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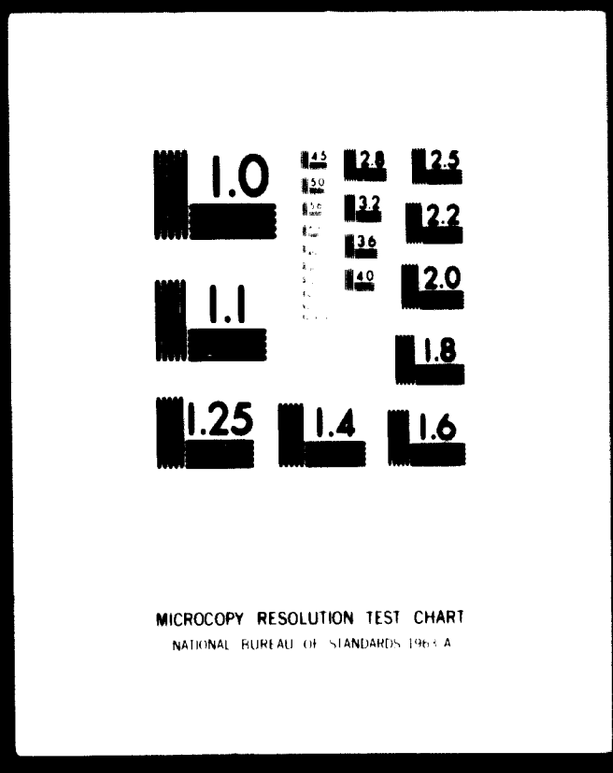

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Industrial Projects
Kuala Lumpur, Malaysia, 14-21 November 1973

Project Information Sheet

INTEGRATED COCONUT PROCESSING PLANT

COUNTRY	Malaysia
PROJECT	Integrated Coconut Processing Plant Capacity: (see page 2) Total Investment: US $4,800,000
FOREIGN CONTRIBUTION REQUIRED	Technical Know-how Equity Participation Marketing

Sponsored by: The Economic Commission for Asia and the Far East (ECAFE) and the United Nations Industrial Development Organization (UNIDO).

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IMPORTANT NOTICE

The basic purpose of this meeting is to provide an Exchange or Market Place for the initiation of contacts on specific industrial projects between their proponents from the Asian countries and potential suppliers of capital, finance, equipment or know-how, as the case may be, from the industrialised countries.

This Project Information Sheet has been prepared as a basis for such contacts. Its purpose is not to present detailed information about the project but to provide the recipient with an outline sufficient to determine tentative interest in principle. Any further available information on the project will be furnished on request to interested parties at the Meeting.

Experience has shown that industrialists frequently prefer to carry out their own further investigations in detail into projects in which they are interested, but assistance from UNIDO in these matters can be rendered to the Asian country concerned on request.

This Information Sheet contains only the information supplied to UNIDO by the proponent of the Project. UNIDO can therefore take no responsibility for its accuracy.

INTEGRATED COCONUT PROCESSING PLANT

I. THE PROJECT

To establish a plant to process the whole nut of the coconut to produce desiccated coconut, rubberized mattresses, needled felt, hardboard and activated carbon. There are two factories manufacturing desiccated coconut and one factory manufacturing activated carbon in West Malaysia. However, this plant, when established, will be the first integrated processing plant in Malaysia.

The output of the plant is designed mainly for export to nearby countries and other overseas markets.

The foreign contribution required is technical know-how, equity participation and marketing. The foreign contribution should also include trials on the different components of the coconut. These trials are expected to be carried out by the eventual suppliers of machinery and equipment at nominal cost.

II. COMMERCIAL ASPECTS

Proposed Capacity

Processing 30,000,000 nuts per annum on a 3 shift basis to produce:

	Per Annum
Rubberized mattresses	600,000 m^2
Needled Felt	2,400,000 m^2
Hardboard	1,500,000 m^2
Desiccated coconut	6,000 tons
Activated carbon	900 tons

Market

Coir Products (Rubberized Mattresses and Needled Felt)

It is difficult to assess with any degree of accuracy the size of the markets for the coir products. This is mainly due to the absence of statistics. However, as these products find wide and popular usage in the industrially advanced countries, it can safely be assumed that they have vast market potential.

