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Distr.
LIMITED
ID/WG. 282/76
9 October 1978
ENGLISH

08856

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

INTERNATIONAL FORUM ON APPROPRIATE INDUSTRIAL TECHNOLOGY

New Delhi/Anand, India 20—30 November 1978

WORKING GROUP No.9

APPROPRIATE TECHNOLOGY FOR THE PRODUCTION OF OILS AND FATS

ROBLEMS OF RAW MATERIALS ACQUISITION IN GHANA.

Background Paper

PROBLEMS OF RAW MATERIALS ACQUISITION IN GHANA

by

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PURPOSE:

To highlight the problems of raw materials acquisition in Ghana and attempts at their solution.

INTRODUCTION:

Tema Food Complex Corporation (T.F.C.C.) has a 100 tons per day oil milling facility that is utilizing only about 5 per cent of its capacity.

There are several reasons for the underutilization of capacity.

1. One reason is the absence of a vegetable oil refinery and also the lack of items of seed preparation equipment. The lack of a refining facility limits the raw materials base.

   The T.F.C.C. Oil Mill has been limited to processing peanuts and palm kernels due to the absence of a refining facility. A refinery would permit the processing of readily-available seeds such as soya beans, cottonseed and shea nuts.

   Faltered oils from these seeds cannot be used for direct human consumption without refining.

2. A major reason for the underutilization of the Mill is the inadequacy of local supplies of raw materials. There are several causes for the inadequacy of raw materials supplies and these will have to be examined in the course of our discussions.

3. Another is that even when the raw materials are available, there are serious impediments placed in the way of collection and purchasing of the seeds. Part of the problem here is attributable to the poor transportation network and infrastructure. The other impediments relate to the activities of smugglers, small-scale traditional extractors, and the competition from direct consumers of the materials in food preparation.

Arrangements are virtually complete towards the establishment of a Refinery.

We intend, therefore, to focus on our purchasing experiences to amplify some of these seed acquisition problems. The point is that even when the technology exists, there are still other problems that make it difficult to

apply the technology efficiently and effectively. We shall look at the question of raw materials acquisition in order to outline some of the impediments to effective technology utilization.

DISCUSSION:

The T.F.C.C. Oil Mill was established in 1973 and started production in September of that year. Our production figures have been:

YEAR	RAW MATERIALS THROUGHPUT IN TONS
1974	1,200
1975	1,200
1976	1,000
1977/1978	1,300
1978/1979	NIL

These figures can be further broken down to show the sources of supply. In 1974 and 1975 we bought the ground-nuts from Senegal and Gambia respectively. In 1978/79 we could not import from West Africa because of the poor rainfall in the region resulting in a poor harvest in the principal ground-nut-producing countries, even though we were granted sizeable licences for imports. Local sources were dried up due to a poor harvest and extremely high prices.

The low capacity utilization caused enough concern for T.F.C.C. to take a close look at the raw materials situation and find remedies. We realized immediately that we had to intensify the raw materials purchasing activities and more important also diversify the raw materials base to cover oil-seeds such as cotton-seed, palm kernel, shea nuts and soya beans.

The expected improvement of the raw materials base was intimately linked to the acquisition of a vegetable oil refinery.

To justify the investment in the refinery, one had to be reasonably sure of a steady supply of the raw materials. Since we have a coupled problem, the solution had to be concurrent or simultaneous. As stated elsewhere, plans are virtually complete towards the establishment of a refinery. Now we are investigating the raw materials acquisition aspect of the problem.

RAW MATERIALS:

AVAILABILITY ESTIMATES

OIL-SEED	QUANTITY IN TONNES
Ground-nuts	45,000
Palm Kernels	25,000
Shea Nuts	9,000
Cotton-seed	5,000
Soya Beans	500

These estimates are derived from data available at the Ministry of Agriculture. However, our own purchasing experiences cause us to suspect the correctness and accuracy of the data. Some of our suspicions will become evident as we discuss the individual oil-seeds. We have not included copra because T.F.C.C. has withdrawn from the competition for copra in favour of our sister corporation, Ghana Industrial Holding Corporation (GIHOC) with a Vegetable Oil Mill sited in a major producing area in the Western Region.

It would appear from these estimates that there should be sufficient oil-seeds to feel all the existing oil mills. Let us take a look at the capacities and processing activities of the processors.

