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*GRADUATE SCHOOL OF DEVELOPMENT STUDIES*

# Investigation of the conditions that favour agro-processing initiatives in a small farming community in Jamaica

*A research paper presented by*

Kibibi Maia Thomas

*(Jamaica)*

In Partial Fulfillment of the Requirements for Obtaining the Degree of

MASTER OF ARTS IN DEVELOPMENT STUDIES

*Specialisation*

(LOCAL AND REGIONAL DEVELOPMENT)

Members of the Examining Committee

Dr. Joao Guimaraes
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Investigation of the conditions that favour agro-processing initiatives in a small farming community in Jamaica

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## *List of Abbreviations*

| | |
|---|---|
| CBO | Community Based Organization |
| CIDA | Canadian International Development Agency |
| CPEC | Caribbean Human Resource Development Program for Economic Competitiveness |
| EEC | European Economic Community |
| EFJ | Environmental Foundation of Jamaica |
| EU | European Union |
| FAO | Food and Agriculture Organization (of the United Nations) |
| GDP | Gross Domestic Product |
| GNP | Gross National Product |
| JAMPRO | Jamaica Promotions |
| JAS | Jamaica Agricultural Society |
| JBI | Jamaica Bauxite Institute |
| JCRR | Sino-American Joint Commission on Rural Reconstruction |
| NARE | Non-Agricultural Rural Employment |
| NGO | Non-Governmental Organization |
| NICS | Newly Industrializing Countries |
| NOVIB | Netherlands Organization for International Development Co-operation |
| OECS | Organization of the Eastern Caribbean States |
| PIOJ | Planning Institute of Jamaica |
| RADA | Rural Agricultural Development Authority |
| RNFE | Rural Non-Farm Employment |
| SCR | Scientific Research Council |
| SDC | Social Development Commission |
| USAID | United States Aid Agency |
| UWI | University of the West Indies |
| WTO | World Trade Organization |

# CHAPTER ONE

# INTRODUCTION

The small farmer is a very valuable contributor to the Jamaican economy as well as the people's welfare. Lately his community has been trying to add value to farm produce by taking it beyond its primary stage to the secondary. The effort is pragmatic because it may increase their returns while allowing farmers to remain within the sector where their knowledge is most relevant: agriculture. However, agro-processing has not enjoyed much success in the small farming community to date. This paper is an exploratory study of the way in which agro-processing may be better poised to succeed. Thus our title: *'Investigation of the conditions that favour agro-processing initiatives in a small farming community in Jamaica'.*

## *The Context*

Jamaica's main agricultural products account for 7.4% of the country's Gross Domestic Product (GDP) and consist mostly of sugarcane, bananas, coffee, citrus, potatoes, vegetables, poultry and milk. Industry and services account for the rest of GDP at 35.5% and 57.4% respectively at 1994 estimates[1]. Despite its small contribution to GDP, agriculture remains a vital part of the economy as it provides not only foreign exchange and food for domestic consumption, but also employment for 25% of the labour force.

The greater proportion of farm labour is located in the small-scale sector. This is the sector catering for domestic consumption, producing fruits, yam, potatoes, dasheen, plantain, cassava, peas and beans, pumpkin and a variety of tropical vegetables, among others. An estimated 92% of all farmers belong to the small farming sector, defined as

[1] www.jsdnp.org.jm/agricJA.htm

comprising land holdings from 0.1 to 25 acres. According to the 1996 Agricultural Census, the total area in agricultural land is currently 1,123,732 acres (449,493 hectares). Jamaica entered a proactive period of trade liberalization in the early 1990s. The World Bank records the recent economic developments thus:

> "A comprehensive reform program initiated in late 1989 accelerated the pace of reforms. Its main objectives were to lower inflation, enhance international competitiveness, improve public finances, maintain an adequate level of international reserves, and increase per capita incomes. This reform program was supported by the multilateral institutions and a 1992 Paris Club debt rescheduling arrangement. By mid-1995, the government had achieved most of its economic objectives. The government budget has been in surplus during the last four years ... Inflation declined to 1 percent per month. The foreign exchange regime was liberalized. Import tariffs are now in the range of 5 to 35 percent, and most quantitative restrictions and trade monopolies have been eliminated. The largest sugar company, the national airline, and the telecommunications company have been sold to private investors. The railway and the petroleum refining company have been prepared for divestment. Three privately financed power generation projects are moving forward."[2]

Briefly this quote gives us the broad decision making view from the top. The agriculture sector has also had a share of trade liberalization. As a consequence the local market has been penetrated by more agricultural imports than before. These imports are sold cheaper than their locally grown counterparts, and have therefore led to declining sales for local producers of which small farmer make up the bulk.

## *The Problem*

The Planning Institute of Jamaica (PIOJ) conducted a study entitled Impact of International Agricultural Trade Liberalization on Jamaica. Using scenario analysis, the

[2] Site www.worldbank.org/html/extdr/offrep/lac/jm2.htm

study shows that with total liberalization, there would be a 49% increase in the price of produce that Jamaica imports (1989 as base year). The calculations were done for the following produce: rice, maize, wheat, soy bean, beef and veal, mutton and goat, chicken, milk powder, butter, cheese and curd. The 49% increase translates into an extra US$ 61.5 million that would have to be paid as trading partners (mainly Canada, USA, Japan and the EU) cut back on their subsidies to agriculture. If this US$ 61.5 million were not offset by gains in exports, there would then be a negative impact on the balance of payments.

> "Under trade liberalization Jamaica could lose its preferential treatment for sugar and banana since in some cases the basis for this preferential treatment is the subsidy paid to producers of similar products in the importing countries. For example the preferential treatment of sugar in the UK is related to the subsidized price paid to beet producers under the Common Agricultural Policy."
> (PIOJ 1992:51)

Without the preferential price for sugar, Jamaica stands to lose approximately 36% of the value of its export revenue from this commodity. For bananas, it would be a 48% reduction.

This situation describes the plight of Jamaica's traditional crops, however, it may be taken as the general situation of agriculture on a whole. The 2002 World Development Indicators support this depiction. By looking at the percentages for agricultural exports and imports as a percentage of merchandise exports and imports in figure 1 below, we can see that with in the first ten years of trade liberalization, that is 1990 to 2000, there was a decline in agricultural raw material export.

Figure 1. Table Showing Jamaica's Raw Material Import and Export as Percentages of Total Merchandise

| **Jamaica** | **1990** | **2000** |
|---|---|---|
| Agricultural raw materials exports (% of merchandise exports) | 0.36% | 0.16% |
| Agricultural raw materials imports (% of merchandise imports) | 1.2% | 1.5% |

*2002 World Development Indicators CD-ROM*

In its forecast concerning the country's earnings, the Planning Institute advocates for improvements to export.

> "In terms of the aggregate, Jamaica is therefore expected to suffer reduction in its export earnings given complete trade liberalization unless there is substantive improvement in the volume of export." (PIOJ 1992:54)

The small farmers are a part of this web and in fact, are experiencing the losses associated with not being competitive. As a result, the sector has seen many farmers exit agriculture in search of other more lucrative activities. Between 1990 and 1998, employment in agriculture as a percentage of total employment fell from 26 to 21 percent (2002 World Development Indicators).

It is increasingly difficult for small farmers to earn a living from farming activities as practiced all along. In a report commissioned by the Netherlands Organization for International Development Co-operation (NOVIB), the following is recorded –

> "All of Jamaica's agriculture is under threat from cheap imports and uncompetitive prices in the international market for exports. Farmers are uncertain of their market and are going out of business. More land is becoming idle." (Black 2001:3)

The above statement is supported by the rural-urban populations trends, as seen in the table below:

Figure 2. Table Showing Jamaica's Rural and Urban Population as Percentages of Total Population 1990 and 1998

| **JAMAICA** | **1990** | **1998** |
|---|---|---|
| Rural population (% of total population) | 48.5 | 44.86 |
| Urban population (% of total population) | 51.5 | 55.14 |

*2002 World Development Indicators CD-ROM*

A four percent change in the ratio of rural to urban populations between 1990 and 1998 is significant. Based on the fact that rural Jamaica carries out agriculture as its main economic activity, it is not a far removed conclusion that the difficulties being faced by small farmers under free trade is one of the factors leading to the rural - urban migration trend observed.

The problem is therefore how small farmers are to survive the new competition (and this, without a fall in their living standards).

There are many coping mechanisms – a few of which are looked at in the following chapter. Examples include increasing the productivity of the land or labour, or diversifying the crops grown, or livestock reared, or techniques used, so as to break into new markets. Farmers may even decide to hire their labour out on larger farms, or on contract with an industry. The coping mechanism this paper will focus on is that of diversifying activities done by the farming community to thereby include agro-processing.

*The research paper investigates how agro-processing may be successful as a coping mechanism against the decline in sales brought about as cheaper foreign suppliers out-compete farmers' produce in local and foreign markets.*

## *Justification*

Although many options exist, agro-industry, depending on how it is pursued, may be one of the more accessible options for small farmers. The United Nations Food and Agriculture Organization (FAO), in The State of Food and Agriculture 1997, defines agro-processing as *"... the subset of manufacturing that processes raw materials and intermediate products derived from the agriculture sector."* (FAO 1997: 222) Agro-processing forms a link between agriculture and industry. In the same report, FAO recognizes the development of agro-industry as forming a balance between the pursuit of a purely industrialization policy on the one hand, and agrarian development on the other.

Bhattacharya (1980) calls for both industry and agriculture to be espoused because they are not mutually exclusive. In reference to development in India, he says –

> "We need continuing advancement in industry, in order to provide agriculture with the inputs and with the markets. We need progress in agriculture in order to provide industry with food, raw materials and again, markets (as well as exports)." (p. 6)

He therefore points to mutual support as the plausible way to proceed. The qualifier given by Bhattacharya is that if any priority is to be placed, it should be placed on the type of industrialization that affords rural transformation, which he identifies in certain rural industrialization programmes undertaken in India.

Agro-industry is therefore viewed as the missing link between the two conventional types of development policy pursuits. Formerly, development writers assumed industry and agriculture to be on opposite ends of a scale, so that the development level of a country

has often been judged according to how much of its resources has been transferred out of agriculture and into industry (the Lewis model of unlimited supply of labour 1954; Rostow's unilinear long-run development 1956 & 1960). Such a development path has often been prescribed for poor countries. Unfortunately, however, it creates other problems, such as large rural-urban migration flows. This then contributes to problems of urban overcrowding, including the spread of diseases and the failure of public services in cities coping with a fast growing population. In the countryside, there has been the converse – a lack of human resources for development and the resultant lagging behind of these areas, as can be seen through development indicators.

