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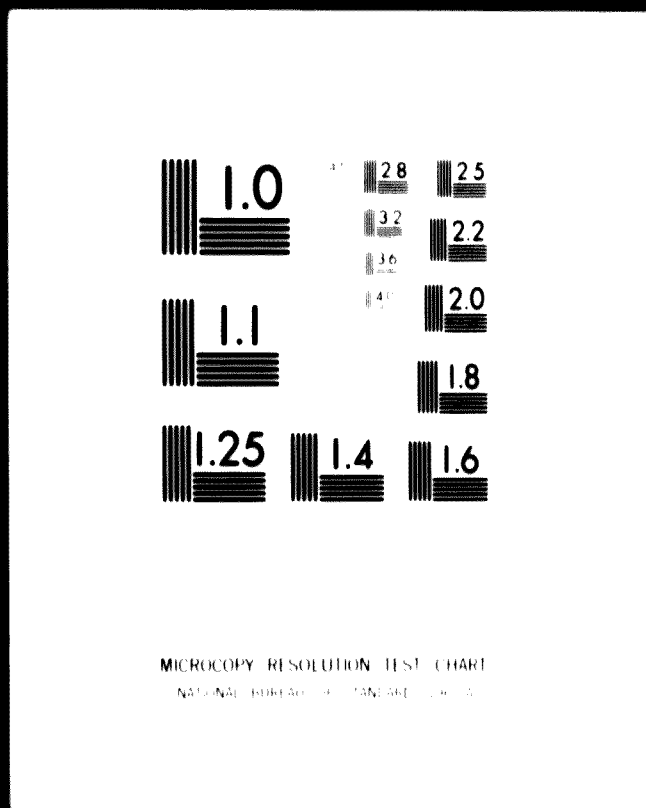
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United Nations Industrial Development Organization

PROJECT INFORMATION SHEET

CHD-05-71

THIRD AFRICAN MEETING TO PROMOTE INDUSTRIAL PROJECTS ^{1/}

ABIDJAN, IVORY COAST, 24 NOVEMBER - 1 DECEMBER 1971

TWO INDUSTRIAL OIL MILLS

COUNTRY: Chad

PROJECT: Two industrial oil mills

Annual capacity: Oil mill at Abéché:
2,000 tonnes of groundnut oil; oil mill at Pont-Carol:
1,500 tonnes of cottonseed oil

Investment: Not yet estimated

FOREIGN CONTRIBUTION REQUIRED: Equity
Equipment
Financing



^{1/} Sponsored by: The African Development Bank (ADB)
The Economic Commission for Africa (ECA)
The United Nations Industrial Development Organization (UNIDO)

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 African countries and potential suppliers of capital, finance, equipment or know-how, as the case may be, from the industrialized 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 African 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.

TWO INDUSTRIAL OIL MILLS

I. THE PROJECT

It is planned to construct two industrial oil mills with capacities of 2,000 and 1,500 tonnes of oil at Abéché and Pont-Carol, respectively. The plant at Abéché will use groundnuts as its raw material, while the one in Pont-Carol will use cottonseed. These two projects are included in the Five-Year Plan for 1971-1975, and are assigned priority by the Government of Chad. They could therefore enjoy the tax and other incentives provided for in the Investment Code.

II. THE MARKET

(a) Current demand

According to official statistics, total oil consumption increased from 800 to 1,680 tonnes between 1963 and 1968. This means a growth of 110 per cent over the five years, or 16 per cent a year. The growth has not been uniform for the different varieties of oil marketed. For example:

- Consumption of cottonseed oil grew slowly, from 280 tonnes in 1963 to 370 tonnes in 1968, in other words, at an annual rate of 5.7 per cent;
- Consumption of groundnut oil (including a large proportion - 230 tonnes - of unrefined oil from Nigeria) increased from 130 tonnes in 1963 to 730 tonnes in 1968 i.e., at a rate of more than 40 per cent a year;
- The consumption of mixed oil increased from 390 tonnes in 1963 to 580 tonnes in 1968 i.e., at a rate of 8.3 per cent a year.

In actual fact, current consumption of edible oil exceeds the official figure of approximately 1,700 tonnes and is estimated to be at least 3,700 tonnes. The difference is accounted for by a cottage industry production utilizing a large proportion of the groundnuts produced in Chad. Real requirements in respect of edible oil can be estimated to be at least twice current consumption, i.e., 7,400 tonnes (2 kg of oil per capita).

There are at present four industrial mills in Chad. These are:

	<u>(tonnes of capacity)</u>
Olafric oil mill	1,200
Solt oil mill	700
Pelissard oil mill	300
Abéché oil mill	2,000

(b) Retail oil prices

At Fort-Lamy, imported refined groundnut oil, consumed primarily by Europeans, costs 350 to 400 CFA francs per litre. Cottage industry groundnut oil is sold at 170 CFA francs, and the oil produced industrially by Olafric sells for between 125 CFA francs and 145 CFA francs per litre.