NATURE OF COMPETITION:

ESTABLISHMENT	MAIN RAW MATERIALS	CAPACITY
1. Ghana Industrial Holding Corp. Vegetable Oil Mills (Div.)	1. Ground-nuts	3,580
	2. Copra	7,000
2. Crystal Oil Mills	1. Ground-nuts) 2. Copra)	2,000
3. T.F.C.C.	1. Ground-nuts) 2. Palm Kernels) 3. Shea Nuts) 4. Soya Beans)	20,000
4. Miscellaneous producers and consumers		

The Vegetable Oils Mills Division of GIHOC has two separate factories at Tamale and Atebubu processing ground-nuts and another at Essiama processing copra. They also have small non-operational mills at Denu and Bawku of approximately 2,000 tons each per annum.

Crystal Oil Mills and T.F.C.C. have single factories for processing the various oil-seeds.

T.F.C.C. has the largest capacity and potential flexibility of the mechanical processing factories by far for handling oil-seeds.

Given the above estimates, even if they are suspicious, of available raw materials, one is hard put to explain why the combined total purchases of the established mechanical processor have only accounted for an average purchase per year of:

Ground-nuts	4,000
Copra	5,600

The miscellaneous consumers command a sizeable share of the market. These consumers comprise the small-scale traditional processors of cooking oils and those who use the seeds, particularly ground-nuts, directly in food preparations.

There exists a large volume of cotton-seed, shea, palm kernel and soya which T.F.C.C. could easily concentrate on, leaving the others to vie for ground-nuts and copra.

The problem is that even though these quantities may exist, their collection is not so easy. We propose to examine the special problems of each of the oil-seeds.

GROUND-NUTS:

These are cultivated on a commercial basis, mainly in the Brong Ahafo, the Northern and Upper Regions of the country, with small subsistence cultivation in the Eastern, Ashanti and Volta Regions.

In the Southern Regions, the harvest is almost all for direct consumption. The processing mills and the traditional contractors have to look to the Northern, Brong-Ahafo and Upper Regions for their supplies. Of the estimated

45,000 tons of groundnuts produced in the country, about 75 per cent is located in these regions.

The principal factors militating against the mechanical processors are:

(a) Stiff price competition from the traditional processors and smugglers;

(b) Poor road network to the farm gate;

(c) Attraction of other cash crops and limitation on finished products price imposed by the Prices and Incomes Board.

The traditional processors and middlemen in the trade are generally residents in the area who live quite close to the farmers. These middlemen have for a long time been advancing loans and other services to the farmers. Over the years a certain amount of confidence has been built between the farmers and the middlemen. Thus the farmers' first choice of buyers are the middlemen. A middleman may have several farmers obliged to sell their produce to him. It is very difficult to break the confidence circle that exists between the farmers and the middlemen. The middlemen in turn sells to the traditional extractors who may decide whether to sell or extract the oil, depending on how profitable they consider either operation at any given time.

The recent famine in the Sahel region of West Africa and the foreign exchange situation in the country has given a boost to smugglers who are prepared to pay any price for the nuts. Their main business is to sell the nuts in neighbouring countries at exorbitant prices, pick up the foreign CFA francs which they either change on the black market at very high rates of exchange or bring in scarce commodities from the neighbouring countries to sell at speculative prices in Ghana.

The main reason the traditional extractors operate successfully is that they can sell their products at uncontrolled prices whilst the factories are subject to the control of Prices and Incomes Board.

As a first step in trying to break into the market, we tried to buy through the middlemen. They demanded cash advances to permit them to extend their services to more farmers and also empty jute bags to supply to the farmers. We learnt a few leasons.

Some middlemen colluded with smugglers to intensify that activity and returned our monies to us at the end of the buying season having realized huge

profits in the meantime.

Some middlemen just absconded with the money and others took advantage of the competition between the buying agents from the factories to bid prices up to prohibitive levels. The results of this approach was most discouraging.

The next gambit was to replace the middlemen as providers of loans and services to the farmers. This scheme was started in 1975 by GIHOC and the Agricultural Development Bank in the Northern Region.

After some early setbacks, the scheme seems to be thriving. In the early stages, some farmers, unsure of early evacuation of their produce due to the poor transport facilities, and afraid of product deterioration with a consequent lowered value, sold to their traditional middlemen, despite having received loans and services from GIHOC.