It is to avoid such predicaments that governments are gravitating towards rural industrialisation, finding it more suited to the needs of poor countries, since it makes use of abundant raw materials, unskilled labour and takes place in the rural area itself. Ben-david Val (1991: 25) highlights the link between poverty alleviation and rural industrialization, and even entrepreneurship facilitation :

> "For poor farmer households the labour wages may be essential for survival enabling them to continue farming. For others, it provides not only supplemental income, but the security of diversified income sources that enable a measure of entrepreneurial risk-taking in farming."

Rural industrialization, when successful, can therefore provide a supplementary source of income. This may then be a viable way of coping with the present market competition, hence a more secure livelihood in agriculture.

Variants of rural industrialization, along with associated backward and forward linkages, are often classified as the rural non-farm economy or the rural off-farm economy, with the term 'agro-industry' used for distinguishing it from industry and conventional agriculture. Even though it holds the potential to provide employment for those without jobs, as well as an additional source of livelihood for farmers, the benefits are not automatically realised. Ashwani Saith (1992: 1) points out that cases of rural poverty can be found even in the midst of much non-farm activities. He therefore calls for the investigation of

> "... the economic conditions and institutional environment within which specific policy interventions might enable this sector to perform its ascribed developmental and poverty-alleviating functions."

This paper aims to do just that. Two communities in rural Jamaica will be examined: the first with an ongoing agro-processing programme – Walkerswood, and the second attempting to establish an initiative – Cassava River. For Walkerswood, we will ascertain the conditions enabling them to reap the benefits of the programme. Cassava River will then be examined in order to identify possible issues they may face, given the institutional conditions surrounding that community. This is the contribution of this paper to the body of knowledge on the dynamics of the rural non-farm economy. Secondly, now that some groundwork would have been covered, further research is possible that can eventually inform development policy regarding the promotion of Jamaica's agro-industry.

## RESEARCH OBJECTIVE AND QUESTIONS

### *Objective*

- To uncover conditions favourable to the success of agro-processing in the context of Jamaican small farming communities

### *Main Research Question*

What are the enabling conditions for a small farming community to benefit from pursuing off-farm agro-processing?

### *Sub-Research Questions*

*Walkerswood*

- What local economic, social and political conditions exist in Walkerswood that facilitate their project?
- What kind of external support, if any, facilitates the project?

*Cassava River*

- What local economic, social and political conditions exist in Cassava River?

# METHODOLOGY

## *Conceptual Framework*

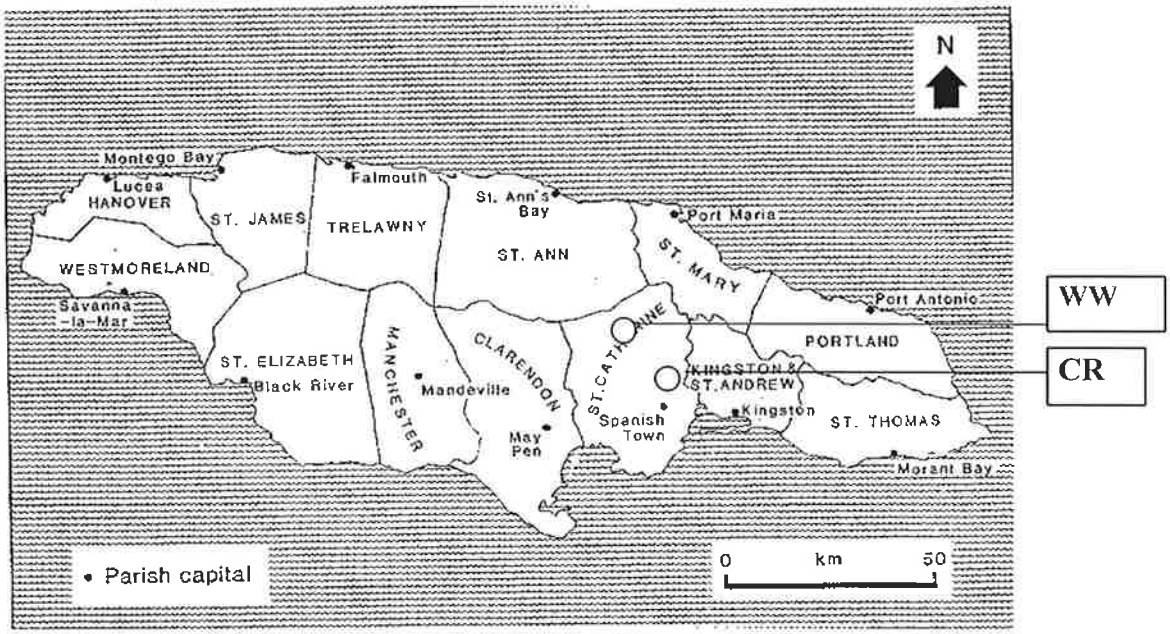
The research paper begins with an introductory chapter that gives the reader the context within which the agro-industry now rises to the fore in much development dialogue as well as the background against which Jamaican small farming communities compete. We look at some other ways in which farmers have been trying to cope with competition in chapter two. The paper then proceeds with a review of literature on agro-industry, using the case of Taiwan to concretise the various claims to its benefits as a development strategy. In the fourth chapter, the data on and discussion of small farming communities in Jamaica, namely Walkerswood and Cassava River, aim to expose the context-specificities of these two areas – thus locating them in the debate about the conditions necessary for agro-industry to be successful. Hence we take a long, but not even exhaustive route, to get to our destination of achieving our main objective, stated again below:

*To uncover the institutional conditions essential to the success of agro-processing in the context of Jamaican small farming communities*

We may identify the units of analysis to be the two communities even though their agro-processing pursuits have formed the focal points and for the collection of the data used.

The locations of the two communities are indicated on the map of Jamaica below.

Figure 3. Map of Jamaica Showing Walkerswood (WW) and Cassava River (CR)




## *Data Collection*

The data on Walkerswood was obtained by way of an email interview with a senior staff member of Walkerswood Caribbean Foods who is also a founding member of the Community Council. A study done on this council by Ian Boxill, a researcher from the University of the West Indies was also used. Further information came from the internet.

The data on Cassava River came from face-to-face, as well as telephone interviews with staff of the Rural Agricultural Development Authority, the Jamaica Agricultural Society, a community member, the Founder of the Cassava River Group and the principal and a teacher of the Cassava River Primary school. Other persons were contacted and gave information useful for gaining a wider scope of the perceptions and norms involved. Photos of Cassava River's products were also taken at the Denbigh Agricultural Showground, an annual exposition of agricultural produce.

Secondary data non-specific to the two communities came from documents from the Planning Institute of Jamaica, annual series of the United Nations Food and Agriculture Organization, the library of the Ministry of Agriculture, the last Agricultural Census of the Statistical Institute of Jamaica, working papers, books, a statistical database, studies, reports, and journals as are listed in the references.

## *Operationalization of the Variables*

Of the economic, political and social conditions to be looked at, the following were identified as the relevant and accessible variables. They have been numbered and operationalized as shown by the indicators below.

**Economic Conditions**

1. Level of security of land tenure
    - *type of land tenure*

2. Livelihood support
    - *number and type of bodies representing livelihood support*

3. Main type of livelihood pursued
    - *proportion of farmers*
    - *proportion of business people (and other classifications)*

4. Level of human resources
    - *average level of formal schooling*
    - *average level of skill*

**Social Factors**

1. Living standards
    - main type of housing
    - proportion of community accessible by road
    - proportion of persons with access to treated water
    - proportion of persons using electricity as main energy source
    - proportion of persons having water closets
    - proportion of persons with telephones

2. Level of community participation
    - number of Community Based Organizations (CBOs)
    - frequency of CBO meetings
    - average community attendance at meetings

3. Community achievements
    - community projects completed
    - existence of community-run facility

4. Gender balance
    - main tasks done by women in community initiatives
    - their access to the returns

5. Public service facilitation
    - distance to nearest post office, police station and fire brigade service
    - existence of street lights on main road

6. Level of farmers' organization
    - existence of farming associations

**Political Factors**

1. Stability of local representation
   - changes in Member of Parliament over the last ten years

2. Political participation
   - attendance at public forum meetings with the Member of Parliament

3. Level of local oversight
   - type of work done by the Parish Council

4. Level of community development activity by the state
   - number of community development officers deployed
   - their activities

5. Existence of partisan politics
   - whether community represents a stronghold for any political party, or other group

6. Level of government intervention
   - number and type of government projects done

## *Note on Subject Terminology*

In reading for this paper various terms have been used when referring to agro-processing. Not all are defined in the same sense but for the purposes of this paper, their differentiation would not affect our discussion. As such, a number of terms have been used as the authors consulted have stated them. This is in order to portray the range of angles from which the same subject is being approached and discussed, and hence to show its centrality. As used in this paper, the following terms are all referring to the same process:

- Agro-processing
- Food Processing
- Agro-industry
- Value-added
- Off-farm processing
- Off-farm employment
- Vertical diversification

## *Scope of the Research Paper*

At any point in time, there are many factors at work that enable processes in the small farming community. This paper will, however, restrict itself to certain economic, social and political conditions acting upon the community efforts at agro-processing. We acknowledge though that there are other factors worth studying such as the impact of charisma within local leadership or the institutional endowments of the region like the prevailing work ethic, to name two examples. These would be of interest and may be quite relevant but would require a much longer period of data collection than the study programme allowed.

Within the discussion on economic, social and political conditions, the factors looked at were the accessible ones – again constrained by time, along with ready data availability. The discussion itself does not delve into the very deep sea of concepts and measurements available in each of the three categories, but stays afloat and fishes out the pertinent and non-technical issues that will help the writer achieve the research objective using straightforward language. An example of an issue excluded that does play a role as an economic factor is the pricing mechanism for agricultural produce.

## *Limitations of the Study*

The limitation of the study can be seen below:

- There is scope for more community data to be used in making the arguments given in the cases of Walkerswood and Cassava River. In the transition made to the current research design from a previous one, this shortage became visible albeit late.

# CHAPTER TWO

# Review: Some Alternative Coping Mechanisms for Small Farmers

The review of alternative coping mechanisms is to inform us of the real options accessible to small farmers. It is an attempt to widen our discussion in the context of a search for solutions to the problem presented. The brief comments made in this overview serve to guide the thinking of policy but also incorporates, as much as possible, the farmers perspective, which is key to the reception of any intervention. What we may take away at the end of this chapter is that alternatives to off-farm agro-processing exist, but in a similar way, there are enabling conditions within each context that serve the process. Without these conditions, these alternatives may not be able to deliver the desired results.

