THE AGRIBUSINESS SYSTEM OF GHANA

THE CASE OF CASSAVA/CASSAVA PRODUCTS

by

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PRODUCT CHARACTERISTICS

Cassava (Manihot Esculenta), a root tuber, is a staple in most Ghanaian diets, especially for those in the Middle belt of the country. Those in the Northern and Coastal savanah belts have cereals as their major staples. Cassava, however, is cultivated through-out the country because it is drought resistant, tolelates fairly poor soil condition, it is relatively easy to cultivate and has low production costs.

INPUTS FOR RURAL PRODUCTION

Since most areas in the country have good climatic and soil conditions of cassava cultivation, the important inputs are cutlasses, hoes and cassava cuttings of suitable variety:- usually quick- maturing and good cooking quality varieties.

Normally the source of such cuttings are old farms. But of late (1976) the Ministry of Agriculture embarked on a cassava development project whereby plots of land are cultivated with suitable varieties for distribution to farmers. Such plots are located at Duayaw Nkwanta in the Brong Ahafo, Ebi-Ayinesi and at Simpa in the Western Region, and Abokobi, Omankorpe, Sege in the Greater Accra Regions.

Varieties cultivated include the Ankra type, Trinidad I and II, Busum Nsia and Okimkum etc.

RURAL PRODUCTION

Like most agricultural produce in Ghana production is largely in the hands of small scale rural farmers. The size of farms usually range between small handkerchief sized or garden plots to 3 ha. farms. Cassava is mostly intercropped with other crops - maize in particular. This is done in order to exploit the insurance value of cassava against the often unreliable rainfall pattern. Maize can fail due to erratic weather at critical growing periods. Cassava is virtually proof against these problems. The average yield per hectare is about 9,000kg. It is about the only crop in Ghana whose production has been at the near-self-sufficiency level of about 300 MT until of late.

The intense drought conditions that began in 1980., has resulted in a decline in production and has resulted in the use of otherwise high toxic varieties eg. Bankye Hene, which are normally not used for food, because of the higher cyanide content.

Table : 1980 Production Targets for Cassava in the various Regions of Ghana

REGION	AREA (HECTARES	PRODUCTION (TONNE)
Greater Accra	5,000	50,000
Volta	110,000	1080,000
Eastern	46,500	460,000
Central	52,500	530,000
Western	50,500	500,000
Ashanti	93,000	930,000
Brong Ahafo	47,000	456,000
Northern	500	5,000
Upper	-	-
TOTAL	405,000	4,500,000

Source: Action Plan for Agric. Production.

The above table portrays the production targets for Cassava for the year 1980. Figures are based on the potential of the various regions. The Volta Region is the most important producing region, followed by the Ashanti. There is no statistical data as to the exact number of hectares. under cassava cultivation, the above table however, is a fairly good indicator. These exist co-operative associations amongs farmers -referred to as nnoboa groups all over the country who bind together to enable them obtain credit, perform certain farm operations, particularly weeding and sometimes market produce.

Production problem include diseases as cassava mosaic, pest infestation lack of labour for weeding and harvesting especially during dry seasons, when the soil becomes difficult to work.

MANUFACTURING

Among the root crops and tubers cultivated in Ghana, the most important in terms of processing is cassava. The others, yam, cocoyam, sweet potatoes, water yam etc are usually consumed without much processing Conservation estimates indicate that about 30% of cassava produced in Ghana is processed into gari. The bulk of the gari processed is done by traditional small-scale processors located mostly in the producing villages and also at the urban centres. A few mechanized medium scale plants have been set up by private individuals, utilizing intermediate scale equipment most of which were locally fabricated (cassava grater, cassava press etc). By 1980 a total of 10 root crops processing plants, satisfying Ministry of Industries Criteria had been approved for establishment. Out of these only two(2) operational. These are the Universal Cassava Products located at Asin Foso in the Central Region, using imported machinery and the Roots Processing Co. Ltd., at Dobro on the Accra-Nsawam Road.

Gari is basically produced for the domestic market, though unspecified amounts are smuggled into the neighbouring countries. Other cassava products done by small scale processors are kokonte, fufu ampesi, tapioca, yakeyeke (steamed cassava flour) cassava biscuits, fried balls etc.

The export market for cassava/cassava products is under developed. There are exports of small quantities of cassava chips for animal feed formulation and starch for textile manufacturing to some EEC cluntries.

