
THE PRESIDENTIAL SPECIAL INITIATIVE ON CASSAVA-STARCH: ITS NATURE, SCOPE, AND PROSPECTS FOR RURAL TRANSFORMATION

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ABSTRACT

This paper examines a locally bred state initiative (PSI on Cassava-Starch) and the potential possibilities for transforming rural Ghana with the initiative as a platform. In doing this, it also examines the nature and scope of the initiative. Using both quantitative and qualitative data gathering techniques, primary data was gathered from two major cassava producing districts in Ghana, the analyses of which revealed an inherent potential for the continuous operation of the initiative, in spite of many teething problems associated with the implementation of the initiative. It is this potential that this study suggests could be tapped and channeled into an effective and well coordinated rural development effort. The study concludes that whilst the implementation of the PSI on cassava-starch has been plagued with several problems, the increasing global demand for cassava-starch provides a basis for Ghana to focus attention on the development of a properly coordinated cassava-starch industry. Since peasant farmers in rural farming communities are the main producers of fresh cassava, the development of the industry would provide a guaranteed market for their produce, improve their farm incomes, facilitate the provision of social amenities in the producing communities, and thereby improve their socio-economic livelihoods.

Keywords: Rural Transformation, Peasant Farmers, Globalization, State Intervention, Depeasantization.

INTRODUCTION

One of the many problems confronting the economy of Ghana is the dominance of peasant agricultural practices. The failure of various governments since independence to change this trend has worsened the plight of peasant farmers who are caught in a web of illiteracy, use of rudimentary tools in production, labour intensive agricultural practices and the drudgery that goes with it, lack of capital and inadequate provision of social amenities like good drinking water, electricity, good roads, health facilities, schools, etc. The need for state initiatives that will transform the peasant mode of agriculture in order to improve peasant farmers' earnings and their socio-economic livelihood is therefore a pressing one. This means not only improving their farm practices but also developing sales channels for their produce. Since the local market alone cannot bring about the expected improvement, the export opportunity offered by globalization becomes an important avenue for a developing country like Ghana.

According to Asamoah (1996), the potential possibilities of capital formation inherent in subsistence agriculture that eventually gave way to peasant agriculture have not been exploited by successive post-independent governments in Ghana, resulting in stagnation of the rural productive forces and making the process of depeasantization ineffective. For him, even though "the peasant production unit is generally hard working, the labour invested in productive activity is not enough. Low input of productive labour combined with primitive

implements keeps productivity low" (Asamoah, 1996:176). Thus, there is the need for this potential to be harnessed, processed and fixed into a tangible form before it can be released for and used to initiate additional production.

Against this background, the present study aims at examining the Presidential Special Initiative on Cassava-Starch with the view of highlighting the extent to which the initiative could be used to facilitate rural transformation in Ghana. Specifically, the study examines peasant farmers' commitment to the cassava-starch initiative, the basis of which its prospect for rural transformation has been discussed.

THEORETICAL UNDERPINNING

Harriss (1992:17-18), identifies three (3) main theoretical approaches to the understanding or conceptualization of agrarian change. The first is the Systems Approach, which seeks to explain the inter-relationships between environmental, technological and demographic factors within farming systems. A classic example is Taussig's (1992) study of farming systems in the Cauca Valley in Columbia, which showed that given the ecological condition of the area, a peasant farming system rather than a 'modern' system introduced by development agencies is favoured because the 'modern' system is less efficient ecologically. Again, Foster (1965) suggests that peasant societies are stable societies and that the behaviour of peasants can be understood in relation to the technology at their disposal and the material conditions of their lives. If the conditions of life change, then the peasant society will consequently undergo change and vice-versa. The problem with the Systems Approach is the over-emphasis on the systemic quality of the peasant community and hence can only explain change as a result of external force acting upon the peasant community (Harriss, 1992:20).

The second is the Decision-Making Models Approach, which is cast in the neo-classical mould and examines the allocation of resources on the farm and the farmers' responses to markets and innovations. It emphasizes the power of individuals to make choices among alternatives and to change their own societies. Studies that adopt this approach explain the ways in which farmers have responded to modern agricultural technology in terms of their access to resources and the environment in which they make production decisions, or in terms of their attitudes toward and relationships with bureaucracy (Harriss, 1992:21). According to Apthorpe (1977), studies that adopt this approach are good at explaining the success or failure of individuals within the system, but the system itself is usually left out of the analysis.