## *Contract Farming*

Apart from pursuing value-added processing activities, small farmers have other options with which to counteract this current predicament. They may get involved in contract farming. This involves producing to the specifications of a contract with a company. Both are viable in Jamaica and we shall now look at the experience of Jamaica Broilers, which highlights an example of the latter.

Jamaica Broilers was founded in 1958, and by 1985, stood as the largest broiler producer in Jamaica, producing its own chickens, running the largest feed mill in Central America and the Caribbean, maintaining processing plants and refrigerated trucks for distribution, and was starting to produce its own feed ingredients. This company adopted the contract farmer system, which worked as follows –

> "Under this system, each farmer was responsible for building the broiler house to company specifications, purchasing the equipment and caring for the chickens during the eight to nine weeks required to bring them to marketable size. The company, on the other hand, would supply day-old chicks, feed, medication and technical services at no cost to the farmers. The chicks throughout their stay on the farm would remain the property of the company." (Freivalds 1985:64)

The author reports that many were sceptical of the system at first, including the then Minister of Agriculture. It was generally said the farmers would steal the feed, however, after inception, the farmers proved themselves reliable. When an initial shareholder chose to sell his shares, the decision was made by the directors to include the contract farmers among the employees eligible to buy the 30% now available. This happened in April 1977, and it was reported over 90% of the eligible employees participated. It was stipulated though that if contractors left the company, the shares were to be sold back to the company's trust. This may be seen as a lack of mobility for the contract farmers but at the same time, there was security in the returns as is shown below.

By mid 1981, Jamaica Broilers had 260 contract growers and with the enterprise growing, the following terms replaced the former contract -

> "It is the responsibility of the contract growers to provide the labour, utilities and management and to construct all buildings to the specifications of Jamaica Broilers. The company, for its part, provides the feed, chickens and medications, as well as making available the services of its staff which includes two veterinarians, a poultry nutritionist and an eight person field team. The farmers receive three types of payments: rental, performance and government payments. The rental payment is based on the cost of building and equipping the broiler house.... The performance payment is based on the average live weight and feed conversion recorded for the flock.... The third type of payment is related to the pricing policies of the government. When the government increases the consumer price of frozen broilers, a certain percentage of this increase is returned to the contract grower." (Freivalds, 1985: 68-69)

The second and third types of payment fluctuate but the first was a guaranteed weekly wage and this is where the farmer was able to have a secure baseline from the contract arrangement – herein lies the counter or rather coping mechanism against declining returns in small farming.

We should note that it is largely the employee stock ownership plan that makes this contractual arrangement favourable. Certainly it was a positive point when later, relations between farmers and management became strained and strikes were at hand.

Decision makers believed in the usage of local produce, as evidenced by the then Managing Director saying, "Local raw materials are the key to our future." (Ibid) This fact served to benefit farmers and by extension, helped to keep a good management-farmer relationship going.

Contract farming, under favourable terms as observed in the Jamaica Broilers system example, is a therefore an option.

## *Upgrading*

The key to competitiveness is improving performance. It is, however, not usually possible for small farmers to respond to competition with the upgrading of their current produce due to a lack of resources and know how. On the other hand, where these are present, upgrading becomes a viable option. The experience of the Jamaica Dairy Industry encapsulates this. In the report commissioned by NOVIB on dumping in Jamaica with regards to the dairy industry, Fiona Black records the following-

> "Of the 152.8 million litres milk equivalent consumed in Jamaica in 2000 only 25.4 million litres was from Jamaican farmers. The source of milk powder is primarily from the EU, where export subsidies bring down the price (by 137% in 1995). Jamaica is a member state of WTO that is working towards removal of subsidies and in such a situation Jamaican milk prices will be competitive." (Black, 2001:2)

Black stresses that uneven removal of tariffs internationally places the gains of free trade squarely in the lap of the richer countries. As mentioned in chapter one, much of the competition in agriculture in the Caribbean is distorted by the subsidies farmers abroad receive from their governments, enabling them to sell their produce cheaply in foreign markets – as is now the case with EU milk powder and other milk solids in Jamaica.

Four years before the figures quoted above, the Commonwealth Secretariat had conducted a study, yielding a strategy by which milk production could be increased and prices be decreased. It involved:

> "(a) the government forming a Dairy Board to compile information and make policy to ensure development at a cost of US$1 million,
>
> (b) the farmers forming a federation and taking the initiative to control their dairy sector by implementing a Milk Marketing Project and a Milk Production Enhancement Programme at a cost of US$21 million." (Ibid)

The state Dairy Board was formed and did a study on the cost of production, the milk marketing project was funded by the US government, and by 2001, the Dairy Farmers Federation accounted for 75% of national milk production – so progress was underway. Farm gate prices and retail prices of local fresh milk fell, however, this has not led to an increase in demand. Without an assured market the effects are being negated. Black highlights that the dairy sector needs government protection – at least until the subsidies to competitors abroad are removed.

Here we see that in order for the sector to move forward, enabling conditions were key. It required institutional support and research, which was in the form of the state dairy board, producer organization which accounted for the need for the Farmers Federation, and technical and marketing support which had to be externally funded at the time. Then, after all was said and done, the results could only make their impact in a protected environment.

## *Diversification*

With the loss of preferential treatment in arrangements such as the Lomé Conventions, which assured the Caribbean of a market and favourable prices for banana and sugar, its traditional exports, many Caribbean countries have sought to diversify their agricultural production. This is in an attempt to break their economic dependence on these traditional

crops and penetrate other niche markets. An example of which is that of exotic fruits like mangoes, guavas, paw paws and sour sops.

Success stories are few as recorded by Budhram and Rock (1991). Here it is pointed out that governments have a difficult time implementing a wholesale diversification scheme of any type due to the tight links between sugar, bananas and macroeconomic performance, as well as employment. The banana farmer may therefore resist switching crops due to his lack of knowledge of other crops and the uncertainty the new venture brings in terms of market, which is a major risk if he must support family and dependents. Governments may also find it detrimental to their foreign exchange flows initially since banana and sugar export revenues may be keeping the economy afloat.

Nevertheless, the Organization of Eastern Caribbean States (OECS) has adopted a focus on the diversification of fruit and vegetable production, with an increase of vegetable production targeting the domestic and tourist markets, as well as to feed into intra-regional trade. It appears the most prudent thing to do in order to prepare for a future without guaranteed prices and quotas. In this endeavour, however, the benefits are being eroded by incoming foreign substitutes, which compete well due to high costs of local production.

There has also been an attempt to diversify the use of the same traditional crops. Grenada, for example, is exploring a cane that has reducing sugars as opposed to the current one that is high in sucrose content. The former is good for rum production and would form a viable substitute for some of the current cane produce since the EEC and Canada are both ready to cooperate regarding increased rum production and bottling respectively. Cane production to produce livestock feed is also on the tables, given the high cost of imported feed.

The constraints to diversification are many though, and by looking at the problems Jamaica is experiencing with diversifying into exotic fruits and vegetables, root crops and horticulture for the export market, we get a good idea of the issues affecting most of the Caribbean islands. CIDA (Canadian International Development Agency) is currently

funding a project called CPEC (Caribbean Regional Human Resource Development Program for Economic Competitiveness) in Jamaica, the OECS and Guyana. Studies done under CPEC have revealed that even though Jamaica has the comparative advantage of high recognition as a main producer of the exotics, further investment is needed to overcome the problems encountered. These are mainly:

" - the high cost of capital, which inhibits expansion of production through investment in quality systems and technology;
- susceptibility to drought, which results in reduced numbers of farms and farming acreage;
- inadequate investment in research and development (R&D) and ineffective disease control, affecting product output and quality;
- inadequate agricultural extension services;
- poor access and high transportation costs"[3]

Against this background of problems, what may be observed throughout the Caribbean are many experiments with diversification in order to arrive at the most viable crops right now. Petit and Barghouti do not advocate that governments try a range of ideas then chose a winner though. Rather, their paper –

> "...argues that creation of a profitable environment for new crops requires substantial technical research, innovative economic analysis and policy adjustment." (Petit and Barghouti, 1992: 1)

We get a shift of focus towards nurturing the environment rather than the product options, as well as the description of the enabling environment for diversification. Our overview boils down to a recurrent observation – new ways of doing agriculture require support. This may or may not be from the government (as we will see in the example from Mexico below), but there is a need for the creation of various safety nets and management policies in order to make diversification viable for small farmers in the short run.

[3] wysiwyg://182/http://www.cpechrd.org/jamagri.htm

## *Local Organization*

In the early 1970s, the Mexican countryside underwent a political and economic crisis. For about a decade thereafter, the government maintained a strong presence by way of interventions in the agricultural sector. Barros Nock (1998) records the development of the Tecomán region, where lemons were one of the main crops and the lemon agro-industry was greatly fostered. The state offered credit programmes, research, technical assistance, the processing and marketing of lemons and guaranteed prices. This continued until the structural adjustment policies of the 1980s led to the withdrawal of subsidies and the start of a free market era. Farmers found that lemons and lemon products were no longer enjoying the access they had previously to the US market in terms of volume. One of the ways in which they coped with this was by strengthening local organization.

Local farmers in the *ejido* land tenure system used their grouping as a ready forum for organizing the collective work necessary to maintain water irrigation systems and roads. Water was also distributed through this local system. Their grouping grew in productivity and became known as the most democratic in the region. Members actively participated in the assembly meetings held, which allowed for the easy dissemination of information on crops, government programmes, credit possibilities, and markets among others. In the new era where the government was no longer feeding the sector with all that it needed, information dissemination became crucial for small producers to survive. These producers formed part of the US lemon agro-industrial chain - the Mexican end of the chain produced fresh lemons as well as essential oil, concentrated juice, dehydrated peel and pectin.

Barros Nock points out that the ejido system of local organization was an effective rallying card because of specific historical and cultural aspects. She notes that the system had evolved in such a way that family was beginning to dominate within each ejido. Its functions increased to include credit and conflict resolution and it became a mechanism through which power was exercised. Family and ejido became intertwined and were run in such a way that an outsider wanting to join, that is a non-family member, had to be

authorized by the ejido. Culturally this was proper and acceptable and strong family values even helped to keep the system afloat. People also embraced the organization during that period because although formerly the system had been used to defend the interests of landowners and the state, now it had become an effective forum of livelihood support for the members.