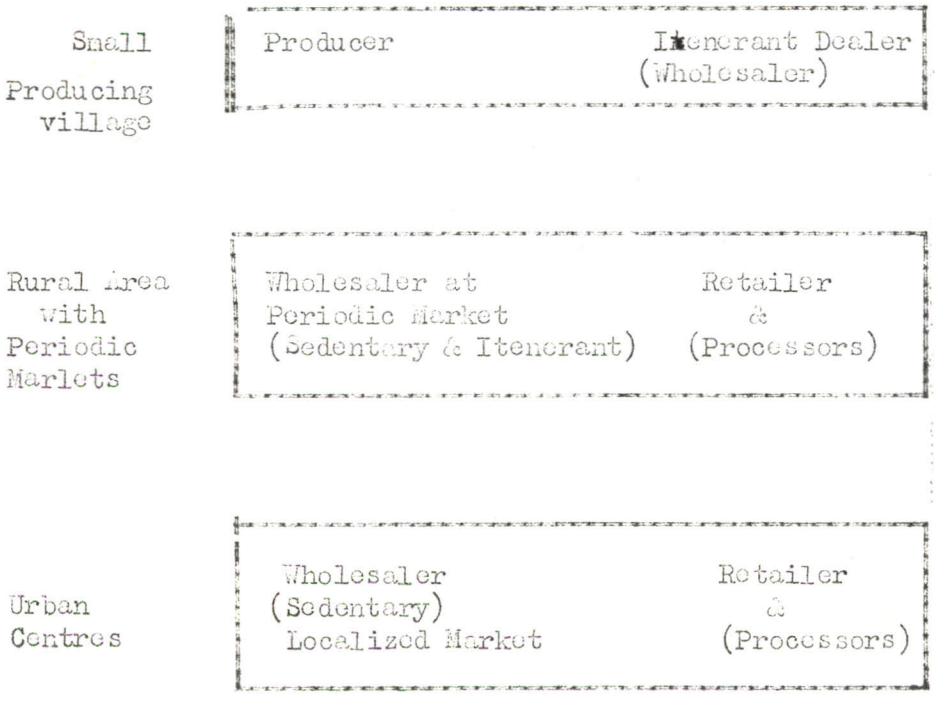
Most of the cassava products for the domestic market mentioned are mainly eaten with soups, stews and sauces. The tender leaves of the cassava plant are also prepared in the same way as spinach or leafy green vegetables for making stews.

Marketing Structure of the manufactured Products

The marketing channel of cassava products (used as food) other than gari and kokonte is very simple indeed. It is limited to the retail system. It involves the processors (usually at chop bars or restaurant) of fufu, ampesi, biscuits, fried balb, yakayaka, roasted cassava, akpler (cassava dough plus maize dough) etc. who are invariably retailers/selling direct to the consumers.

On the other hand, the marketing structure for gari and kokonte is closely akin to the marketing channels of most foodstuffs in Ghana, as illustrated in the following diagram.

Diagram for simplified Marketing Channel of foodstuffs in Ghana



* The of the arrow is an indicator of the flow of business.

As illustrated above the marketing channel begins with the producer, this case the gari/kokonte processors selling the commodity usually in sackful (maxi) to itenorant dealers who roam the processing villages, sometimes from house to house (eg. Koluedor in Ada) to concentrate the produce and then cart purchases on trucks to a central point. Usually the destination is a periodic market at the rural area, or an urban localized market. Here the dealer sells to sedentary wholesalers some of whom are organised into commodity (market) associations who in turn sell to retailers. The retail system include numerous house stores, kiosks, hawkers, roadside depending on the supply situation of cassava. The retailer finally sells to the sonsumer in containers of various dimensions. ie. American tin (olonka) margirine tin, milk tin etc.) In general concentration of the product occurs at the producing villages, equalization at the periodic markets and dispersion at the large urban consuming centres, Accra, Kumasi etc.

The bottlenecks of the channel include the use of absolute technology and equipment that increase unit cost of processing. Another constraint is the unhygienic processing method for the preparation of 'kokonte'. The poor drying techniques of the cassava chips result in high mould growth, which makes the prepared stuff black instead of light brown in colour. This may lead to aflatoxin infection. There is also the problem of poor storability of the cassava. Sometimes carting of product is done by hand loading because of transport difficulties.

New Food Product

Work is being done for the technological development of new products at the Food Research Institute. These include instant fufu, enriched and fortified cassava product, composite flour formulation and development of glucose - syrup by the hydrolysis of starch from cassava mesh pressed during gari processing.

Demen Evolution

Studies carried out at the FRI indicates that as late as the 1960's cassava and its products were regarded as food for poor families or for the low income group of workers. But by 1978, when the food budget in many Ghanaian homes rose to over 300% of their monthly incomes cassava and its products evolved into a middle/high income food. Gari has consistently been popular amongest students.

Prospective Demand

Cassava/cassava products would for sometime be important food products in the domestic markets. However, its uses is expected to increase, assuming increases in cereal production, and hence energy as an important non-traditional foreign exchange earner, particularly when the recent self-sufficiency levels of production in further improved. This would be in line with the observed general trend towards a decline in per caput demand for cassava/cassava products as food and a projected increase in the food use and industrial uses of cassava and its products. For instance demand for cassava for animal feed is expected to rise in France, Federal Republic of Germany, U.K. etc. as it is already replacing barley in the formulation of pig feed. As high as 30% of the ration is cassava. Cassava could also substitute for maize but must be supplemented with other food that are rich in protein and vitamin. Market for starch could also be exploited as it is used in the textile, foundary, paper coating industries, Sythetic polyners however present a serious threat to starch products but are noted to be still expensive.