exorbitant.

Comment

I would suggest the constraints to the development of alternate fuels are financial and scientific, and as it is claimed that the world is running out of oil, fuel from wood in all forms will have to continue to be pursued in the hope of a break-through, where countries that have forests in abundance maybe able to have a renewable source of energy.

8. CHEMICALS

We have identified glue as a problem. Various wood products, be they Plywood, Particle Board or Furniture use glue. In the case of the Particle Board Plant that had been established in Guyana, there was by cost a higher glue value than wood in the product. Glues in general, have to be imported and high freight rates affect cost. It should be noted that countries such as Guyana have little by way of a Chemical Industry utilizing purely local products. The Wood Products industry needs chemicals in the form of glue, wood preservatives, etc.

The lack of a chemical industry as a constraint to the production of wood products also leaves relatively uninvestigated the possibility of extraction of various other products from trees that may be available (medicines, dyes, who knows?).

GENERAL

It is apparent that in many developing nations, the help that is given by international organisations is so restricted by various agreements that often industrialists are not aware of the expertise that is provided to their nation. Also, the Expert finds himself tied to a bureaucracy and seldom contacts people who are in a position "to get things done." In Guyana fortunately, two such Experts worked with full co-operation of government and industry, to use the infrastructure of industry, to put their scientific knowledge into practical action, from which full reports were obtained on Wood Preservation by the Diffusion Method, and, the Burning of Charcoal using Portable Kilns.

When coming to agreements with Governments, World Agencies should recognise the difficulties inherent in any governmental system and work along with the Government to find practical ways of co-operation between governments, the agency and industry. This

has worked successfully to a point in Guyana and I suggest, even in Guyana, we would like to see more of this type of achievement.

On that note Gentlemen, I wish to apologise because this Paper is becoming no longer brief, so once again, I thank all those concerned with the organising of this Meeting for the opportunity of presenting my views and particularly those present for listening to them.