# CHAPTER THREE

# Analytical Framework

Our study on the possibility of agro-processing uses the framework of **rural industrialization** to locate itself within a plethora of perspectives on industrialization and rural development. We do not consider the technical questions of the actual organization of an agro-processing plant, and focus instead on the institutional arrangements that complement the set up of the agro-industry. Bearing in mind our first main research question, we will discuss the circumstances, as seen by authors on rural industrialization, which lead to the success of agro-industry.

## *The Importance of Rural Industrialization*

According to Saith (1986: 5),

> "...historically, rural industrialization can be regarded as a transitional stage between peasant agriculture and modern industry and also as the vehicle for affecting both the necessary primitive accumulation of capital from the agricultural sector, and its subsequent investment in individual activities usually after being routed through mercantile channels."

This transition is occurring in response to the need for a way out of poverty. The fact that rural industrialization has recently become a much-used strategy is thus due to the failure of the main growth engines in catering to the needs of the population. He later on comments that –

> "...the failure of even fairly high growth rates of GNP to generate adequate employment has led in the last decade to the identification of rural industrialization and non-farm generation employment as a pivotal policy for the future; East Asian successes are cited in support." (Saith, 1989: 51)

Bryceson, in discussing rural industrialization, also referred to as non-agricultural rural employment, stresses that:

> "The significance of non-agricultural rural employment (NARE) relates

to its growth as a substantial proportion of total household labour time and its contribution to household disposable income." (1996:97)

Bryceson outlines several factors that make NARE desirable:

- Increased levels of education of the younger generation in the countryside, leading to dissatisfaction with a purely agrarian life.
- Rural demand for health, education, marketing services for crops, transportation, among others, opening up the scope for NARE.
- The return migration of workers from urban areas in times of crises
- A tendency away from shifting settlement patterns to a more permanent one – giving way then to industry like construction.

Having seen then, why rural industrialization, in policy terms, might be adopted, let us look at its forms.

## *What does rural industrialization look like?*

Saith (1986) highlights two extreme forms of industrialization. Firstly there is the case where the rural workforce is absorbed into industrial activities, mainly in urban areas, as was the pattern observed in the Republic of Korea. The other type involves the countryside becoming industrialized by large factories, of which China is an example. In between lie variations, of which Taiwan is an example.

This typology is quite broad and indeed encompassing enough to be applied anywhere. Ahmed and Afroz provide another agro-industry scheme, but more specific to the Caribbean experience. They indicate that there are four production modes involved:

- home-based family production
- cottage-level production
- chemist laboratories
- large commercial processors.

Our community case below, Walkerswood Caribbean Foods Ltd., would fall somewhere between the chemist laboratory and a large commercial processor. We see then that this typology is not all encompassing, for in fact, what is missing is the community-based enterprise. So we begin to observe that agro-processing comes in many forms. Its identification therefore is easiest when using a definition rather than using a description of the categories of operation.

## *The role of rural industrialization in local development*

Bendavid-Val (1991) speaks of the benefits of rural industrialization to the development of an area. He observes that there is an interdependence between farming and non-farm income earning activities in the rural area. The more successful the latter, the more risk farmers can take on farming – for example, with new techniques. In other words, successful non-farm activity reduces dependence on farming, increases security of livelihood and facilitates progress in farming. Most farming households have one or more members employed in the non-farm sector or some investment, like owning a small grocery.

> "...As they diversify the markets on which they depend to earn income individually, the economic base of the area as a whole becomes more diversified." (Bendavid-Val 1991:22)

The benefits of this diversified activity to the area economy are that:

- it strengthens the rural area economy
- it increases the area's economic flexibility
- it lends support to weaker components of the area's agrarian base
- it helps underpin agricultural innovation. (Bendavid-Val 1991)

With the benefits outlined from Bendavid-Val above, we reasonably ask if these can come together to achieve the objective of development, defined by Bhattacharya (1980: 3) as "to raise the standard of living of the people as quickly as feasible."

It is here that the growth centre theory comes to the fore.

The growth centre theory postulates that starting with one enterprise in an area, backward and forward linkages are formed so that an industrial cluster grows. These linkages comprise other enterprises/ sole traders who either supply the inputs to the initial enterprise, or use its outputs as inputs for their processing, or even make use of effluents and waste, in which case they are called sideway linkages. The agro-industry in particular may signal the start of new transport links, as well as other infrastructure, such as electrification. Saith identifies this strategy as useful against inequitable geographical development. He highlights, however, that it is a supply-side intervention in that employment and technology would now be available – but it would be up to the rural population to respond to the opportunities (Saith 1992).

The outcome will also depend on how interlinked the industry is with the rural population. There are two ways, albeit not mutually exclusive, in which rural industrialization may be categorized. The first is by location – that is, simply by 'setting up shop' in the countryside. The second is by linkage, whereby regardless of location, an enterprise may constitute rural industry because it generates significant development benefits for that population (Saith 1992). It is the combination of the two that would be able to yield the effects espoused by the growth centre theory.

## *How does rural industrialization contribute to poverty alleviation?*

Saith (1992) enumerates six factors that lead to the popularity of rural non-farm employment (RNFE) as an escape route from poverty –

1. Employment growth has been lagging behind the rate of labour force growth. Natural increase and urban population growth lead to high labour force growth in some countries. The employment growth rate, conversely, may be low in the same setting because of slow rates of industrialization. The rural non-farm economy helps provide jobs for a growing labour force.

2. Rural industrialization brings a change in rural livelihoods without change in land tenure patterns. This has been a major obstacle to previous rural reforms that required land redistribution. Whether cottage industry or factory based, the non-farm economy may usually proceed without a change in tenure.
3. Rural industrialization is labour- and local resource-intensive, which according to the theory of comparative advantage, is suited to the economies of the South. Since this is where much of the world's unemployment and raw resources lie, the non-farm economy should make a positive difference here.
4. Rural industrialization programmes do not require state intervention and as such, have become a very popular initiative for NGOs. Bypassing the state allows northern donors to avoid elite and power structures in their sponsorship, and as such, they too tend towards rural industrialization.
5. Flowing from an urban decongestion policy, rural industrialization can be used, creating growth centres in townships. This is to combat problems associated with rural-urban migration, which feeds the process of slum creation.
6. Another reason for espousing rural industrialization has to do with increasing the human resource level. Rural industry would facilitate an expansion and deepening of skills, which would thereafter make its employees more marketable. It is the creation of options for many that stems the hopelessness that often accompanies rural poverty.

## *Expanding Economy : Essential Pre-requisite*

Various writers note that an expanding economy has thus far facilitated rural industrialization by increasing demand for the products of rural industry. This is important because if no one buys their products, the enterprises will quickly go out of business.

It is not realistic to assume that the rural population will consume their products. Firstly, in developing countries, people in the countryside are mostly poor. Secondly, if not poor, their demand will surely have a ceiling. If the population is growing richer and the product is income elastic, the surrounding area will account for some demand, but even then these may be relatively small populations. If sold in the urban areas, these products may be found competing with the modern sector – depending on the product type.

Saith comments on the issue from a national perspective.

> "...given the fact that the rural industrial sector is unlikely, in general to displace the modern industrial sector through open competition in local markets, the overall growth rate of the rural industrial sector is constrained by the rate of growth of the rest of the economy; dramatic expansion of the rural industrial sector is therefore likely to be contingent upon the exploitation of an external market." (1992:48)

This quote highlights the importance of the export market. An expanding economy, in our context, is one that offers increasing market opportunities. The FAO's special issue on agro-processing, The State of Food and Agriculture series no. 30, confirms this argument in stating that increases in productivity will need correlating increases in market demand in developing countries. Often, the export of the processed crop is necessary to absorb the excess. The situation is more likely as the processing plant becomes larger and more efficient, effecting economies of scale (FAO 1997).

Saith notes the examples of the East Asian NICS, where the economies of Japan, China and Taiwan enjoyed an increase in demand for non-farm products for decades as their GDP sustained a high growth rate. China was more inward looking in terms of demand, but for Japan and Taiwan, the sources of growth in demand were mainly export markets. He warns, however, that relying solely on the export market as a source of livelihood for the rural poor is risky since even for the NICS, a favourable export situation was not always guaranteed, and is indeed difficult to secure by any government in this era of free trade (Saith 1992).

## *The Case of Taiwan*

Taiwan is heralded as one of the successes among the East Asian NICS. It is also noted for its agricultural and agro-industrial achievements, and this is where we will focus. Using the investigation of Yu-Kang Mao and Chi Schive, '*Agricultural and Industrial Development in Taiwan*', we will examine why this is so.

Taiwan's agricultural production was export-oriented if we begin her story at the point of being a Japanese colony.

> "The principal goal of the colonial government was to make Taiwan's subsistence agriculture more productive so that large supplies of food could be exported to Japan to support its industrialization effort...The fact that agricultural output, particularly food, was not limited by domestic demand, is important in understanding its development process." (Mao and Schive 1995: 24-25)

Taiwan was therefore producing for its own population, as well as Japan. It had an expanding economy. This expansion was not only in terms of quantities but also in terms of kind, and the form of the crop exported.

Between 1952 and 1988, the composition of agricultural exports changed drastically. While in 1952 sugar and rice accounted for 81%, by 1988, fishery products alone accounted for 40%. The other leading exports were then hogs and pork, preserved vegetables, poultry feathers, preserved fruits, bamboo products, timber, fresh vegetables and bananas. We can see that Taiwan began to pursue diversification. There were now a wider variety of crops receiving investment, but also they pursued vertical diversification in that their leading export – fishery products – falls into the category of processed foods. What allowed Taiwan to move from agriculture in its strictest sense to a portfolio heavily reliant on agro-processing? Mao and Schive say -

> "This diversification has been due largely to adaptations by a well-educated, highly motivated farm population to changing demand patterns and cost relationships." (1995:30)

Education and motivation indeed stands one in good stead to respond to change but did the people do it all on their own? Our authors say no, and point instead to the enabling factors during this transition and after.

> "Taiwan's success in applying new agricultural technology was due to the efforts of rural institutions, particularly agricultural research stations, farmers' associations, and rural credit and extension services. (Mao and Schive 1995:25)

In fact, both public and private institutions played a role in the development of agriculture:

- The government, which initiated a process
- The JCRR (Sino-American Joint Commission on Rural Reconstruction), which was the nonpermanent agency for post war rural reconstruction of China
- US aid of $1.465 billion, of which a third went to agriculture to build infrastructure and foster human resources.