The continued success of the scheme will depend largely on the availability of improved seeds with high oil content, fertilizers, tractors and land-clearing equipment. Maintenance facilities for the repair of farm machinery and spare parts must be provided to ensure the availability of the machinery at the time when it is most needed.

T.F.C.C. decided to enter the farming arena directly. We have a farm organisation cultivating groundnuts at Ejura and Agbakope in the Ashanti and Volta Regions respectively. We have so far cultivated 500 acres at Ejura and 100 acres at Agbekope. These farms are supposed to form the nucleus for out-growers. The farms produce improved seedlings of high oil content for supply to the outgrowers and also serve to demonstrate modern methods of cultivation. We offer extension services and other inputs to the surrounding farms, especially farm machinery.

Despite the various farm schemes, we still have to interest the small-scale farmers in groundnut cultivation as opposed to other attractive cash crop cultivation. The areas most suitable for groundnut cultivation are also areas that can effectively support cotton, rice and maize cultivation.

There are various Boards concerned with these crops and they hold out attractive conditions for the farmers. The only incentive we can offer the farmers to attract them to groundnut cultivation may lie in fixing attractive competitive prices for groundnuts vis-à-vis the other cash crops. We shall discuss this point under general recommendations.

PALM KERNELS:

The availability of palm kernels in the future holds very bright prospects. Palm grows mainly in the Ashanti, Central, Eastern, Western and Volta Regions. In these areas we find palm growing wild or cultivated in small and large plantations. By far the most important producer of palm fruits is the State Farms Corporation. With the introduction of the "Outgrower" scheme and the active support of the Banks, we expect private plantation holdings to increase at a fast rate. The Government has targetted to add 70,000 acres of palm farms to the existing farms by 1982, and the plan is proceeding satisfactorily.

Since we are mainly concerned with palm kernels, we shall focus on our dealings with the processors.

There are three categories of suppliers of palm kernels.

The first group comprises the established palm oil factories which are:

PRIVATE MILLS:

Ashanti Oil Mills	Kumasi
Anwiankwanta Oil Mill	near Bekwai
Bogoso Oil Mills	Bogoso
WAFF Trading Company	Nkwantanum

STATE FARMS:

(a)	Asraku Oil Mills	Pretsea
(b)	Sese Oil Mills	Sese
(c)	Kwamoso Oil Mill	Kwamoso
(d)	Juaso Oil Mills	Juaso

State Farms Corporation also plans to set up small processing units where they have supporting farms at:

Jukwa	5,000 acres
Okumanin	10,000 acres
Foso	5,000 acres
Akwansirem	10,000 acres

as part of their "Outgrower" scheme. Under this scheme, State Farms will acquire the land and give out equipment and other inputs such as seedlings and labour to prospective farmers. The farmer will be put in touch with a Bank

which will finance the project. The farmers' obligations are reduced to supervising the labour and general farm management but selling the total produce to the nearest State Farms Factory at an agreed price. The scheme is just getting off the ground but it holds out good prospects. We expect that within the next few years, State Farms will be the largest single supplier of palm kernels to T.F.F.C.

There are other groups and firms actively engaged in the cultivation and processing of palm products. Unilever Farms have planned a 12,000 acres palm plantation with processing facilities for palm oil and palm kernel oil at Adum-Banso in the Western Region.

The World Bank also have a 10,000 acre-plantation being cultivated at Kwae in the Eastern Region. The project aims at processing the palm fruits for palm oil and palm kernel oil. We do not expect to be able to buy any palm kernels from those two establishments.

The other privately-owned mills obtain their raw materials from surrounding farmers. The supply of raw materials is not steady and the prices also fluctuate and most of these mills have not been able to operate continuously. Originally, most of these mills were established without supporting farms but were able to take advantage of the available palm fruits in the respective areas and to replace the traditional wasteful process with modern machinery and technology. The farmers, who tend to be processors also, now choose to sell their fruits or extract the oil, depending on the economics of either operation at a given time. In the full harvesting season, when there is a glut of fruits, they sell to the mills. However, in the early and late seasons, they extract their own oils.

Most of the mills produce shelled palm kernels for which T.F.F.C. is preferable.

The second source of supply are those individual farmers who process their palm oil in the farms or in surrounding villages.