At Abéché, cottage industry oil is sold on the market at 195 CFA francs.

(c) Future demand

Demand during the decade 1970-1980 was determined by extrapolation from past consumption, applying an annual growth rate of 12 per cent. In 1980, demand for edible oil will amount to 5,000 tonnes. The demand created by two new soap factories which are to be set up at Abéché and Pont-Carol, respectively, must be added to this amount. Their demand for 1980 is estimated at 5,000 tonnes of oil. At that time, total oil demand in Chad will amount to 10,000 tonnes, comprising 5,500 tonnes of cottonseed oil and 4,500 tonnes of groundnut oil. To meet this demand, it will be necessary by 1980 either to establish new oil mills or to expand the existing ones. The new capacity required amounts to at least 6,000 tonnes.

III. PHYSICAL ASPECTS

(a) Raw material resources

The only two sources of oil used in Chad are groundnuts and cottonseed. Production of unshelled groundnuts amounts to approximately 120,000 tonnes a year, and that of cottonseed amounts to 60,000 tonnes, of which 5,000 to 6,000 tonnes are used for oil-making. Another 24,000 to 25,000 tonnes find various markets as seed, livestock feed and fuel. The remaining 3,000 tonnes, which represent 5,000 to 6,000 tonnes of oil, are destroyed. There is, however,

another source of oil. This is the shea tree, which is very abundant in the southern part of the country. It is estimated that there are at least 20 million trees which are virtually unexploited. The exploitation of only 2 million trees would make possible the production of at least 1,800 tonnes of shea butter, which could be used in soap-making.

(b) Other information concerning labour, the cost of energy, infrastructure, etc. is given in the annex.

IV. FINANCIAL ASPECTS

Since a feasibility study has not been undertaken, it is difficult to estimate the amount of investment required to set up these two oil mills.

V. FOREIGN CONTRIBUTION REQUIRED

Suppliers of equipment are asked to make offers on the basis of the information contained in this information sheet. The offers should indicate the FOB and CIF cost of the materials and equipment, the processes proposed and the total cost of a plant in turnkey condition (equipment assembled, civil engineering, starting-up costs, etc.). Offers of equipment should be accompanied by details of financing arrangements.

Proposals from investors wishing to take charge of setting up either of the oil mills are also desired.

VI. ADDITIONAL INFORMATION

A. Project submitted by:

Haut-Commissariat chargé du plan et des aides extérieures
(High Commission Responsible for the Plan and Foreign Assistance)

B.P. 286

Fort-Lamy, Chad.

B. Full technical and profitability studies concerning this project are to be carried out.

ANNEX

MISCELLANEOUS INFORMATION

1. Industrial wage and salary scale (monthly)

	<u>CFA francs</u>
1st category: labourer	4,500 - 5,000
2nd category: specialized labourer	6,500 - 7,500
3rd category: worker or clerk, starting	9,500 - 10,500
4th category: worker or clerk, ordinary	12,500 - 13,500
5th category: worker or clerk, skilled	19,000 - 23,500
6th category: worker or clerk, highly skilled	29,500 - 32,000
7th category: foreman or senior clerk	38,000 - 41,500
8th category: supervisory and technical staff	60,000 - 105,000
9th category: senior supervisory and management staff	120,000 - 150,000

2. Social welfare payments

In industry these represent 20 to 25 per cent of wages.

3. Electricity rates (in francs/kWh)

Rates, without taxes, at Fort-Lamy:

Low voltage: Domestic lighting and other domestic use:	1st block:	23.60
	2nd block:	37.00
	3rd block:	28.00
	4th block:	23.50
Motive power:	1st block:	23.50
	2nd block:	20.20
Public lighting:	1st block:	23.50
	2nd block:	20.20

High voltage: general tariff - uniform rate: fixed charge: 894.65 per kVA subscribed; single rate: 17.67.

Taxes of 10.45 per cent should be added to these rates.

General high voltage tariff (uniform rate) at other centres:

Moundou: 19.10

Fort-Archambault: 19.10

Abéché: 20.00

4. Water rates

At Fort-Lamy: 40 CFA francs/m³

At Moundou, Fort-Archambault and Abéché: 65 CFA francs/m³

5. Retail fuel prices (at pump)

At Fort-Lamy:

Petrol (ordinary quality): 63 CFA francs/litre

Petrol ("super" quality): 67 CFA francs/litre

Gas oil: 57 CFA francs/litre.