Below are some of the facets to Taiwan's institutional framework that have been thought to make the positive difference.

JCRR

This agency revitalized farmers' associations after the Second World War. It used them as a forum to combine the planning and implementation of research, extension and irrigation. The agency was free to work with any level of government and this made it effective as it carried out its services – listed below:

- support for facilities, equipment and personnel
- support and coordination for nationwide research projects
- coordination of research, education and extension activities

JCRR also gave leadership in problem identification and the planning of remedial measures, as well as some financial assistance.

The land reform programme

A reform programme was initiated by the government to reduce rents and sell public lands – the drive was to give land to the tiller. It was a success in that formerly, tenant farmers were paying at least 50% of their crop harvest in rent, and were thus not open to

any talk of improving farming techniques. After the programme, farming families owning their own land went from 61% to 88%, living standards continued to increase and farmers became more receptive to agricultural advances and even began to get involved in community leadership.

Research in agriculture

New technologies and modern farm inputs were necessary for increased production. Research institutes were then set up at the national, provincial and district level to address these needs. Crop-specific research centres were also created. The results were tangible and included the following:

- the successful production of hybrid hogs
- a decrease in livestock disease
- the development of high yielding varieties in rice, sugar cane, corn and sweet potatoes.

Farmers' organizations

These were set up mainly to implement rural development policies, and consisted of Farmers' Associations, Irrigation Associations, Fishermen's Associations and Fruit Marketing Cooperatives.

Support services

Extension officers were affiliated with each association and used various methods of information dissemination to teach farmers new techniques.

Associations joined the government and banks in extending credit to farmers and giving loans - this was essential since the landlords withdrew their credit during the land reform programme.

Rural infrastructure

The focus of improvements has been on rural roads and irrigation. This is to support the transport of crops between farms and railway stations or highways, and the irrigation is mainly for the rice crop.

One factor not mentioned so far is the fact that Taiwan was experiencing farm mechanization at the local level. This allowed labourers more time in which they could take advantage of opportunities arising in the non-farm sector (Saith quoted by Guimarães 1991).

Mao and Schive underline the interdependence of agriculture and the non-farm economy and posit that, in fact, agriculture contributes to the growth of other sectors. So, in creating the environment needed for agriculture to flourish, Taiwan was paving the way for a wholesale take off.

> "An important lesson from Taiwan's experience is that the resource flows between agriculture and the non-agricultural sector were an active two-way transfer." (Mao and Schive 1995:53)

This quote takes us back to Saith's assertion that the degree of interaction between the rural enterprise and its surroundings will determine how much impact it is able to effect. Taiwan's experience bore this out with the level of interaction not being left to chance or fancy but instead, an established institutional framework built, within which agriculture and the non-farm economy fed on each other.

# CHAPTER FOUR

# The Walkerswood Community

## *Presentation of Findings*

From the data collection exercise, the following findings were had. They have been arranged in order of the sub-research questions, preceded by background to the case. We begin with the community of Walkerswood.

### Background

Walkerswood is located in east central St. Ann, a parish on the north coast of the island. St. Ann is known locally as 'the garden parish' because of its greenery and the production of vegetables and fruits. The landscape has been nurtured and tended like a garden, thus the term. The community is found along the main thoroughfare that connects Kingston, the capital on the south coast, to Ocho Rios, a thriving tourist hub on the north coast. Walkerswood was initially a small farming community but today many other activities are pursued apart from farming. The community members started doing agricultural value-added initiatives in 1978 and today have a processing facility employing 64 persons. The registered name is Walkerswood Caribbean Foods Ltd. and there are now marketing offices in the Caribbean, The United Kingdom and North America.

The Community Council began the initiative, upon the prodding of the then Prime Minister Michael Manley to become self-reliant as a community and create their own employment. They began to sell jerk pork. The buyers liked the taste and began asking for the seasoning – this is when the idea blossomed to begin bottling jerk seasoning. They started selling it, and at the time, were the only exporters of the bottled version.

Jerk seasoning is a traditional condiment used when cooking meats and fish. It is very spicy and peppery. 'Jerk' is itself a method of cooking using the smoke of coals from pimento wood to cure meat outdoors. This method is not easily replicable abroad, and the

seasoning used not easily obtainable, so there was indeed a ready market that would buy this.

Initially the community sold to gift shops and supermarkets on the north coast. Tourists reported their satisfaction with the product and wrote Walkerswood for more.

The network abroad grew from personal contacts. A friend in England was sent a hundred cases of jerk seasoning as a trial. The response was good enough for the group to try the strategy in Miami, where another friend was sent the product. Up until today, the networking done and locating of retail outlets is largely based on friendship and personal contacts. The market targeted abroad is mainly West Indian, that is, immigrants from the Caribbean.

Please see Walkerswood jerk seasoning in Appendix A.

Since that time, Walkerswood has expanded their product line to include the following –

- Jerk BBQ Sauce
- Coconut Rundown Sauce
- Escoveitch Sauce
- Scotch Bonnet Pepper Sauce
- Jonkanoo Hot Pepper Sauce
- Solomon Gundy
- Zesty One Stop Savoury Sauce
- Guava Jelly
- Orange Marmalade
- Ackee
- Callaloo
- Allspice/Pimento
- Curry Powder
- Firestick Hot Pepper sauce

The ingredients used are mostly supplied by the farmers in the community and include carrots, coconut, garlic, guava, ginger, limes, mangoes, allspice, nutmeg, onion, oranges, scallion, scotch bonnet pepper, tamarind, thyme and tomatoes.

Walkerswood has gone online and can be found at http://www.walkerswood.com. Its web site is a main marketing tool as it can be used to order products, cooking tips, recipe books, as well as disseminate information about plant location and marketing offices. The company now uses the factory as a retail outlet, as well as local supermarkets and gift shops. Abroad, retail is done by supermarket chains, herbal shops and West Indian stores in the UK, Belgium and the Netherlands. Within the Unites States, products can be found in stores in California, Florida, Georgia, Illinois, Michigan, Nevada, the New York tri-state area, Texas and Washington D.C. Apart from distribution for household use, it also offers a commercial package upon order for restaurants and caterers, wherein the products are in larger quantities.

The community receives many researchers, both local and overseas, as their achievements are notable in the way of community development. The agro-processing venture is not their first or most recent one but the one with the highest turnover. This was reported by Ian Boxill (1989), who studied the community in order to find out the causes of its success. His arguments will also contribute to our discussion.

**First Sub-research Question**

The first sub-research question inquires about the economic, social and political conditions that facilitate their project. Factors and their indicators, as outlined in chapter two, have been identified and can now be seen below in the context of this community.

Figure 4. Table Showing Economic Conditions in Walkerswood

| ECONOMIC FACTORS | INDICATORS | WALKERSWOOD |
|---|---|---|
| Level of security of land tenure | * type of land tenure | * main type is ownership; small number of squatters observed (4 years ago the ruling party handed out plots but only to supporters) |
| Livelihood support | * number and type of bodies representing livelihood interests | * 1 pepper farmers group backed by USAID investment and collaborating with the Jamaica Bauxite Institute (spin off of Walkerswood activities) |
| Main type of livelihood pursued | * proportion of farmers<br>* proportion of business people (other classifications) | * 25% have farming as main income earner; 15% shopkeepers; 2% taxi drivers; 5% craft and construction; 20% housewives; 18% unemployed; 10% hotel industry and tourist shops |
| Level of human resources | * average level of formal schooling<br>* average level of skill | * average community member has been to All Age School (i.e. secondary level that ends at grade 9); females tend to read better than males and pursue further schooling more often *average community member is unskilled |

Figure 5. Table Showing Social Conditions in Walkerswood

| SOCIAL FACTORS | INDICATORS | WALKERSWOOD |
|---|---|---|
| Living standards | * main type of housing<br>* proportion of community accessible by road<br>* proportion of persons with access to treated water<br>* proportion of persons using electricity as main energy source<br>* proportion of persons possessing water closets<br>* proportion of persons with telephones | * main housing type is block and steel (some wooden houses)<br>* approximately 60% of the community is accessible by road<br>* 75% of the community accesses treated water (there is difficulty with water pressure in the hilly areas)<br>* 90% have electricity<br>* 70% have water closets inside<br>* 90% have telephones (this estimate includes land lines and cellular phones) |
| Level of community participation | * number of Community Based Organizations (CBOs)<br>* frequency of CBO meetings<br>* average community attendance at meetings | * 1 main CBO that started in the 1970s<br>* general meeting once a month<br>* significant decline in attendance due to suspected political leaning of organization (CBO in the process of revival and clearance of image) |
| Community achievements | * community projects completed<br>* existence of community-run facility | * a community centre was built and is run by community-elected officers<br>* a post office was built and is now rented to the government; a multi-purpose complex was also built (housing a restaurant that is now being refurbished after bad management, a mini-mart that is rented to a community member who runs the business and a carpentry workshop from which wood workers rent equipment) |
| Gender balance | * main tasks done by women in community initiatives<br>* their access to the returns | * main community task done by women is food processing at the Walkerswood factory – 75% of the 64 employees are women<br>* after 3 years of employment, women (as well as men) may buy shares in the factory |
| Public Service facilitation | * distance to nearest post office, police station and fire brigade service<br>* existence of street lights on main road | * There is a community post office; the nearest police station is in Moneague - 3 miles away; the nearest fire brigade is in Ocho Rios - 8 miles away<br>* The main roads are lit |
| Level of farmers' organization | * existence of farming associations | * the pepper farmers are the only ones who have formed an association, and it is representative of 25 to 30 pepper farmers who sell from 1 to 1000 pounds of pepper to the Walkerswood factory |

Figure 6. Table Showing Political Conditions in Walkerswood

| POLITICAL FACTORS | INDICATORS | WALKERSWOOD |
|---|---|---|
| Stability of local representation | * changes in Member of Parliament over last 10 years | * no change in the last 20 years |
| Political participation | * attendance at public forum meetings with the Member of Parliament | * approximately 40% turn out at meetings but with declining interest |
| Level of local oversight | * type of work done by Parish Council | * garbage collection on main roads (parochial roads excluded); clearing of roadside bushes (during election campaigns) |
| Level of community development activity by the state | * number of community development officers deployed<br>* their activities | * no officer presently assigned (the last one was 3 years ago, but no activities ensued) |
| Existence of partisan politics | * stronghold of any political party, or any other group | * approximately 65% support the ruling political party |
| Level of government intervention | * number of projects<br>* type of projects done | * no government projects carried out for many years |

**Second Sub-research Question**

The second sub-research question was 'What kind of external support, if any, facilitates the project?'