The Structural/Historical Approach is the third and it attempts to come to grips with the process of production itself, the inter-relationships between people and the natural environment, the relationships of people in the production process, the forms of ownership and its ecological impact, exchange and the sale of inputs and marketing of products within the agrarian economy. A major historical theme in this approach is the incorporation of peasant producers into mainstream economy, by which instead of producing mainly for their use, peasant producers begin to produce for exchange, and come to depend upon purchases for some of the things they require. The Structural/Historical Approach is therefore concerned with relationships between expanding capitalism and peasant modes of production. As noted

by Harriss (1992:22), "... the linking up of rural household producers with capitalist production, in various ways, is perhaps the dominant process of change in contemporary agrarian societies".

Relevant to this study are both the Decision-Making Models Approach and the Structural/Historical Approach. The Decision-Making Models Approach fits the context of the peasant farmers' response to the PSI on cassava-starch and the innovations in fresh cassava cultivation that come with participation in the initiative. The Structural/Historical Approach is also considered appropriate because the study considers the larger process of globalization (the export of starch produced from fresh cassava).

RURAL FARM PRODUCERS AND STATE EFFORTS AT RURAL TRANSFORMATION

Yudelman (1976) observes that the rural agricultural sector, constituted mainly by peasant producers, contributes to development first by its traditional role of producing to feed the farm family. Secondly, by producing surpluses of food for the non-agricultural population and hence requires that the local market be efficiently linked to "distant consumers by transport, intermediate markets, storage, processing where necessary and final marketing" (Yudelman, 1976:33). Moreover, peasant producers produce raw materials for industries, either as traditional export crops or as domestic raw materials for local industries. Any effort to develop sales opportunities for the produce of peasant farmers will certainly ensure the effective contribution of peasant agricultural producers to development.

Haizel (1994:13-14) observes that since the 1960's when most African countries gained independence, their agricultural production has grown steadily worse. This is because African countries still find it necessary to promote few export crops to the neglect of their local food crops. The issue is further worsened by the fact that most African governments lack the political will-power to make the agricultural sector succeed and hence agricultural production in Africa and for that matter Ghana is dominated by scattered small-scale traditional farmers. Even where modern small scale farming exists, it remains distinctive and seen as an intrusion rather than a blend with the traditional farming prevailing around them. Hence, the traditional system remains predominantly illiterate and not easy to reach with modern ideas, operate much smaller units and have chronic and inherent handicap of scale, thereby discouraging their easy mechanization.

Ghana's Poverty Reduction Strategy II (GPRS II) envisions the rationalization and modernization of agriculture and agro-based/processing industry because it recognizes that majority of Ghana's working population continue to depend on farming activities for their livelihood. Significantly however, they cultivate small plots of land and hence there can be no significant progress in raising the average incomes of Ghanaians as a whole without significant improvements in the productive regime of the many small scale peasant farmers. It further recognizes that the means for securing increases in production should range from improving the equipments and tools with which small scale peasant farmers earn their living, to intermediate stages of applying scientific and technological improvements in the farming practices of medium scale agriculturists, and going up to the most sophisticated systems of

irrigation and high value horticultural production. The implementation of these measures would enhance the process of capital formation among peasant farm producers, a precondition for reaching middle income status. Hence, the PSI on cassava-starch initiative is seen as one of the many initiatives that could feed this transformation.

To find a strategic position in the emerging global economy requires a developing country like Ghana to expand its economic base beyond traditional export commodities, to also include non-traditional commodities and processed and semi processed agricultural products. This calls for heavy investment in infrastructure, especially in 'resource communities' – rural agricultural communities (Loboda, Rog, and Tykkylainen, 1998:97). Development in these resource communities is more pressing because it is larger than the urban sector with rural activities being the basis of national income generation. The lack of strong interventions in the rural sector allows funds, both fiscal and financial, to move from low-return sectors to high-return sectors. This must be halted through rural interventions that will make the rural sector a high-returns sector in order to attract more capital (Huang, Rozzelle and Wang, 2006). Unless this important investment is made, the rural peasant farming population risks becoming globally detached (Amin, 1997). Thus, if developing countries and Ghana in particular fail to take initiatives toward finding a significant niche in the global export economy, it will become unimportant in the affairs of the world.