These farmers are medium-size producers but can be expected to produce a sizeable quantity of palm kernels if we organize how to reach them effectively. This group of suppliers tend to generate another supply source in that the farmers sell some of their produce to the women in the surrounding villages who produce on a small scale. However, since we find the villges in a cluster,

we tend to group the traditional extractors in the medium-size suppliers of palm kernels. This type of cluster source of supply is found in Kade, Kusi, Tweneduasi, Boadukrom, Oda, Akwatia, Tafo and Kenyasi. These suppliers only sell the unshelled palm kernels.

The third category of suppliers are the unorganized individual palm oil extractors living in areas abounding in wild palm fruits. This source is scattered all over the palm-growing areas. The seeds will have to be collected in small headload lots and it will require a tremendous organization of money, manpower and machinery to collect the seeds. This is fertile ground for the traditional palm kernel oil extractors and the competition for kernels is stiffest.

In our maiden foray into the purchasing of palm kernels this year, we encountered difficulties which we hope can be overcome shortly. With the first group of suppliers, we do not expect much of a problem except that the mills had committed themselves to supplying the palm kernels to some traditional extractors before T.F.C.C. entered the trade. Some of the privately-owned mills have agreements with the farmers who sell their palm fruits to the mills to sell the palm kernels back to the farmers who in turn re-sell the kernels to the women in the extraction end of the business. To buy from the mills directly would mean higher prices for the fresh palm fruits to the mills and T.F.F.C. will have to absorb the increased cost when we buy the palm kernels. Thus we should expect to pay higher prices when we deal with the private mills for palm kernels.

The medium-scale producers can also be organized to supply their seeds to T.F.C.C., if the price is right and we can make prompt payment and evacuation.

The real problem lies with the scattered group of suppliers. To handle this group, have proposed appointing agents in various towns and villages to purchase for T.F.C.C. on a contract basis with adequate commissions granted to make the effort worth their while. We expect transportation to be the main problem to be faced.

The sad thing about palm kernels is that most of the nuts go to waste. Some of the mills sometimes burn palm kernels wholly, instead of the shells, for fuel. The medium and scattered group sell their nuts to traditional small-scale extractors who go around periodically to collect the unshelled nuts in small headload lots, leaving a lot of the kernels to be thrown away.

The principal reason why people throw away the palm kernels is that there is no organized purchasing of UNSHELLED palm kernels. Most processors, traditional or mechanical mills, prefer the shelled nuts because the shelling presents a slow, painstaking job for the producers. T.F.C.C. has shied away from palm kernels because it did not have fast mechanized shelling equipment. Now it does.

The author, on a recent trek, managed to create an awareness of the potential money to be made in selling unshelled palm kernels among the second and third category to suppliers. We only have to fix and maintain attractive prices with our agents to inject some organization into the market.

COTTON-SEED:

Cotton-seed purchasing should not present a problem if we can convince the Cotton Development Board (C.D.B.) not to duplicate our efforts. The C.D.B. is planning to establish an oil processing mill as an integral part of its operations. Hence the Board is reluctant to commit itself to supplying cotton-seeds to any other organization. T.F.C.C., the C.D.B., the Ministry of Agriculture and the Ministry of Economic Planning should be able to resolve the issue so that money is allocated to T.F.C.C. to purchase the requisite seed preparation equipment (e.g. delinting and dehulling machines) for cotton-seeds, instead of investing a colossal amount of money in a new processing factory.

The C.D.B. is the sole purchaser of cotton in the country and, therefore, if we can reach an understanding with them, we can have a very easy access to the cotton-seeds.

SOYA BEANS:

This is not a major oilseed at present but with the establishment of the Grains Development Board, activity is gingering up. Part of the reason for the slow development and cultivation of soya beans has been the lack of interest shown by prospective processors, particularly T.F.C.C. which needs the expeller cake for the Animal Feed Factory. The prospect of a vegetable oil refinery being installed at T.F.F.C. to enable it to process soya bean oil effectively seems to have regenerated interest on the part of the farmers. The Ministry of Agriculture is urging T.F.F.C. to process soya beans for the

cake to be released to the Animal Feed Concentrate manufacturers. This ties in with the Ministry's efforts to boost up the Livestock Industry in the country.