In the initial phases, the community received technical assistance from the Jamaica Industrial Development Corporation (JIDC). This was delivered by the Food Institute of Technology, which is a branch of the Scientific Research Council of Jamaica. At the time, the initiative was exploring ice cream and the Dutch government gave a grant in the form of an oven to bake the grape nuts for grape nut ice cream Since then, Walkerswood has undergone changes and their product line more streamlined towards food condiments as can be observed from their product line listed earlier.

Currently JAMPRO (Jamaica Promotions) is one of their partners in that they train Walkerswood staff in teambuilding, line production and supervisory skills.

The company maintains the pepper farmers group of about 30 farmers who supply the factory with scotch bonnet peppers. Walkerswood has a vested interest in the group and is currently encouraging them to diversify into pimento, among other crops that form product inputs. In this venture, Walkerswood receives help from the USAID and recently got a grant from the JBI (Jamaica Bauxite Institute) for this group. The JBI has mining activities in the lands nearby.

## *Discussion and Analysis*

The tables presented above give a fairly good picture of the conditions at hand in Walkerswood. We can see that in economic terms, there is diversity, as not everyone owns his/her land. This points to varying degrees of security as measured by assets. Some actually got their plots from the ruling party. Community members earn a living doing a range of tasks, with about a quarter concentrating solely on farming. Human resource levels differ between the sexes with females being more literate, however, both groups are exposed to skills training.

In social terms, Walkerswood has a fair share of infrastructure support, with its water supply being the utility need with outstanding room for improvement. Energy, sanitation, public lighting and communication by phone are all fairly in tact, though connectivity by road is not so impressive at 60% coverage. There is a post office and fire brigade unit nearby - the public service support that remains erratic is garbage collection and the maintenance of the road, in terms of surfacing and the removal of encroaching bushes.

The community represents a strong haven for the ruling party shown by the over 20-year tenure of the present Member of Parliament. This, though no government projects have been carried out for years.

Our aim here is to unravel the community-level conditions that allow Walkerswood to 'keep their act together', that is, to keep their agro-processing initiative alive and growing. Todaro notes that three conditions are essential to advances in rural development, namely, land reform, supportive policies and integrated development objectives (Todaro 1992). In Walkerswood, there was redistribution of land, that is, from government to the farmer. However unfair the residents thought the beneficiary selection process, it signifies a reform in that land control has now been transferred to those who actually work the land (Ibid). The effect of land ownership is an increase in economic security to community members and this, Todaro says, is the first step towards guaranteeing the farmer's desire for self and family improvement. We see this borne out in our case of Taiwan in the previous chapter, where land ownership amounted to a positive turn around in the reception of farming policies.

Walkerswood has marketing branches – firstly in Jamaica that caters to the Caribbean, and then in the UK and North America, serving those continents. These all open economic opportunities for the company, which also means more capacity for the farmers supplying the venture. Providing economic opportunities is one of the functions of effective support systems (Todaro 1992). Todaro notes, however, that in order for small cultivators to expand their output, they also need incentives and access to inputs – all three functions are prescribed under the work of the government. It seems that the lack of these last two be the reason behind the resistance of the community's farmers to Walkerswood's current drive for diversification. In truth, Todaro's three-fold function of supportive policies cannot be easily seen at work in Walkerswood.

So can we say that supportive policies are at work in this case? Todaro's public service examples of supportive policies point us towards government aid, extension service and community development officers giving technical and educational assistance. Instead of this, what we are seeing is a community that seems largely self-reliant. The Social Development Commission is reported to be an ongoing partner with the community in their various projects (Boxill 1989) even though there is no community development officer assigned currently. Outside of this framework, there is of course the private

sphere of support services to be considered, such as bank loans, which may or may not affect our conclusion as to whether or not Walkerswood is enjoying supportive policies. In their very first project, which was a multi-purpose centre plus playing field, we are told by Boxill that the Community Council took a loan but not for the agro-processing venture (Boxill 1989).

The presence of rural infrastructure is cited by Mao and Schive in chapter three as a stepping-stone for Taiwan. In fact, Saith ascribes well-developed rural infrastructure in that country, in particular electrification, to be a prime reason industrialization was able to keep up with the rate of their expanding economy (Saith 1992).

The Walkerswood community has roads, electricity, telephone, sanitation, and to lesser extent water supply. It then stands that without these in place, the plant would not be able to operate as it does. There is also a community post office. The FAO Regional Office for Latin America and the Caribbean issued a practical guide in which five basic facilities are required by small food processing plants:

1. Buildings
2. Water Supply
3. Electricity Supply
4. Sewage Disposal
5. Food Processing Equipment (FAO 1986)

Our community is therefore in good stead according to the authorities to carry out its agro-processing.

Walkerswood, being located along the main thoroughfare linking the capital to a major north coast tourist and entertainment hub, as well as shipping port, has the advantage of easy transport of its produce out of the community. Saith points out that the incorporation of rural areas into a wider transport network was a necessary (but not sufficient) precondition for the expansion of economic activity in Taiwan's countryside (Saith 1992). Transport links within the area also count in the equation since factory employees need to travel to and from work, and farmers need to move their produce from their plots

to the factory. In view of this, 60% accessibility by road can be seen as facilitative but not overly so.

In terms of community development, we can see that the agro-processing initiative has made a difference – not only in salaries, but also in on-the-job training as it brings external support in from Jamaica Producers. The degree of linkage the enterprise has with the community is further brought out in the ground rules of the company. Kautsky advises a joint stock company to be best for small plants so that farmers may also pocket a profit on capital (Kautsky 1899). This set up is a way of getting the benefits of industry to the farmers themselves, who sell to the enterprise rather than launch one of their own. This approach of inclusiveness is not foreign to Walkerswood, which has indeed launched a policy whereby employees may buy shares after three years of work tenure. We see the Chairman of Walkerswood Caribbean Foods, Roddy Edwards, saying -

> "No sustainable community development could take place unless an adequate number of people had steady jobs over which they had some control."[4]

Now Walkerswood boasts of being employee-owned. This is not the pure version of Kautsky's prescription though, since only factory workers, and not farmer/suppliers are eligible. However, it does contribute to community development, above even fostering worker loyalty. Here we see the ownership arrangement playing a role in the conditions enabling the initiative to succeed.

Helmsing highlights that an effective scheme for creating conditions for local economic development will include the creation of local safety nets (Helmsing 2001). At this point we turn our attention to gender. At the Walkerswood plant, most of the employees are females. They are equally entitled to the joint stock offer mentioned above. Amongst the pepper farmers, women are reportedly the ones who pick the peppers planted by the men. From picking, they can earn as much as the Jamaican dollar equivalent to US$111.00 per week. In order to ensure an improvement in economic standing for these women, the company is in negotiation with the Jamaica Bauxite Institute to give them some land on which to farm their own peppers. This qualifies as the creation of a safety net, since only

[4] www.walkerswood.com/villagelink.stm

reaping your own peppers can give you the right to pocket its returns. The point in safety nets is the reduction of insecurity. Land ownership is an example of a sure footing with which to withstand economic shocks. Helmsing indicates in his paper that the inability to withstand economic shocks is a key feature of poverty. Here Walkerswood is not only contributing to the enabling environment for their business to survive by way of representation of their women suppliers, but is also playing a major role in community development by increasing women's asset security.

Agroprocessing in Walkerswood is serving as a means of deepening and widening the skill reserve. In training workers in supervisory skills we see the plant is really grooming leaders. Saith (1992) cites an increase in skills as an advantage of agro-processing. However, we do not ignore the fact that it is the employment of the community's relatively unskilled workers that allow Walkerswood to make more returns, since they can save on high salary costs. It was the FAO in their 1997 issue of The State of Food and Agriculture that pointed out that the extent to which agro-processing will contribute to development lies partly in its use of unskilled labour. This is as opposed to modes of production utilizing capital and skilled labour in high ratios. As it is, the production process at the Walkerswood plant can be cheaper because the labour factor is cheaper.

The extent of the marketing done by Walkerswood may not be taken as non-consequential since they have now secured 11 outlets of retail/ distribution across Europe and 40 across the United States. This is the result of networking done by their marketing offices in Jamaica, Florida and the United Kingdom. In fact the assurance of market may have once been seen as 'after care' in the agri-business but as we discussed in chapter three, if no one is buying, then the gains of launching an agro-processing enterprise will be very short-lived. In fact FAO has observed the importance of marketing as the service that would assist in finding one's way from the factory to the table -

> "One of the characteristics of the new agro-industrial development is the increasing importance of processing and marketing activities...The extraordinary export growth achieved in the 1980s and 1990s by some countries has depended on the thorough planning of all product transformation phases, from the original producers to the final consumers." (FAO 1997: 249)

We saw Saith pointing us to the probable necessity of exporting in order to secure a market if one's domestic market is not absorbing the new commodities. This is what Walkerswood has done by tapping into Caribbean immigrant niches overseas, making them its special clientele. Herein lies the 'expanding economy – essential pre-requisite'.

Our title is set in the context of the community and this makes a difference in terms of social dynamics. The community of Walkerswood, as an agent of development and entrepreneurship, has a checkered history. The Community Council has organized projects other than the agro-processing initiative. Some are completed and went well, such as the building of their Post Office, which is now rented to the government. Others folded such as the opening of a restaurant, which was dissolved due to bad debts. Some are still under the management of the Community Council like the renting of woodwork equipment to community carpenters. We may make a general observation here in that this is not specific to the agro-industry but extends to any community initiative. When a community is successful at earlier programmes, they will attack subsequent ones with a tangible drive to succeed. As Abatena (1995: 6) says,

> "... every community has some limited capability and necessary resources such as ideas, talents, skills, leadership, human energy, and financial and material assets, regardless of how little the available amount may be. Full and efficient utilisation of these resources will enable the community to tackle, at least, some of its problems and thereby appreciate it own capability. As a result it may gain some self confidence and subsequently may develop the motivation and the will power to do more in the future."

We may then add to our discussion of enabling conditions for the small farming community the very history of their initiatives. Walkerswood was able to get projects off the ground, which contributed to their ability to undertake agro-processing. A successful history will enable more of the same over a history of folded projects. In this sense, as Berner (2002) says, in the context of community development, success breeds success.