6. Building costs

At Fort-Lamy:

Manufacturing shed or shop with masonry walls: 25,000 CFA francs/m²;

Open shed: 12,000 to 15,000 CFA francs/m²;

Industrial building: 40,000 to 50,000 CFA francs/m²;

Accommodation and offices: 60,000 to 80,000 CFA francs/m².

7. Infrastructure

Fort-Lamy and Moundou are connected to each other and to the outside world by practically permanent roads. Bol is linked to Fort-Lamy by Lake Chad and the River Chari. It is also possible to go by road, but the distance is great and it takes a long time.

Distances: Bol - Fort-Lamy, by road: nearly 500 km;

Bol - Djimtilo, by the Lake: less than 100 km;

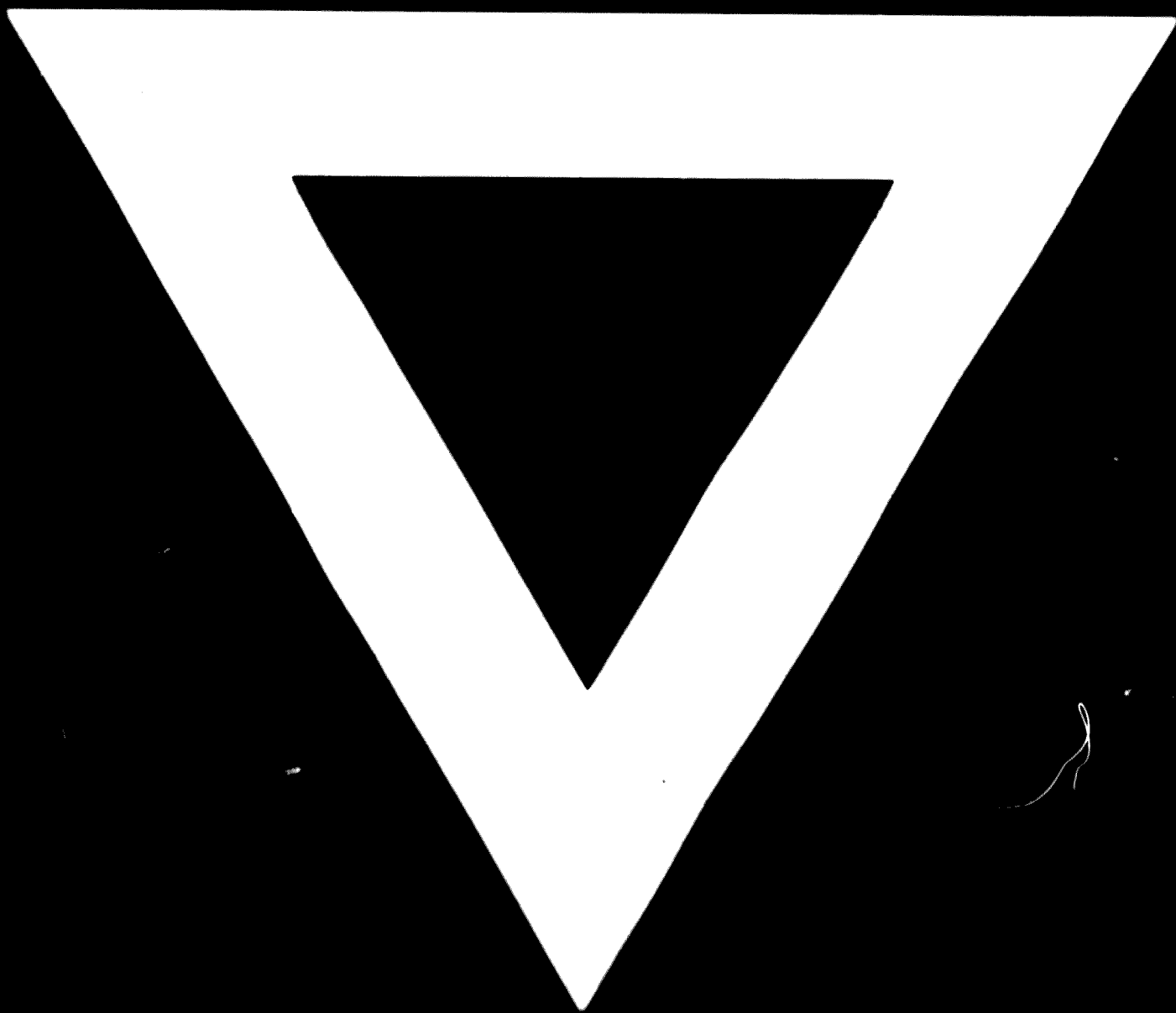
Djimtilo - Fort-Lamy, by road: 110 km;

Fort-Lamy - Moundou: 500 km;

Fort-Lamy - Bangui: 1,200 km;

Moundou - Bangui: 635 km.

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