However, because there is a limited local market and the soya beans are not used in the local diet, it may be difficult to hold the interest of the farmers in soya bean production. If soya beans were a perennial crop, then the initial incentives and interest could attract a lot of farmers and hold the initial plantation for some time, even if the interest was to wane. Annual crops suffer from desertion unless the mechanized inputs are readily available. This has been the case with groundnuts and sesame seed promotion.

SHEA NUTS:

Shea nuts grow wild in the Norther and Upper Regions of the country. The Ghana Cocoa Marketing Board (GCMB) is the only organized body in the country whose declared purchases of shea nuts for export can be quantified to give us a guide about the size of the crop for a year.

The Board has been exporting shea kernels to the United Kingdom, Sweden, the Federal Republic of Germany, Japan, Belgium and Luxembourg. We give below the declared purchases for the past several years.

SHEA NUT PURCHASES FOR 1972/73 TO 1976/77

CROP YEAR	PURCHASE IN TONS
1972/73	2,490
1973/74	380
1974/75	670
1975/76	9,074
1976/77	1,836

The above figures only represent the shea nuts delivered to the Cocoa Marketing Board. The data does not take account of shea nuts consumed locally in the form of shea-butter and the quantity smuggled out of the country annually.

The fluctuation in the data is explained by the fact that the quantity of shea nut plants growing wild and the quantity of shea nuts produced is dependent not only on the weather conditions but also on the willingness of the local people to collect the nuts for sale. We suspect that more than twice the amount of shea nuts sold to the GCMB is smuggled out of the country.

We shall illustrate how the smugglers operate so successfully and how the GCMB is not really pushing to buy more shea nuts for export by some price figures from GCMB:

		Cedis
(a)	Price offered by smugglers	480.00 per ton
(b)	Producer price paid by GCMB	224.00 per ton
(c)	Price obtainable on world market for shea nut	150.00 per ton
(d)	Port store value of shea nut	335.00 per ton

This figure includes producer price, buying allowance paid to the Board's agents, and the cost of transportation of shea nuts from the Northern Region to port warehouses.

We have to note that the smuggler is willing to pay more than the world market price. The prices are at the official rate of exchange. In the mathematics of the smuggler, the official 150 Cedis was equivalent to £75.7 sterling. If the smuggler earned the pounds sterling officially, he could exchange the pounds at the rate of 20 Cedis per pound on the black market. Thus the pounds converted to Cedis would amount to 1,514.00 Cedis. The smuggler could probably earn more money by bring in scarce goods to sell at speculative prices. Hence it was profitable to pay an apparent high price (compared to GCMB) for the shea nuts.

In order to combat the activities of smugglers, it has been proposed that CMB should rent the wild trees from the local Chief, or station Patrol Wardens at vantage points to protect the nuts from collection by unauthorized persons, and organize hired labour to collect the shea nuts for CMB.

The shea nuts will be processed into shea-butter for local consumption and export by T.F.C.C.

GENERAL CONCLUSIONS:

The general overview of the individual oilseeds and their special problems of acquisition can be crystallized into some general problems for which some solutions can be suggested. The general problems can be summarized as follows:-

(a) Competition from middlemen, traditional extractors and smugglers;

(b) Poor prices paid by the factories due to the limitations imposed by the Prices and Incomes Board on the selling price of finished goods;

(c) Lack of an organized market;

(d) Lack of incentives for the production or collection of the oilseeds. This is linked also to the pricing problem;

(e) Poor transportation and infrastructure;

(f) Unnecessary competition between the factories themselves and inter-ministerial rivalries;

(g) Lack of co-ordination in the activities of the oilseed industry as a whole.

RECOMMENDATIONS:

It has been suggested by particular oilseed producers that special Boards be created to cater for specific oilseeds and their promotion. We do not subscribe to the view of specialized Boards because of inter-Board rivalries and the impediments they pose for each other. A multiplicity of Boards does not encourage co-operation and effective co-ordination between the activities of the raw materials producers and that of the processers and may even lead to duplication of effort. The oilseed industry is potentially a very big one and has a lot of room for growth.