At the beginning of their initiative the community got technical assistance from the Food Institute of Technology as well as equipment from the Dutch government. Currently, it still has external partners and this has been the way it has compensated for its own

shortfall in resources and skills along the way. In this sense, it is not a totally self-reliant venture even though it represents the response of a community who was challenged to become self-reliant in job creation (rather than wait on the government to solve their unemployment problem). Their will and ability to respond is not to be overlooked, however, and must account for the impetus in the first place. In fact Boxill identifies a history of self-help in that community starting from the 1930s when people from the surrounding area came together to launch one of the island's first Farmers Cooperatives. The fact that much of the groundwork in community projects is done on a volunteer basis attests to the survival of this tendency. He highlights four major contributors to the success of the Walkerswood ventures, of which a history of self-help is the first one and most outstanding in comparison with other communities in rural Jamaica (Boxill 1989).

**Summary**

In our discussion above, we identified ten aspects to the community that facilitate the operation of Walkerswood Caribbean Foods Ltd. These are mostly economic conditions, namely the expansion of markets overseas, the availability of cheaper unskilled labour, the joint stock arrangement for workers, the location being along a transport main and the presence of rural infrastructure and facilities. Politically, we saw land ownership recently enter the scene and we discussed supportive policies. Socially, we spoke of the creation of a safety net against poverty, the impact of past community successes and a history of self-help.

# The Cassava River Community

## *Presentation of Findings*

### Background

The Cassava River community is found in northeast central St. Catherine, a parish with a coastline along the south of the island. It is named after the Cassava River, which runs through it. It was a farming practice to rinse cassava there as thus came the name. It is relatively remote in that it is located off the main road and there is no bus route through the community. Its residents depend mainly on small 'minibuses' and un-chartered taxis (locally known as 'robots') for their transportation.

Cassava River belongs to a cluster of four communities – the other three are Harker's Hall, Above Rocks and Glengoffe. Collectively, the area is referred to as Glengoffe and has a total population of approximately 8,700 persons (PIOJ Poverty Map 1997). This area is rated as quartile 4, the lowest, on the poverty map.

The local farmers' branch of the Jamaica Agricultural Society, together with teachers from Cassava River All Age School and students involved in the school's 4H Club have come together since 2001 to carry out a value-added initiative. The activities are done once a week at the home of the group's founder, Mr. Barrington Clarke. Using household appliances and renting equipment from a community pool, they produce the following:

- Curry powder
- Apple jam and wine
- Pear and root wines
- Mango jam and puree
- Guava jam, jelly and cheese
- Coconut drops and other coconut candy types

- Jackfruit preserve and jackfruit seed flour
- Noni juice
- Breadfruit flour and chips
- Herbal spices
- Chocolate
- Hats, bags and mats from the jippi joppa palm plant

Please see Appendix B for examples.

These products are sold mainly to community members. Otherwise they are displayed at fairs. Some local supermarkets, as well as herbal shops in the United States, have been approached to carry the line but farmers were not able to supply enough in guaranteed quantity to meet the demand. This was the case with ginger. The founder reports that so far, group members have not had an increase in income in terms of cash but at the same time, they have had increases in their own savings and of course, do enjoy the products (Interview, 2002).

The group is still in the initial phases and are currently applying to an international donor for funds to buy a solar dryer and a cool storage container. They receive tools and seedling from the area's government Councillor and moral support from other bodies such as the Parish 4H Club, the Social Development Commission and the Jamaica Agricultural Society. The Rural Agricultural Authority sends a Home Economics Officer to assist in the skills training periodically.

**First Sub-research Question**

The tables below contain the findings on Cassava River that pertain to sub-research question one inquiring of the community's economic, social and political conditions.

Figure 7. Table Showing Economic Conditions in Cassava River

| ECONOMIC FACTORS | INDICATORS | CASSAVA RIVER |
|---|---|---|
| Level of security of land tenure | * type of land tenure | * about 98% own their own land through purchase or deed or gift; a few people rent land; no squatters |
| Livelihood support | * number and type of bodies representing livelihood interests | * Glengoffe Peoples' Cooperative Bank sometimes represents farmers; RADA gives advice to farmers; Agricultural group is trying to revive craft activities and has a small show in August at Harker"s Hall; no business representation even though there are small businesses |
| Main type of livelihood pursued | * proportion of farmers<br>* proportion of business people (other classifications) | * about 80% are farmers but these persons do other things with farming as a back up activity; about 25% have farming as their main activity; 2% business; <1% craft; <1% construction; 60% drivers; 4% self employed; 8% civil service; other (including housewives, who mostly work outside the home as well) |
| Level of human resources | * average level of formal schooling<br>* average level of skill | * about 98% has been exposed to primary school; 95% to secondary school in varying degrees<br>* 95% exposed to basic skills training in cookery, needlework, woodwork, secretarial studies, child care and computing at school |

Figure 8. Table Showing Social Conditions in Cassava River

| SOCIAL FACTORS | INDICATORS | CASSAVA RIVER |
|---|---|---|
| Living standards | * main type of housing<br>* proportion of community accessible by road<br>* proportion of persons with access to treated water<br>* proportion of persons using electricity as main energy source<br>* proportion of persons possessing water closets<br>* proportion of persons with telephones | *main housing type is block and steel<br>* 20% of the community is accessible by road (most lanes are unpaved and too narrow for vehicular traffic)<br>*majority has access to running water but the level of water treatment is uncertain (water trucked to the community in times of shortage is treated)<br>* 85% have electricity<br>*15% have water closets inside but often continue using pit latrines due to erratic water supply<br>* 85% have telephones (this estimate includes land lines and cellular phones) |
| Level of community participation | * number of Community Based Organizations (CBOs)<br>* frequency of CBO meetings<br>* average community attendance at meetings | * no central CBO currently but one is being formed<br>* plan is to meet once a month<br>* so far there is an Executive body of 12 persons now doing the planning |
| Community achievements | * community projects completed<br>* existence of community-run facility | * no completed project that could be remembered<br>*the Cassava River Primary School is used as a meeting place because there is no community centre; various churches in the area organize Labour day projects |
| Gender balance | * main tasks done by women in community initiatives<br>* their access to the returns | *no community initiatives currently (things started in the past never got off the ground) |
| Public Service facilitation | * distance to nearest post office, police station and fire brigade service<br>* existence of street lights on main road | * There is a post office and police station in Glengoffe - 2 miles away; nearest fire brigade is in Stony Hill - 7 and a half miles away<br>* The main roads are lit |
| Level of farmers' organization | * existence of farming associations | * the farmers have formed a branch of the Jamaica Agricultural Society (JAS) |

Figure 9. Table Showing Political Conditions in Cassava River

| POLITICAL FACTORS | INDICATORS | CASSAVA RIVER |
|---|---|---|
| Stability of local representation | * changes in Member of Parliament over last 10 years | * no change in the last 15 years |
| Political participation | * attendance at public forum meetings with the Member of Parliament | * little attendance |
| Level of local oversight | * type of work done by Parish Council | * water is brought by trucks when needed; garbage collection is erratic; bushes cleared from roadsides at Christmas |
| Level of community development activity by the state | * number of community development officers deployed<br>* their activities | * no evidence of SDC officers being assigned (Social Development Commission), that is, no visits |
| Existence of partisan politics | * stronghold of any political party, or any other group | * stronghold of the ruling party |
| Level of government intervention | * number of projects<br>* type of projects done | * potholed roads have been patched recently due to upcoming elections |

## *Discussion and Analysis*

In this section we are seeking to isolate the conditions present that may pose an obstacle to the establishment of the community's initiative. Let us first summarize our tables. In terms of their economic standing, we see community members relatively secure in that most own their own land – be it by purchase, deed or gift. For the approximately 80% who are farmers, there is access to credit by way of a local bank as well as technical advice from RADA. Farmers find representation through the community JAS branch but there is no business representation. Three-quarters of the farmers are also involved in other activities, such as business, craft, construction, taxi driving – as are other community members. The average person has been to primary school and more than likely secondary, as well, where there is exposure to skills like childcare, woodwork, cookery, needlework, secretarial studies and computing.

Socially, there is diversity of utility coverage in that whereas only 20% of the community is linked by road, 85% have electricity and telephones. With erratic water supply, mostly pit latrines are used (even by those with water closets inside). The primary school is used as a meeting place and churches organize activities that might otherwise be central, such as Labour Day projects. This is because there is no established CBO and no community centre in which to meet. Traditional public services such as post office and fire brigade are relatively nearby. In terms of representation we see the farmers are part of the Jamaica Agricultural Society (JAS), which positions them to access on-going technical advice from the St. Catherine parish office as well as help in organizational development.

Politically, Cassava River represents a stronghold of the ruling party. There is, however, not much government intervention currently. There are no projects and no community development officer assigned. The Member of Parliament does visit, however, and is very supportive of the initiative by the food-processing group. The area Councillor has given tools and seeds to the JAS branch. Water trucks are also dispatched in times of shortage to tide the community over until the piped supply returns. In this sense, there is government presence.

According to the founder of the Cassava River group, Barrington Clarke, the most pressing issue is the financing of the group's activities (Interview, 2002). While the group is indeed applying for grant aid from a foreign donor, without some start-up capital, the scale of operations may remain the same. We see here the need for policies that would support the access to credit for agro-processing ventures. Indeed, upon exploration of the credit criteria for value-added projects, the National Development Foundation of Jamaica advised that an investigation would be carried out to ascertain –

a. Market availability for the processed product
b. Climatic condition at hand
c. Accessibility of raw material for the venture
d. Local competition regarding the processed product
e. Foreign competition regarding the same.

In this sense, we see that in its current infant stage, the Cassava River group has a way to go before qualifying for loans meant for this sector. At the same time it is ironic that it is at the very beginning when the loan would be needed. This brings us to another observation of Kautsky. He points out that the formation of an agro-processing group will not benefit the needy peasant farmer who cannot:

1. contribute money; and
2. produce raw material of the required quality for processing.

Rather, he prescribes the processing route for the "middle strata" of farmers who can meet the two requirements above (Kautsky 1899). We see then that where capital is not readily accessible, agro-processing may not be expected to play a poverty alleviation function.

For Clarke, the other pressing issue is the need for a building (Interview, 2002). As already established in discussion of the Walkerswood case, this is part and parcel of the basic facilities listed by the FAO in their food-processing guide (FAO 1986).

