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FOOD INDUSTRIES IN GHANA

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FOOD RESEARCH INSTITUTE

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In any country, whether industrialized or developing, the food industries form an important sector of the economy. The food industries may be regarded as the section of industry which applies science and engineering to the processing, preservation, storage and distribution of food. They are directly related to agriculture which in the broadest sense includes crop and animal husbandry, wild life and fisheries.

The food industries and population growth

The growth of the food industries has always been in response to a public need to provide adequate and better food to feed rising populations and meet the demands of increasing urbanization. It has been said by Professor Aylward that "in the history of European and other countries, there are many records of famine, but in the last century the classical black spots in nutrition were not in the country-side (among agricultural workers, however, poor) but rather in the large metropolitan cities among workers divorced from the land and forced to purchase all their food."

In Ghana we are under pressure to increase food supplies to meet the needs of an exploding population. Ten years ago we numbered 6.7 million. Now we are nearly 2 million more. Accra our capital city has grown over the last 30 years from a population of 70,000 people to a city of over 633,000 people. There is a great need not only to increase the total amount of food available but to provide well packaged, fresh and processed convenience foods of high quality to suit, especially in the towns, changes taking place in food habits, in working hours, in earnings and in housing conditions. Already a large part of the Ghanaian's diet is made up of convenience foods such as bread and biscuits from wheat flour, various dairy products, sugar, soft drinks, beer and a variety of vegetable and animal foods canned or preserved in other ways. Many of these foods are imported, thus constituting a serious drain on our foreign exchange earnings which are now very short.

To eliminate food imports and increase total food supplies, it is desirable to give every encouragement to the growth of food industries, supported of course by indigenous agriculture.

Economic and Social Effects and Inter-relations with Agriculture

The development of the food industries has direct effect on the social life and nutritional well being of the people. Its effect on agricultural development and the economy in general needs no emphasis.

Through improved storage, preservation, preparation of special types of foods, transportation and distribution, seasonal food shortages are avoided, there is an increase in variety, the total amount of food available is increased and there is a general improvement in nutritional health. Men as well as women are liberated from time-consuming operations to have more time for other gainful employments.

A successful food enterprise promotes increased agricultural production by ensuring markets for the farmer's produce. We all remember the public discussion that took place in the local press last year with regard to the establishment of Lonrho Pito Factory and its effect on supplies of local cereals. Fears were expressed about a possible adverse effect of the Factory on the local production of maize, sorghum and rice. But far from being an impediment to the development of agriculture, this factory, which will need large quantities of cereals to process, should provide the incentives for increased production of the raw materials which should bring increased prosperity to the farmer.

In this regard I would like to emphasise the point that in the development of the food industries in Ghana, those industries which are based on local agricultural production should be given priority. This is because apart from increasing agricultural production, agro-based industries can stimulate agricultural change and give a general boost to the economy. With the processing factory providing a sure market, agricultural production can be realistically planned to produce the raw materials of the right quality in adequate quantities for processing to give end products acceptable to the consumer.

The establishment of food factories such as wheaten flour mills and breweries to produce beer which depend heavily on imported raw materials for their operation may be considered as being of little benefit to agricultural development quite apart from the fact that they constitute a drain on foreign exchange however reduced in scale. They are only of benefit in the sense that they provide employment for local people.

Other economic benefits which may be derived from the establishment of food industries include employment opportunities in the food processing and supporting industries; improvement

in the balance of payments through reduction of food imports, import substitution or expansion of exports and the utilization of by-products such as establishment of feed mills as off-shoots of the oil industry.

Employment Opportunities

The establishment of food industries in rural areas provides great agricultural and industrial employment possibilities in these areas especially where the factories are located in production areas. The demand for agricultural raw materials result in increased employment on farms and the work in the factory gives additional employment to people. Certainly one way of preventing the drift from the villages to the towns is to establish food industries in the rural areas.

There are certain characteristic features of the food industry which make the industry particularly suitable for rural areas. It is possible in the food industry to invest a relatively small amount of capital to provide significant levels of employment. This is because the functions of weighing, cleaning, trimming, grading, sorting, cutting, slicing and

coring in a food factory may be performed quite satisfactorily by hand labour without unduly increasing costs.