Several attempts have been made at rural development in Ghana by various governments since independence in 1957. However, the evidence available shows that not much has been achieved in terms of transforming social and economic formations in rural Ghana. The rural population is still involved in small scale peasant economy, characterized by primitive or outmoded technology, low productivity, low income, post harvest losses, and unreliable price mechanisms. Given the fact that the rural peasant farm population is larger than the urban population, it behoves on policy makers to realize that the eventual economic take-off of the economy of Ghana will, to a large extent, depend on a well planned and systematic depeasantization of agriculture (Asamoah, 2001:x). Referring to rural farm producers in Ghana, Haizel (1994:22) notes that, "by their numbers alone ... they have a legitimate claim to our attention. Rather than disregarding them as a drag, we must make them the basis of all our agricultural development effort in Africa. If bigness is the order of the day, then we must organize them for it".

Moreover, 80 percent of poverty in Ghana is estimated to be in the rural areas and concentrated among subsistence farmers (Government of Ghana, 2003). No serious national development policy can ignore rural development as an essential component. In this regard, this study perceives the PSI on cassava-starch as an initiative that has the potential of improving the incomes of peasant farm producers in the study areas. This is against the background of Asamoah's (2001) observation that the peasant economy of Ghana since colonial times has largely remained intact with cutlass and hoe, still the major farm implements. In the view of Tonah (2006:70), peasant farming has become synonymous with traditionalism, unwillingness to change, inefficiency and a general backward form of land use and production. Modern services like roads, electricity, water and health are woefully under-

supplied and rural folks in Ghana still cry for these facilities. For instance in four out of the six communities involved in this study, there is no electricity, no health centre and no pipe borne water. It is against this background that Asamoah (2001:83) calls for grassroots mobilization of resources towards industrialization based on "a well conceived industrialization programme, which could dovetail into development and demands in the agricultural sector and vice-versa".

METHODOLOGICAL CONSIDERATION

The study was conducted in the Awutu-Effutu-Senya and Atebubu-Amantin districts of the Central and Brong Ahafo regions respectively. These were purposively selected because they are among the highest cassava producing districts in Ghana. The Awutu-Effutu Senya District in particular hosts the first ever state of the art cassava-processing plant, whilst in the Atebubu Amantin District, efforts were being made to build another state of the art cassava processing factory. The study employed both quantitative and qualitative data collection techniques in the form of a survey and in-depth interviews with key informants. A sample of 120 peasant farmers for the survey and 11 key informants for the in-depth interviews was selected, using both probability and non probability sampling techniques in a multi-stage sampling approach. Two sets of structured questionnaires were designed and administered to peasant farmers in six selected communities, three in each of the two selected districts. Unstructured interview guides were also designed for the in-depth interviews with key informants. The raw data gathered were edited, coded and organized into frequency tables before analyzing them.

BACKGROUND TO THE IMPLEMENTATION OF THE PSI ON CASSAVA-STARCH

Ghana's development policy document of 2005 (Growth and Poverty Reduction Strategy II) states that; "... no significant progress can be made in raising the average real incomes of Ghanaians as a whole without significant improvements in the productivity of the small scale farmer" (Ghana National Development Planning Commission, 2005:viii). The PSI on cassava-starch was thus launched by the government of the New Patriotic Party government led by His Excellency President John Agyekum Kufuor in the year 2001, soon after assumption of office on January 7, 2001. Its aim was to transform fresh cassava, a staple crop, into starch mainly for export. The choice of cassava is due to the fact that about 70% of Ghanaian farmers cultivate the crop either as a main crop or in combination with others. Cassava also accounts for about 22 percent of the country's agricultural GDP, and it is easy to cultivate compared to other major crops (Ministry of Food and Agriculture, 2006). Cassava cultivation is highly labour-intensive and hence has a potential for job creation (Sam, 2001). Besides being a major source of food, starch is a multibillion dollar business worldwide and it is finding application in several industries. Since most parts of West Africa, and for that matter Ghana, have a huge potential in the cultivation of cassava, there is the need to leverage this potential against the background that cassava-starch has prospects in the global cassava-starch economy.