For proper planning, organization, execution and control, we suggest the creation of a single Oil and Fats Industry Board to supercede all existing Boards in the industry. The Board shall be charged with the following responsibilities and functions:

1. The organization of farmers within areas to be accuired by the Government (for the Board) for the cultivation of specific oilseeds;

2. The accuisition and allocation of land for oilseed cultivation by the Board;

3. Supply of planting materials, fertilizer, farm machinery, maintenance workshops and any other necessary inputs to farmers;

4. The provision of extension services and the arrangement of credit facilities for the farmers and work in co-operation with the Commercial and Specialized Banks in the oilseed cultivation and processing sector;

5. Hold the sole agency responsible for the purchase and prompt payment for all oilseeds (except cocoa) produced in the country from the farm gate;

6. Distribution of imported or locally-purchased oilseeds to the various local factories for processing, the export of surplus oilseeds and the regulation of prices of both raw materials and finished goods;

7. Co-ordinate and supervise the establishment of new processing facilities;

8. Undertake research and development of oilseeds, their cultivation and processing and the further utilization of the oils into soap, paints, detergents, etc., and the cake into Animal Feed;

9. Act as the link between the country and foreign institutions in the transfer of technology and financial aid for the development of the oils and fats industry as a whole;

It is envisaged that the Board will operate along the lines of the G.C.M.B. free of all Ministerial encumbrances.

The advantages are quite numerous and obvious. The existence of an Oils and Fats Industry Board would ensure:-

1. Effective planning, organization, execution and control of the industry;

2. Fair prices and ensure equitable transfer of income from the urban, middle and upper income population (who consume the refined oils, soaps, etc.) to the rural, less affluent farmers and thus raise the living standards of the rural population;

3. An ongoing effective system of procuring the farmers' products at the farm gate at an attractive price so as to generate confidence in the farmer to increase his output knowing that his products will not be left to rot;

4. Ensure that the factories are adequately supplied with raw materials without the procurement headaches. This would be

a tremendous saving to the factories in terms of reducing their procurement manpower, machinery, and other overhead expenses. Reducing some of the duplicate overheads from the factories could lead to lower prices for the finished goods;

5. Effective processing techniques which could save a lot of money for the country in terms of savings in edible oil and cakes lost through the processing techniques of traditional extractors. The traditional extractors could be redeployed in the profitable cultivation of the oilseeds;

6. Stricter control of exports which could also combat the activities of smugglers. Once the large quantities of oilseeds, presently scattered, are re-collected by a central body and fed to the various factories, surplus seeds could be released for export to compete with the smuggler-price in neighbouring countries.

TRANSFER OF TECHNOLOGY:

Now to turn out attention to the transfer of technology. Raw materials availability and acquisition has presented a bottleneck in the transfer of technology. It will require the existence of the proposed Board to open up the path to new technological inputs. For example, most of the oil mills in the country are of the mechanical expeller type.

We believe there are enough raw materials in the country to feed and sustain a small solvent extraction plant, if only the raw materials market can be effectively stabilized. In trying to stabilize the raw materials base of the oils and fats industry and ensure effective oil extraction, we have to consider the displacement of rural manpower: what happens to the traditional extractors who will be affected by the effort to feed the mechanical processors with the bulk of the raw materials.

The Board, by its overall control of the industry, could solve the problem by the introduction of modern technology. The Board could decide to replace the low pressure expeller at T.F.C.C. with a solvent extraction plant. The pre-press expellers would be retained at T.F.C.C. The combination of the pre-press expellers and the solvent extraction plant would offer T.F.C.C. the flexibility to process both high and low bearing seeds. The six high pressure expellers from T.F.C.C. could be redeployed to rural areas where they

could be used to process directly edible oil such as groundnuts, copra or palm kernels.

The establishment of these small mechanical mills in rural areas could ameliorate the manpower displacement problems by offering new employment to the affected traditional extractors who could be grouped into co-operatives to man the new factories.

The addition of the solvent extraction plant would also offer T.F.C.C. the opportunity to purchase and further process the expeller cakes from the mechanical mills as well as the traditional extractors.

This arrangement has several advantages.

1. T.F.C.C. could increase its raw materials base indirectly by processing the cakes which would normally be thrown away by traditional extractors;

2. Recover otherwise lost oil from the cakes and also produce low fat meals for Animal Feed compounding;

3. Allow traditional extractors to stay in business and earn more income from their cake sales. This will also forestall the possible displacement of rural manpower;

4. The deployment of efficient mechanical mills to rural areas could help generate more interest on the part of the farmers to produce more raw materials once they know there is a good and ready market nearby.

This is only an example of how technological transfer could be beneficial to the Ghanaian economy. However, there can be no infusion of new technology until we have set up a Control Board to take the necessary bold and planned decisions.