Improvement in the balance of payment

As mentioned above, a considerable part of the food we eat in Ghana is imported. Food imports rose from £G10 million in 1951 to £G26 million in 1961. In 1964 the value of food imports fell to £G20 million due to import restrictions. In 1968 imported food amounted to NØ42 million. This was made up mainly of protein foods including processed animal products such as meat, fish, dairy products and live animals (cattle, sheep, goats, poultry) (NØ15 million), Sugar (NØ8.2 million) and wheat flour and cereal products (NØ16.6 million). The rest included chocolate products, vegetables and fruit preparations. If domestic production could be increased for these imported foods, a great saving in foreign exchange would be achieved.

Sugar

Already two sugar factories have been established at Kommenda and Asutuare but these have as yet made no significant impact on the foreign exchange situation. During 1966 and 1967

the two factories between them produced only 3,600 tons of sugar although they were expected to produce 36,000 tons. Total consumption of sugar in Ghana in 1967 was 63,000 tons. So even with the factories operating at full capacity, Ghana can only produce about 39% of its present requirements.

The Heavy Capital Investments already made and the potentiality of the industry should make us view with concern the very low level of production. It is a combined problem of management, finance and agricultural production. This is one area of the food industries where substantial benefits such as outlined above would accrue to the economy if properly financed and managed. It has even been said by competent sugar technologists that by making a few modest improvements to the factory at Asutuare alone, it should be possible to increase national sugar production from 36,000 tons to 53,000 tons a year nearly 84% of our present needs.

Animal Products

Of the imported processed meat products, corned beef constitutes about 50%, while pork products make up about 36% and miscellaneous meat products about 14%. Owing to the

importance of corned beef in our meat imports a factory was established by the former Government at Bolgatanga for the purpose of producing corned beef. The factory has unfortunately not been very successful in its operations because it has had to rely on high-cost imported slaughter stock which has made it impossible for it to produce corned beef at a profit.

Another meat factory in Accra owned by a private company has concerned itself with the production of processed pork products such as sausages and bacon. These foods however, attract only expatriates and Ghanaians in the high income groups. It would appear however that the expatriate demand for this kind of meat product is high and there is every promise that production will increase. But greater development of the pork products industry will depend on whether Ghanaians take to eating processed pork on the same scale as they consume corned beef. There is some resistance to pork among Ghanaians.

Ghanaians usually prefer fresh meat and a way out of our dependence on imported meat and meat products would be to increase domestic production of livestock initially for the fresh meat trade. Owing to difficulties arising from endemic diseases and unfavourable environmental conditions, a concerted effort will be required from farmers, animal breeders and

husbandry men and veterinary officers backed by financial support from the Government and the Banks. Except poultry, the livestock population in Ghana is rather small; about half a million cattle and 700,000 each of sheep and goats. Pigs number about 250,000. Significant increases in numbers will be rather slow and may take a generation.

Initially we should concentrate on the poultry industry which lends itself to rapid development. Over the last few years the poultry industry has made significant progress. From 1961 to 1967 the total chicken population increased from 170 thousand to 6 million. Imports of poultry products has drastically fallen. The National Hatchery at Winneba with an ultimate capacity of up to 10 million day-old chicks should play an important part in the further development of the poultry industry and should make it possible to produce eggs and table birds at reasonable cost.

The establishment of a dressing and packing plant in the country would also assist the development of the industry. The factor militating against increased poultry production and widespread use of poultry is the high cost of production which arises from the high cost of feed. This in turn is a reflection

of the very high prices being paid for maize. The remedy lies in increasing maize production to bring prices down.

With the exception of a little amount of milk produced on experimental farms in Ghana all the milk and milk products consumed in Ghana are imported. These include sterilized, condensed, evaporated, dried and powdered milk, canned or cartoned fresh milk and also butter, cheeses and curds. A local factory produces reconstituted milk with imported skim milk. This is gaining increased acceptance and production is consequently rising.

Although experiments are being carried out by the Ministry of Agriculture and the University of Ghana to establish a local dairy industry, Ghana will for a long time to come depend on imports for the dairy products for which its people have developed great taste. Milk and milk products provide proteins of high biological value which are short in Ghana. Imports of milk and milk products may therefore continue to be allowed until the country can supply good quantities of locally produced milk. Butter may, however, be eliminated from our imports by the production of local

margarine using locally produced vegetable oils. The decision of Lever Brothers to produce margarine in Ghana should be welcome news.

Fish in Ghana is obtained from both marine and inland water sources. Development of the Volta lake and other inland water fisheries and large scale investments in fishing harbours, long and short range fishing fleets and in cold storage facilities resulted in rapid increases in the quantity of fish caught. Production rose from 43,000 tons in 1961 to 100,000 tons in 1967. During the same period fish imports including cured, canned and frozen fish declined from 46,000 tons to 24,000 tons.