THE NATURE AND SCOPE OF THE PSI ON CASSAVA-STARCH

The PSI on cassava-starch is an integrated action programme for cassava-starch production and export in Ghana with the vision of developing an integrated cassava-starch industry in Ghana using fresh cassava (PSI Secretariat, 2006). It is one of many measures aimed at diversifying the economy of Ghana in order to reduce the over reliance on cocoa, gold and timber as main export earners for Ghana. The PSI on cassava-starch can therefore be viewed as a strategic intervention of the state not only to improve the production of fresh cassava and therefore improve the income of the many producers of the crop, but also to develop new pillars of growth of the economy. It is also an attempt to radically transform the economy of Ghana from over reliance on few export commodities to a diversified commodities exporter, and increase foreign exchange earnings. To achieve this, the PSI on cassava-starch has the intention of developing an integrated starch industry that will serve as a key plank for Ghana's industrial development. It is meant to contribute significantly to Ghana's export earning (earn at least \$100.0 million export revenue from cassava starch by 2010) and serve as a major vehicle for job creation for about 50,000 rural farmers in rural communities. It also targets fifty per cent (50%) female participation (PSI on Cassava-Starch Coordinator, 2006).

The choice of cassava for the production of starch was due to the fact that it is a domestic based resource that will be readily available for processing into starch; it has a huge export potential and is cultivated by about seventy-five percent (75%) of farmers in Ghana as a main crop or in combination with other crops. It also contributes about twenty percent (20%) of agricultural Gross Domestic Product (Ministry of Food and Agriculture, 2006). The cultivation of cassava is also relatively easier and the farmers already have the skills for its cultivation. Again, the promotion of cassava as a cash crop will have a multiplier effect on the economy of Ghana because export earnings from starch produced from cassava will help in the development of the economy as a whole and also provide ready market for cassava produced by rural farmers, thereby increasing their income and socio-economic well-being.

The production of cassava is concentrated in the hands of numerous small holder farmers located mostly in the rural communities in Ghana. The market of cassava can be divided into two categories, the traditional food-oriented market and the new emerging market for industrially processed cassava. The vast quantity of cassava grown in Ghana is processed and sold through traditional market channels which are fairly well known. It is the industrial market that remains untapped and needs to be developed. It is important to note that the processing plant required for the transformation of fresh cassava into industrial food grade starch is a technology based plant that will introduce high-tech into the cassava-starch industry in Ghana. The overall effect is that Ghana will be in a position to add value to an indigenous staple crop (cassava in this case) and take advantage of the huge global demand for cassava-starch which stood at about 222 million metric tonnes in 2002 and was expected to grow further (ISO, 2005).

Starch is one of the most important plant products to man. It is an essential component of food providing a large proportion of the daily calorific intake. In West Africa, cassava flour

and 'garf (roasted cassava granules) are consumed in large quantities. Cassava is also used to produce starch for industrial use and other products used in processed food. Starch is generally a multibillion dollar business worldwide and it is finding application in several industries.

IMPLEMENTATION STRATEGY

To ensure effective implementation of the PSI on cassava starch, the government anticipated two levels of implementation, that is, the project stage and the business stage. A Secretariat for PSI on cassava-starch was established to play the role of facilitation and intervention. The Secretariat is headed by a coordinator who is to coordinate activities of the industry and reports to the Minister responsible for the development of the private sector (PSI on Cassava-Starch Coordinator, 2006). As a facilitator, the secretariat engages in feasibility studies to identify potential areas for the establishment of cassava processing plants and which areas have enough fresh cassava for processing. The secretariat helps in the mobilization of farmers into Farmer Based Organizations (FBO's) in the identified areas, helps in the acquisition of land for the establishment of nucleus farms, and seeks investment funds for equipments and construction of processing plants. It also ensures the provision of agricultural extension services to participating farmers (FBO's) and facilitates the provision of infrastructure like electricity, water and roads to the identified areas in order to encourage investment into the areas.