Price

In view of the large number of types and sizes it is not possible to ascertain the c.i.f. prices for individual items.

Hardboard

Since there is no domestic production of fibreboard i.e. hardboard and softboard in Malaysia, the demand is satisfied by imports. Imports

of hardboard into West Malaysia in 1971 is as follows:

Commodity Description	Quantity in sq. ft.	Value US $
1/16 in. thick	3,000,000	900,000
1/16 in. to 3/16 in. thick	9,200,000	2,944,000
3/16 in. thick	700,000	182,000

With the boom in the building industry in the United States, United Kingdom and other West European countries, the demand of fibreboard is expected to grow.

Prices

From import statistics, the average c.i.f. price of hardboard between 1/16 in. and 3/16 in. is about US $0.32 per sq. ft. or about US $108 per ton.

Desiccated Coconut

Desiccated coconut is widely used in the preparation of candies, cakes and a wide range of other confectioneries. World trade figures show that desiccated coconut has very good market potential in the West European countries, mainly United Kingdom, West Germany and the Netherlands and the United States. Demand in these areas is currently met from Ceylon and the Philippines.

CIF Price

The price of desiccated coconut has been known to fluctuate. However, it can also be established that the fluctuations are closely related to those of copra and coconuts.

Activated Carbon

In the absence of reliable statistical information on world trade, it is difficult to give an accurate assessment of the market potential of this product. However, it is widely known that activated carbon is finding increasingly more applications, particularly for water purification and air pollution control and from this it can be inferred that demand is growing correspondingly, especially in the developed industrial countries.

Price

The average c.i.f. price is US $298 per ton.

III. PHYSICAL ASPECTS

Location

To be determined at a later stage.

Land

Total land required: 5 acres

Building

50,000 sq. ft. (covered area)

Labour

Direct labour	270
Indirect labour	33
Total	303 required

Wages

	US $ Per Day
Skilled (depending on the skill involved)	2 - 4
Unskilled workers	1 - 2

Infrastructure

This project should be located in an area with access to all necessary infrastructural facilities such as supply of water, electricity and communications.

Utilities

Electricity	18,360 kwh/day at US $0.02 to US $0.04 per unit
Steam	180 tons/day at US $2./ton

Raw Materials

Coconut ranks as Malaysia's third largest crop after rubber and rice in terms of acreage cultivated, covering about 550,000 acres and a production of 900 million nuts in 1971.

Prices of nuts vary with districts and are determined by demand as well as kernel content.

The average price per nut when buying in bulk:

	US $
Sarawak	0.04 - 0.061
Sabah	0.048 - 0.063
West Malaysia	0.028 - 0.05

The prices quoted above are for fresh nuts from small holdings. Estate nuts will sell at a slightly higher price due to their superior quality.

Latex for the manufacture of mattresses is also available in abundance in Malaysia.

IV. ECONOMIC ASPECTS

In view of its contribution to trade and employment, the utilization of local raw materials to the fullest extent and increase of foreign exchange earnings, the project, if established and operating on an integrated basis, would qualify for pioneer status and would be eligible for incentives such as duty free import of machinery and equipment, total or partial exemption from duties on imported raw materials and exemption from corporation and development tax for a period up to 8 years.

V. FINANCIAL ASPECTS

Investment	US $
Land and Building	266,000
Machinery and Equipment	3,400,000
Transport and Installation	218,000
	3,844,000
Working Capital	800,000
Total	4,644,000

The above estimates are based on a previous study and may require up-dating.

Financial Structure

No financial plan established as yet.

Cost of Production

	US $	US $
Raw Materials cost		
Whole nuts at US $0.05/nut	1,560,000	
Latex at US $300/ton	450,000	
Consumable stores	40,000	2,050,000
Utilities		262,000
Labour		371,600
Depreciation		334,000
Overhead		775,600
	Total	3,793,200

VI. OTHER RELEVANT INFORMATION

Proponents

Federal Industrial Development Authority (FIDA)
5th and 6th Floors, Wisma Damansara, P.O. Box 618
Kuala Lumpur, Malaysia Tel: 202388 Cable: FIDAMAL

on behalf of State Development Corporations. The State Development Corporations of Sabah and Sarawak have expressed interest in the implementation of this project.