It has not been possible to eliminate fish imports completely. This has been attributed to under utilization of the full capacities of the fishing fleets and lack of facilities to produce such popular processed fish products as sardines and stock fish.

The fishing fleets should be assisted to operate at their maximum capacities by ensuring that spare parts are

available. The sardine canning line in the Drevici Interlocking Complex should also be commissioned as early as possible if we are to derive any benefits from the large investments made to establish it.

It is estimated that 70-80% of the fish caught in Ghana is smoked. This is done by the women traditional smokers and is capable of producing a good product able to store for long periods especially if hot smoking is adopted. Improvements in handling and methods of smoking are, however, necessary to produce uniform products of high quality and cut down costs. An attempt has been made by the Food Research Institute to do this with a group of women smokers operating at Chorkor beach. The initial results are encouraging. The establishment of a fish smoking factory should, however, be seriously considered. Owing to the desirability of bringing about greater improvements in the quality of a product widely eaten in Ghana. The Russians started to build one in Tema. A decision should be taken as early as possible with regard to whether this could be used.

Wheat and Cereal Products

Ghana has two wheat flour mills designed to cater for the entire flour requirements of the country. Practically all the wheat flour imported into or produced in Ghana is used in making bread, a convenience exotic food which is fast becoming an established part of Ghanaian diets. The flour milling industry depends entirely on the importation of raw materials which cannot be grown with any measure of success in the country. Bread is one of the least essential items in the Ghanaian diet. It can be substituted with kenkey (maize product) or rice which compare favourably in nutrients and are cheaper.

A wheat flour milling industry cannot be considered as essential to the development of the country's economy and it should be given no more official support than it deserves.

If we still want to eat bread, it should be possible to produce this from composite flours made from maize, guinea corn, millet, cassava, sweet potato, yam. The technology for this kind of bread has been developed. It is possible to produce highly nutritious loaves of bread from these food crops. In the Food Research Institute we have produced a "gari bread" in which gari replaces part of the wheat flour. Bread may, however, be produced entirely from flours other than wheat flour.

Fruit and Vegetable Preparations

Fruit and vegetable preparations with the single exception of tomato puree are already low on the import list. Given adequate supplies of raw materials and financial backing, the fruit and vegetable industry should have little difficulty in producing enough products to satisfy the local market and have a surplus for export. Judging from what has been done in the Ivory Coast, our next door neighbour, it should be possible for Ghana to expand its production of pineapple, citrus, banana, coffee, palm oil, onions, tomatoes and other tropical fruit and vegetable products not only in the conventional forms but also in new and varied attractive forms.

New Food Products

There is a world of opportunity for new products which may attract attention in the world market for their novelty. We have in Africa an array of food crops unknown in many parts of the world. The challenge that faces food technology is to develop new products from these foods and improve upon traditional ones made from them.

In Ghana, the food industries have hitherto tended to concentrate on the processing of foods such as bread, biscuits, ice cream, filled milk, fruit juices, jams, marmalades, puree, beer, soft drinks, all of them food products peculiar to the western world. These products have invariably had limited markets which have prevented rapid growth of the industry. What is needed to stimulate the quick development of the food industries is the production and marketing of traditional Ghanaian products presented as convenience foods of high quality, attractively packaged. Food industries that are based on foods with wide acceptance have a greater chance of making an impact on the general economy than those that depend on food items served infrequently or eaten by only a few people. It should be possible to produce kenkey, fufu, gari, soups, ready prepared foods and the traditional beverages on a large scale in a factory. This has already been done for pito. The Food Research Institute is now trying to do it for fufu and other traditional foods.

Raw Material Difficulties:

One of the greatest problems facing the food industries in Ghana is the availability of raw materials. Food factories have stood idle for weeks for lack of raw materials and have as a result been unable to operate at a profit. Some of the factories have in fact, owing to lack of raw materials, never started operation although they have been completed for a number of years. The existence of a processing factory in a place will not on its own stimulate agricultural production unless this is organized.

The processing factories in Ghana would have to plan their own supply of raw materials. This may be done by the factory establishing its own farms or plantations as has been done by the palm oil factories or by contracting with farmers and producer co-operatives, or by a combination of both as has been done by the sugar factory.

The total quantities and the quality of raw materials are very important to the processor who must induce the primary producer to grow adequate quantities of crops whose quality is suitable for processing to give end products of the type required by the consumer.