Other functions of the Secretariat include the supply of suitable planting materials that will guarantee high yields, conduct of baseline studies to ascertain living standards in the project areas in order to have bases for assessment, promotion of research and development in collaboration with institutions like the Centre for Scientific and Industrial Research, Ghana Atomic Energy Commission, the Universities, Ghana Standards Board, Food and Drugs Board, and the International Starch Institute of Denmark. The Secretariat also trains key personnel for the industry and develops new markets (local and foreign) for starch produced in Ghana. These interventions are crucial in view of the fact that the cassava-starch industry is new in Ghana and hence requires mechanisms that will ensure its stability and profitability in order to attract private capital investments to grow the industry into an internationally recognized one.

At the project stage, the plan was to establish a model fresh cassava processing plant/factory which would serve as a training ground for the starch industry in Ghana, from where private investors would learn and carry the project into the business stage. The Secretariat facilitated the establishment of a model cassava processing plant at Bawjiase in the Awutu-Effutu-Senya District of the Central Region of Ghana – Ayensu Starch Company Limited. Funds for the project were provided by the Ghana Commercial Bank (GCB), the Agric Development Bank (ADB) and the National Investment Bank (NIB), which by agreement own the plant in trust for the participating farmers in the area. By this arrangement, the farmers in the area who were organized into Farmer Based Organizations (FBO's) cultivate cassava and supply fresh cassava to the plant at an agreed rate per tonne. The factory then processed the cassava into starch for export. The earning from this operation is used to run the factory and

to pay off the investment made by the banks. Subsequently, the farmers are to become shareholders at the business stage of implementation (PSI on Cassava-Starch Coordinator, 2006).

By this arrangement, private investors were to be encouraged to establish similar plants in other identified areas across the country with the support of the PSI Secretariat. Thus at the project stage, the government was expected to demonstrate the viability of the industry and encourage private investors to carry it on to other districts. The expectation was that at the business stage, the viability of the industry would have been established and private capital attracted to the industry. It has not been the intention of government or the state to invest directly into cassava processing plants, but rather to encourage private investors – both local and foreign, to take advantage of the business potential in the cassava-starch industry in Ghana to invest in the industry. Thus the processing plants to be established were expected to be privately owned, with the state maintaining its key roles of facilitation and intervention (PSI on Cassava-Starch Coordinator, 2006).

The PSI Secretariat has gone through the project stage of implementation, where through the model plant at Bawjiase, the viability of the industry has been established. Two new plants were in the offing to be established in the Brong Ahafo and Volta Regions and it was expected that many more plants will be established in other districts and regions. There is every indication that Ghana could be a significant cassava market player in the global cassava-starch industry because climate, market, raw materials, and processing techniques are known and available. To put Ghana in the global context, the country needs to organize and provide a supportive framework that encourages investments and well functioning private and public market institutions. This should be done together with the design of an agribusiness policy that is targeted at taking advantage of domestic and international market opportunities to sustain increased agricultural output and raise rural incomes. In order to be competitive on the supply side, the key players need to reduce the cost of cassava production and farm gate processing by introducing machinery, agro inputs and improved varieties. Government and key players in the cassava sub-sector need to encourage increased and sustained volumes of output of consistent quality and standards. On the market (demand) side, private sector investments are required for a number of small and medium scale industries to meet user needs and demands of sophisticated local buyers, thereby gaining scale efficiencies that will enable the country serve the global markets. Competitiveness in the global context can only be achieved through government support in the form of intensified investments in public infrastructure such as electricity, port infrastructure, roads and railway transport.

LOOKING FORWARD - PROSPECTS FOR RURAL DEVELOPMENT

The framework of the PSI on cassava-starch shows that peasant farm producers were to play the key role of providing the raw material (fresh cassava) for the processing factories. This means that peasant farmers were going to be an integral part of the expected cassava-starch industry to be developed in Ghana. It is on the basis of this that the farmers were mobilized into local, zonal, district and national associations of cassava producers. They were to be