Proposed Legal Structure

A private limited company is to be formed.

Documentation

A preliminary project study on An Integrated Coconut Processing Complex by FIDA will be available at the meeting on request.

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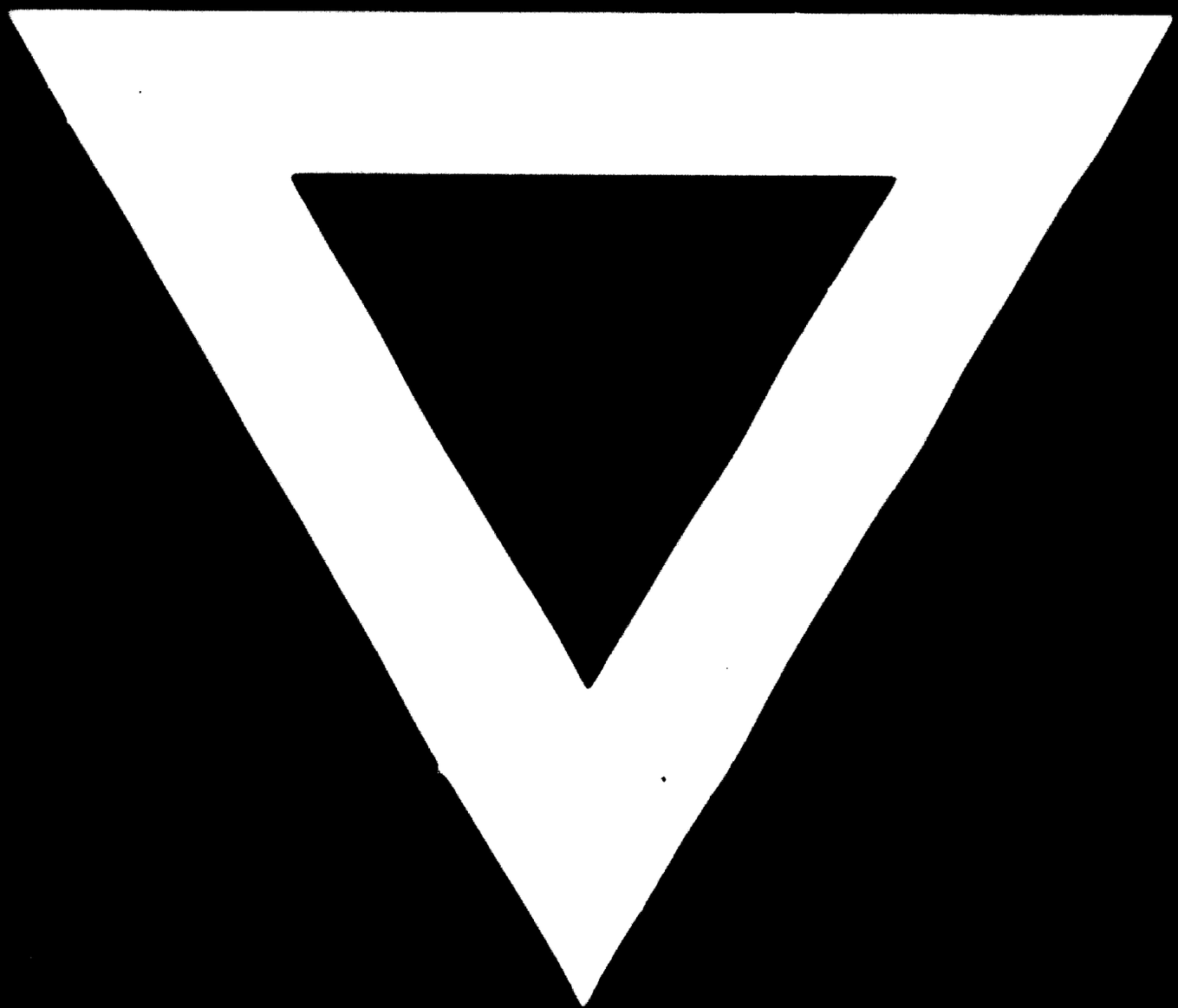

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