There is an obstacle to the initiative that is also a problem to the farmers: a lack of rural infrastructure. Of particular concern is the poor state of the road to reach the community, then once in, only 20% of it is accessible by vehicles. This would cause difficulty transporting crops. Saith, as well as Mao and Schive, indicate that the transport network and electrification indeed made a big difference in Taiwan's rural industrialization projects (Saith 1986; Mao and Schive 1995). The issue is that for the agro-processing plant to run efficiently, there should be regular supplies of raw material in sufficient quantities (Budhram and Rock 1991). Regular delivery is hampered by having to make do with footpaths that may or may not be passable when rain falls. This would become a serious issue as the initiative becomes established and grows. The erratic supply of water in Cassava River may also pose a problem if a collection strategy is not put in place to ensure continuous access.

Currently, the community's farmers are not producing crops in the quantities and quality demanded by buyers like supermarkets. This is the group's biggest problem, as reported by the JAS St. Catherine Parish Secretary Cardia Duhaney, who is working with the

farmers to improve the situation (Interview, August 2002). The aspect of regularity refers not only to actual delivery, but also to the planning it takes to coordinate the harvesting of crops with the processing organized for it. Agro-industry is peculiar in that its inputs are seasonal, perishable and varied in quality. Given these facts, the FAO advises that unless there is a close link between the two activities, agro-industry will be inefficient and unsustainable during periods when crops are not forthcoming (FAO 1997).

At the same time there is much waste in that both fruits and vegetables may rot, either unpicked on the tree or unsold and uneaten. Reducing waste, apart from the desire to add value to their produce, is the other reason the farmers want to get involved in the value-added initiative, according to a Justice of the Peace resident in Glengoffe (Interview, August 2002). Here abundant and wasted crops is not an obstacle but rather represents untapped potential.

In this sense we see that indeed the interdependence between agriculture and industry mentioned in the previous chapter is very practical and actually has to be considered seriously from the very initial stages.

Cassava River is targeting foreign supermarkets as potential buyers right now so we see there is the plan to serve a wider market. One of their first hurdles will be product development. Meeting import standards abroad implies that each item would have to be of the same quality and size, and of equal shelf life, among other standards. The technology for these developments is available at the Food Technology Institute of the SRC. However, it would cost the group the Jamaican equivalent of US$156 to do one course in shelf life and preservation. This brings us back to their lack of capital.

The FAO also highlights the advantage of coordinating the timing between processing and product arrival on the market. They cite the example of the Chilean agro-industry, which does careful studies of the competitors in Europe and ensures their own products arrive in their counterpart's off-season. This implies planning of all stages from the original producer to the final consumer (FAO 1997). This type of marketing skill is not

available within the Cassava River group, and not being accessed through the government agencies currently serving them, such as RADA.

In fact, Petit and Barghouti (1992) advise that any investment to enable vertical diversification should include the agricultural needs as well as the processing, down to the final consumer. They argue, in their World Bank publication, that the range of skills needed justifies adding a vocational element to rural education for on- and off-farm jobs. Currently the school curriculum in Cassava River includes valuable skills but none that specifically target off-farm jobs. The 4H club is exposed to weaving of the jippi joppa palm, the making of fruit preserves, as well as the drying and the milling of flour. An immediate option would be to expand such an extra-curricular activity to benefit non-club members at the school.

The founder of the group has organized a community trip in the past for the group to visit a nearby plant to learn more about the sector's operation. He also visits the Food Technology Institute and makes notes. Here we see the group attempting to meet their need for information and exposure. Taiwan's example showed that research made them expand leaps and bounds. Petit and Barghouti (1992) advise that improving farmer response to changing market situations and new technologies should be the focus of diversification and as such, can be enhanced by research, extension services, marketing services and credit. They categorize these as essential support services not just for primary crops, as has been the case traditionally in some places, but also for food processing.

Our group is known within the community but based on the commentary by the principal and staff of the Primary School, it does not qualify as the overarching community based organization (CBO). Instead, it is perceived as a group reviving the handicraft trade and 'trying their hand' at food condiments. This already places limits on participation in the agro-processing venture since a central body would be key for information dissemination at the beginning as well as throughout. From our interview with the founder, we realise that the venture really belongs to the JAS branch and the 4H club members that it trains. Immediately we think of their legitimacy. Without more participation from other

community members, it will be hard for the group to command community resources and solicit much more help than at present. This year the members began organizing themselves into a larger body called the Cassava River Development trust, made up mostly of past students of the community's schools. This body, however, is yet to make its impact. In terms of gaining legitimacy and access to more human resources and otherwise, it was indeed a good idea for the group to have joined with the larger Development Trust.

Continuing with organizational concerns, we now look at the Cassava River group's operation in terms of the level of order. This issue was raised by Cardia Duhaney, the JAS St. Catherine Parish Secretary. Currently the JAS mobilises persons to attend monthly meetings in which they deliver leadership and marketing training. When asked what it will take for the group's initiative to be successful, she replied –

> "Value-added needs regular meetings in the community. The group members need to pay their dues for the financing to continue. Farmers must stay together and organize themselves." (Interview, 2002)

Mao and Schive, in studying Taiwan, noted that one of the contributors to a high level of responsiveness to change was the willingness of the rural population to adopt new techniques (see chapter three). Here, we find that even though the initiative is not being imposed by outsiders but really was born within the community, there is resistance to change of methods. This is not strange in rural settings but will indeed need to be overcome in order to move forward.

**Summary**

We have discussed nine foreseeable obstacles to the community initiative in the section above. Economically, we identified a lack of capital, the need for a building, inadequate rural infrastructure, an irregular supply of crops and the need for product development. Socially, there is the need for more agri-business skills, a lack of legitimacy in the group's representation of the community and some unwillingness to change from within. In terms of political conditions, we spoke of the need for more support services.

# CAN CASSAVA RIVER FOLLOW THE WALKERSWOOD EXAMPLE?

Walkerswood started their value-added initiative in jerk seasoning at a time when food condiments were very much non-traditional. The reception that met the product confirmed its market demand 25 years ago. Since that time, many other communities, as well as commercial processors have added their products to the wide range of food condiments now available locally, and to a lesser extent abroad. This is the field Cassava River wants to play on.

Here we are implying that Walkerswood enjoys an advantage by being the early starter that the other producers will not be able to obtain. This advantage lies in capturing market demand early. The playing field then changes. The international market is no longer the same and is actually increasingly difficult to penetrate by latecomers due to the small size of the pie to be shared – that is, the limited demand of the foreign niche market. The game itself is now governed by rules of free trade, which was not the case 25 years ago. Walkerswood is able to maintain its portion of the pie as a result of product recognition, among other factors like aggressive marketing. Cassava River would therefore not be able to blindly follow in the footsteps of Walkerswood and have the same results. In this sense, the two communities are not comparable.

From examining each case, however, we are able to identify factors that may favour agro-processing in any of the two communities. These are highlighted in our conclusion. To this extent, we see that some general guidelines for communities in Jamaica may ensue from our paper as long as the impact of case-specific issues are considered, such as Walkerswood's early starter advantage.

# CHAPTER FIVE

# CONCLUSION

In the identification of facilitating conditions in Walkerswood and obstructive ones in Cassava River, many issues arise as enabling for the former, the lack of which serve as inhibitive in the latter. So some conditions favour agro-processing in both communities. These are listed below:

- An expanding market
- Supportive services, including research and extension services
- Rural infrastructure and basic facilities
- Start-up capital
- The use of abundant raw material and unskilled labour
- Land ownership
- Regular supply of crops of good quality
- Agri-business skills, including marketing and product development

Additionally, for Walkerswood, there is the:

- Joint stock company arrangement
- A tendency towards self-help

Additionally, for Cassava River, there is the need for:

- Legitimacy of group as representing the community
- Organizational development for a new group
- Willingness of the rural population to operate in new ways

Our problem statement remains in that farmers are no longer able to compete by sticking to traditional agriculture. We have seen their diverse coping strategies from the literature as well as from the cases. We advocated that farmers go the agro-industrial route. Walkerswood did it because they wanted to create jobs. Cassava River wants to do it to add value to their farm produce and prevent future wastage. Is agro-processing then the cure for these issues? No, but if it may reduce unemployment and raise value of primary

produce while making use of local inputs, then it qualifies to be used as a survival technique for those competing in this free trade era.

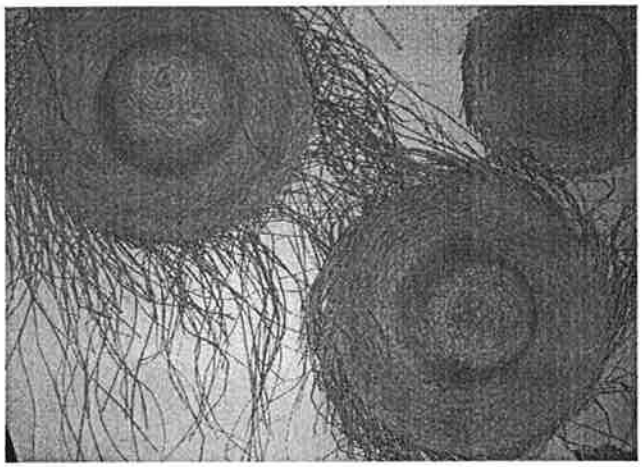
*Appendix A*

**Walkerswood's Jerk Seasoning**


Taken by Kibibi Thomas (2002)

*Appendix B*

**Cassava River's Jippi Joppa Hats**



*As displayed at Denbigh Agricultural Showground, Jamaica 2002*

Taken by Kibibi Thomas

**Cassava River's Mango Jam**


*As displayed at Denbigh Agricultural Showground, Jamaica 2002*

Taken by Kibibi Thomas

*Appendix B continued*

**Cassava River's Pickle Pepper sauce**


*As displayed at Denbigh Agricultural Showground, Jamaica 2002*

**Cassava River's Pineapple Preserve and Guava Jelly**


*As displayed at Denbigh Agricultural Showground, Jamaica 2002*

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**Interviews**

- Mrs. Perkins, Senior employer -Walkerswood Caribbean Foods Ltd.; Community Council member
- Barrington Clarke, Founder – JAS Cassava River branch; Farmer; Community member
- Mrs. Walters, Principal - Cassava River Primary
- Mrs. Creary, Teacher - Cassava River Primary, Community member
- Mr. Hall, RADA Land Husbandry Officer for St. Catherine
- Ms. Duhaney, JAS Parish Secretary for St. Catherine
- NDFJ Staff member
- Mr. White, St. Catherine RADA Parish Office
- Mr. Lawrence, Justice of the Peace; Glengoffe community member