given technical support in terms of extension services, provided with high yielding cassava variety and assisted financially to maintain their farms to ensure that the crop grows well on their farms. All farmers who signed on to the initiative were expected to have improved farm practices, yield and farm income from cassava cultivation. With these benefits, what was required to ensure the success of the initiative was the commitment not only on the part of policy makers but also the peasant farmers in the areas where the initiative was implemented. It is to secure the commitment of the multitude of peasant farmers who become members of the cassava growers association at the various levels that promises of support were given during consultations prior to the establishment of the processing factories. Tonah (2006:80) suggests that:

a factory that is dependent on a large number of smallholder farmers for its supply of raw materials has to promote close collaboration and trust with these farmers. For a fruitful relationship between a processing factory and the numerous smallholder out-growers, there is the need to organize the out-growers into active cooperatives, provide extension support, credit and training to farmers and provide a field-based system that can guarantee the necessary quality control among rural producers.

Where this fruitful relationship is established, it will culminate in the willingness of the farmers to supply their fresh cassava to the processing factory. Since the PSI on cassava-starch has only been implemented fully in the Awutu-Effutu-Senya District, the sixty (60) respondents from the District were selected from among members of the cassava farmers' association in the three selected communities (Penim, Fianko and Ofaada). Since all of them belonged to the association, they were asked to mention the name of the association. Table I presents their responses. Interestingly, only 33.3 percent could mention the name of the association (Ayensu Cassava Farmers' Association – ACFA), 41.7 percent had forgotten the name of the association, 20.0 percent said they did not know the name of the association, and 5.0 percent said the association had no name.

Table I: Respondents' Recall of Name of Farmers' Association (Awutu-Effutu-Senya District)

<i>Name of Association</i>	<i>Name of Locality/Frequency</i>			<i>Total (Freq)</i>	<i>Total (%age)</i>
	<i>Penim (freq)</i>	<i>Fianko (Freq)</i>	<i>Ofaada (Freq)</i>		
None	1	2	0	3	5.0
I don't know	4	8	0	12	20.0
I have forgotten	12	6	7	25	41.7
Ayensu Cassava Farmers' Association	3	4	13	20	33.3
Total	20	20	20	60	100.0

It is only in Ofaada where 13 out of the 20 respondents could mention the name of the association. This may be because there is a member of the board of the Ayensu Starch Company (ASCo) living there and therefore the association seems to be active. Many of the respondents in the district have either forgotten the name of the association or did not know it. This situation is a reflection of the fact that many of the associations have been dormant

for a long time due to problems encountered in the implementation of the initiative in the district. This situation confirms the observation by Tonah (2006:78) that “the enthusiasm that characterized these farmers’ associations at the initial stages of the project no longer exists. Members of the local farmers’ association no longer attend meetings while some have stopped cultivating the high yielding cassava variety meant for the ASCo factory”.

Since the inability of the respondents to mention the name of their association could not be the sole basis of assessing their commitment to the cassava initiative, they were asked whether they had ever sold their fresh cassava to the ASCo factory. Out of the 60 respondents, only 51.7 percent indicated they had sold their fresh cassava to the factory before. The rest 48.3 percent had never sold to the factory. Again, it is 19 out of the 20 respondents from Ofaada who contribute most to the 51.7 percent who had ever sold to the factory. Moreover, 14 out of the 19 from Ofaada revealed that they sold all their produce to the factory. Two (2) out of the 7 from Fianko said they sold all their produce and none of the 5 from Penim sold all their produce. The main reason for not selling to the ASCo factory was the low price offered per tonne by the factory. Other reasons include delays in the payment for supplies made to the factory and difficulties in transporting produce to the factory. Many of the farmers preferred to sell on the open market or process their produce into ‘*agbelema*’ (cassava dough) or ‘*gari*’ (roasted cassava granules) that have ready market in the nearby markets at Bawjiase and Kasoa and where they could get ready money for goods sold.