At the moment, T.F.F.C. alone cannot undertake to organize the raw materials cultivation and marketing in order to implement its plan to add a solvent extraction plant. It does not have the necessary resources.

Until the Government makes a concerted effort to harness and husband the oils and fats industry through a central agency, the development of appropriate technology and inception of technological transfer will be haphazard and benefit no one in the long run.

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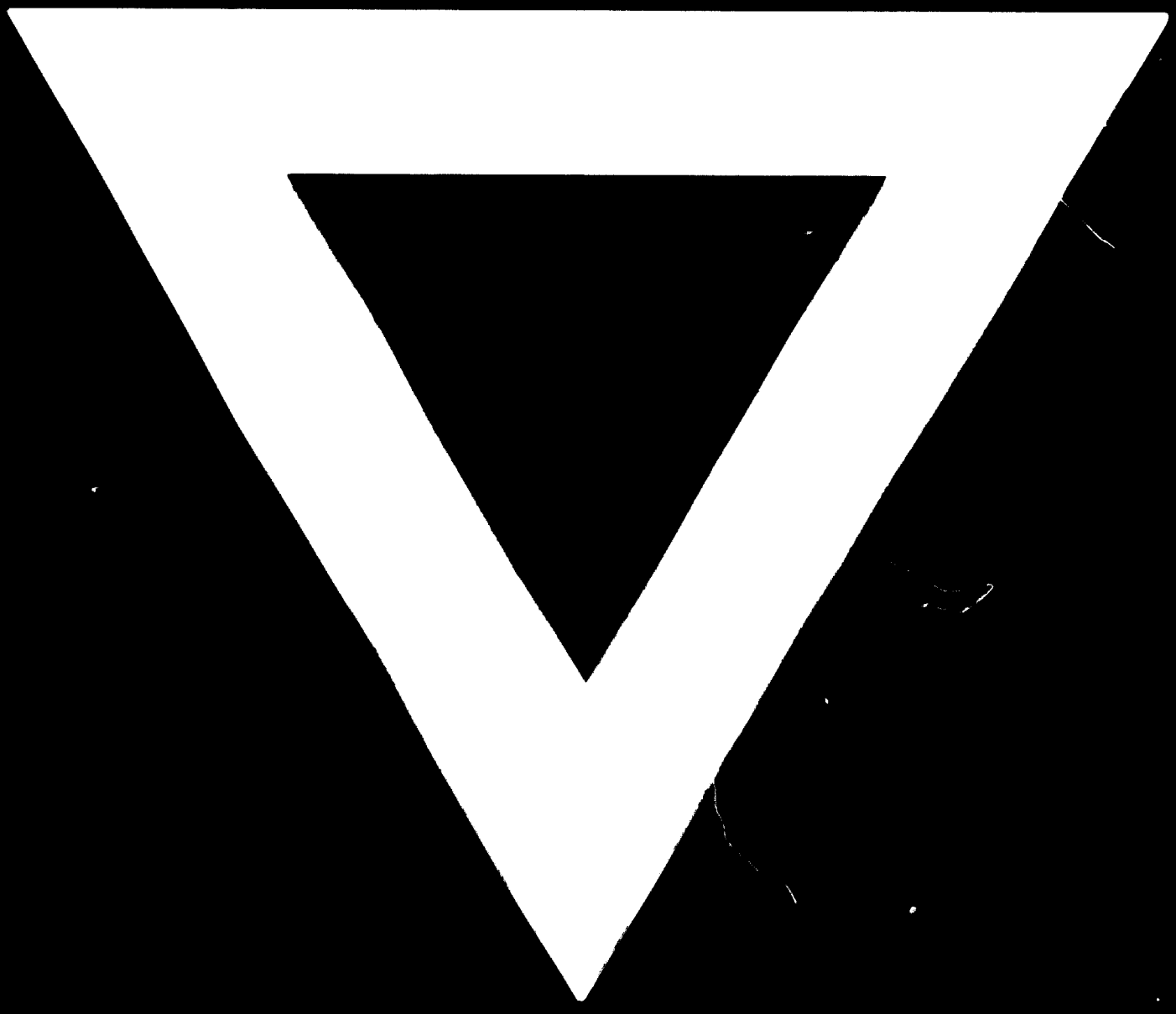

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