Even though at the time of conducting this study, the ASCo factory had suspended operations, information gathered from the factory and among the farmers revealed that the factory was making preparation to re-open and farmers were anxiously waiting for the re-opening. The respondents were therefore asked whether they intended to sell their fresh cassava to the ASCo factory if it resumed operation. The study showed that 49 out of the 60 respondents (representing 81.7%) were still willing to sell to the factory even though many had reasons for not selling to the factory prior to the suspension of its operations. Eleven (11) respondents (representing 18.3%) said they would not sell their fresh cassava to the factory even though they belonged to the association. Reasons for their unwillingness to sell their fresh cassava to the ASCo factory include the low price offered by the factory per tonne of cassava, delays in payment for supplies to the factory, failure of the factory to honour promises made to the farmers before the commencement of operations, difficulty in transporting cassava from the farms to the factory etc. In spite of these challenges, many of the respondents still want to sell to the factory because they perceive that there are benefits for doing that. The critical issue to them is for the factory to re-open and resume operations.

Viewed against the background that many of the respondents have never sold their fresh cassava to the factory for reasons mentioned earlier, their willingness now to supply the factory, when it resumes operations, means they still believe the operation of the factory will bring some benefits to them. The management of ASCo acknowledges the many teething problems that confront the cassava-starch initiative in the Awutu-Effutu-Senya District and are working towards addressing them before resuming operations. A hint from the PSI Secretariat shows that private investors are being sought to take over the factory at

Bawjiase, inject more capital into the factory, and operate it as a private business entity. It is therefore important that the problems of low price, delayed payments, haulage delays etc. are addressed adequately. Moreover, the willingness to supply the ASCo factory when it resumed operations was on the condition that the factory increased its price per tonne from ₵150,000.00 (GH₵15.00) to ₵350,000.00 (GH₵35.00) prior to the suspension of operations. The farmers measure the size of their farm by 'ropes' ('*ahoma*' in local parlance) and ten ropes make up an acre. According to official sources, a 'rope' of land cultivated could yield between 1 - 2 tonnes of cassava depending on the fertility of the soil and adherence to good agronomic practices. In principle, at the current price of ₵350,000.00 (or GH₵35.00), a cassava farmer that cultivates an acre of land could earn between ₵3,500,000.00 - ₵7,000,000.00 (or GH₵350.00 – GH₵700.00) a year. They also recognize that the factory offers a guaranteed market for their fresh cassava, which will ensure proper planning of their expenditure and farming activities because they will be in a position to determine how much they wish to earn from their farming to meet their needs. Table II summarizes reasons for respondents' willingness to sell fresh cassava to the ASCo factory.

Table II: Respondents' Reasons for Willingness to Continue Selling to Cassava Processing Factory in the Awutu-Effutu-Senya District

Reasons for Willingness to continue selling fresh cassava to the processing company when it resumes operations	Freq	%age
On condition that price is right	28	46.7
Guaranteed price	10	16.7
Reduction of work load in processing <i>gari</i> and cassava dough	8	13.3
To get financial support from factory	7	11.7
The get bulk payments	5	8.3
To help factory do well in the area	8	13.3
Because of agreement with the factory	10	16.7
Total (N = 60)	76	126.7

If farmers in the Awutu-Effutu-Senya District are able to espouse these benefits, there is no doubt that they know what they are about and therefore will not accept any practice on the part of the factory that will not enable them achieve their goals. In spite of the teething problems confronting the ASCo factory, there still seems to be some amount of goodwill on the part of the farmers and it is necessary for the factory to tap into the goodwill.

In the Atebubu-Amantin District, where the cassava processing factory has not yet been built, this study sought to know if respondents would be willing to cultivate cassava for the factory when it is eventually built and operations commenced. All the sixty (60) respondents said they would produce and supply the proposed factory. Their reasons are presented in Table III.

Table III: Respondents’ Reasons for Willingness to Cultivate Cassava for the Proposed Processing Factory in the Atebubu-Amantin District

Reasons for wanting to cultivate cassava for proposed processing factory when it is built	Freq	%age
To increase income	52	86.7
Learn improved farming techniques	16	26.7
To ensure guaranteed market	13	21.7
Help develop the nation	10	16.7
Help develop the district	8	13.3
To get financial support	4	6.7
To help the factory succeed	4	6.7
To have a guaranteed price	2	3.3
Help create jobs for the youth	1	1.7
Total (N = 60)	110	183.5

Because most farmers are poor and get very little from their toils, they always look forward to opportunities for improving their earnings. Since their main source of income is farming (cultivation), any avenue that could guarantee them higher earning is acceptable to them. Their expectations are that the proposed cassava processing factory in the district will buy the cassava supplies at a good price and guarantee them regular and guaranteed income. Again, because they will supply in bulk, they will be paid in bulk. As a result, the main reason for the willingness to cultivate cassava for the proposed factory is to increase their farm income. Fifty-two (52) representing 86.7 percent of the respondents mentioned increased income as one of their reasons for willingness to cultivate cassava to supply the proposed factory. The opportunity for improving farming technique is the second important reason given by the respondents. Those respondents who have seen the new cassava variety demonstration/multiplication farms in the district seem to have noticed the mode of planting and treatment and therefore are expecting to be introduced to these new ideas.

Unlike the Awutu-Effutu-Senya District where no farmer uses the tractor to plough the land before planting, most farmers in the Atebubu-Amantin District employ the services of a tractor to plough their lands, especially for cultivating crops like groundnuts and cassava. The expectation of these farmers therefore is that the introduction of the cassava-starch initiative in the district will bring improvement in the cultivation of cassava in terms of land preparation and treatment, planting techniques and farm maintenance. These improvements will lead to increased output and where there is ready market and a guaranteed price, there will be a resultant increased farm income and a reduction in the drudgery of peeling the cassava, drying for days and packing for sale on the local market. There is also a sense of patriotism in the reasons given since 10 respondents (representing 16.7%) want to cultivate cassava for the factory because they want to help in the development of the nation and eight (8), representing 13.3 percent want to help develop the district.

Whilst all the 60 respondents from the Atebubu-Amantin District are willing to supply fresh cassava to the proposed factory, 49 out of the 60 respondents from the Awutu-Effutu-Senya District intend to supply the ASCo factory in the district. Perhaps, the initial problems encountered by the factory in the Awutu-Effutu-Senya District have made eleven (11) of the respondents unwilling to supply cassava to the factory. This notwithstanding, the available data suggest that there is commitment on the part of peasant farmers towards the PSI on cassava-starch initiative in both districts.

CONCLUSION

Based on the findings of this study, it is concluded that the increasing global demand for cassava-starch makes the development of a cassava-starch industry in Ghana a venture that is worth pursuing. This is against the background that the crop does well in most parts of Ghana and cultivated by most farmers either as a main crop or in combination with other crops. Care must however be taken to ensure that cassava for industrial use is not promoted at the expense of cassava as a staple food. Ghana is endowed with skill, land, climate and labour for the development of a cassava-starch industry. The PSI on cassava-starch is a step in the right direction, but much still needs to be done. Moreover, within the general law of capitalist agricultural development, the development of a high technology cassava-starch industry cannot be sustained solely with small holder farmers. There is the need to consider creating large nucleus farms that would employ modern technology in cassava cultivation, whilst re-organizing small holder farm plots into corporative farms or community farms that could also be supported with modern technology. Even though the private sector has not shown much interest in the cassava-starch industry, and indeed the model factory has not been able to operate successfully, the potential for the development of the cassava-starch industry in Ghana still exists. What is required is re-appraisal of the cassava-starch initiative that will focus on the best way to ensure availability of raw material in collaboration with peasant farm producers. This also means establishing and strengthening of Farmer Based Organizations in all cassava producing districts in Ghana.

RECOMMENDATIONS

In the light of the above conclusions, the study recommends that whilst the PSI on cassava-starch focuses on the export market, there is the need to develop a local market for industrial starch. This will not only save the country scarce foreign exchange but also help the cassava-starch industry to grow and thereby improve the socio-economic livelihood of peasant producers of fresh cassava. To become competitive in the global market, there is the need to maintain high quality standard of both fresh cassava and processed starch. This should be achieved through effective extension services that will ensure that farmers employ appropriate agronomic practices.

The need for further studies cannot be overstated. Since the cassava-starch industry in Ghana is in its incubating stage, its potential is still unfolding. When the industry is fully developed, there will be the need to conduct a similar study in other producing districts and adopt the commodity chain approach to assess the ways in which peasant cassava farmers are linked to mainstream economy. An appreciation of the chain will help policy makers take

the necessary steps to make cassava production and its processing a lucrative venture in order to attract more investments. The present study has however established the potential Ghana has in developing a cassava-starch industry.

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