

Adding Value to Local Foods for Food and Nutrition Security: Myth or Strategic Option

The Role and Impact of State Marketing Boards and Agencies

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Summary

The purpose of this paper is to review the impacts that state Marketing Boards and Agencies have had on the agricultural sector when it comes to creating value and improving food and nutrition in the Caribbean region, given that the agricultural sector has been in a state of decline for many years, food imports are at very high levels and there are concerns about poor food nutritional quality and the rapid growth in the numbers of persons suffering from dietary and lifestyle related diseases such as obesity and Diabetes Type 2. The review was based upon a combination of desktop research, specialist stakeholder input and a survey of key sector stakeholders.

As a result of this review, the general consensus is that state Boards and Agencies are generally operating within a set of traditional parameters and are required to deliver on often quite different commercial, regulatory and policy agendas at the same time. This has led to the perpetuation of agendas which are no longer relevant in the 21st century, as well as confusion when it comes to delivery. In addition, such entities are not driven by entrepreneurship and innovation and so they tend to be 'followers' rather than 'leaders'.

From the entrepreneur and private sector perspective, some of these Boards and Agencies have sometimes made quite useful contributions that have assisted them to achieve their goals. However, such assistance has often been slow in coming and not delivered within a holistic integrated context, nationally and internationally. In addition, some of these Boards and Agencies have been pursuing activities which have tended to have had negative consequences for private sector entrepreneurs e.g. within local markets where both are competing to deliver to the same buyers or where they hinder export development through monopoly powers they have to control the aggregation and sale of basic commodities, such as cocoa and sugar, to offshore buyers.

The paper presents eight case studies that describe how entrepreneurs in the region have achieved success by establishing comprehensive market driven value chains that operate efficiently and effectively, both within Caribbean countries and internationally. The view is put forward that such entrepreneurs provide a leading-edge view of what could be achieved by the agricultural sector in terms of value creation and food and nutrition security, but in a quite different way. That way is based upon exploiting the things the Caribbean region can do best rather than trying to continue to be commodity producers and traders (with two countries possibly being excepted). By focusing on what can be done best and generating the greatest value, a 'bigger picture' model for improving food security and nutrition could be pursued.

There are a number of important 'Reality Gaps' that exist when it comes to agricultural sector development in the region. The only way that such 'Gaps' can effectively be addressed is through the formation and effective operation of public private partnerships because neither the existing public nor private sector stakeholder groups are capable of delivering an improvement in the agricultural sector contributions in the three areas described on their own. The current situation that exists is a good illustration of what happens if such partnerships are not pursued. The author of this paper suggests a basis upon which both public and private sector stakeholders could participate in such partnerships

because a clear demarcation of roles is needed to ensure that they function effectively and deliver positive measurable outcomes.

In closing, the author puts forward ten key areas the agricultural sector needs to address in a practical fashion if it is to thrive and deliver greater value creation and improve food and nutrition security. In the author's view, most of these ten areas are not being accorded the attention that they should be by the majority of those involved in supporting the development of the sector, particularly at the state level. It is only the leading-edge entrepreneurs who accord these ten areas the right level of attention because all are fundamental commercial imperatives. Unless the 'Reality Gaps' identified and these ten key areas essential for success are accorded the attention they require, it is unlikely that the current status of the region's agricultural sector will change much and the potential contribution it should be making towards economic and social progress in the region is unlikely to be realised.

The author is of the view that it is time to adopt a radically different approach, when it comes to agricultural sector development in the Caribbean, if greater value creation and improved food and nutrition security is to be realised in future years. That approach must be vision-led, goal-oriented, and delivered through more effective public private partnerships.

Introduction

The challenge associated with delivering a paper around this theme is to try and present a balanced and yet provocative view of how state Marketing Boards and Agencies have been impacting upon the agricultural sector in the Caribbean region in terms of the contribution the sector has been making towards national GDPs in three specific areas - namely value creation and national food and nutrition security. Many of the agricultural sector structures and policies that applied in the past are not relevant in today's world. However, the evolution of more relevant alternative structures and policies has been painfully slow and, in 2012, there are many who are of the view that the Caribbean region's agricultural sector is simply not delivering at the level it should be in order to support social and economic progress in the region. The brief for writing this paper is within this broader context:

'The Caribbean region is a net importer of food. According to the Regional Food and Nutrition Security Policy (RPNSP), the Caribbean imported US\$ 3.5 billion in both fresh and processed foods, primarily from outside the region and this is trending upwards. Changing dietary patterns and more sedentary lifestyles over the years have also contributed to the high prevalence of non-communicable chronic nutrition related diseases such as diabetes, cancers and hypertension. However, pockets of malnutrition and under-nutrition still exist in some countries, particularly Haiti and Jamaica and between 1999-2005, 7.5 to 7.6 million people were considered malnourished. Within the last 20 years or more, marketing boards and small and medium-scale food processing enterprises have expanded but they face several challenges; technological, logistical and financial in accessing and processing locally grown foods e.g. root crops, fruits and vegetables, dairy, fish, poultry and other livestock. At the same time, consumers have been confronted with higher food prices for local and imported foods. Marketing boards and food processing enterprises compete for fresh produce which earn premium prices for domestic consumption and the price of imported foods have soared due to a range of factors – both domestic and global. '

The specific focus of this paper relates to the current state of the agricultural sector in the Caribbean and the dynamics between state Marketing Boards and Agencies and private sector entrepreneurs and agro-processors and how these have impacted upon development of the sector, with particular reference to the areas of value creation and national food and nutrition security. An extensive amount of desk-top research has been undertaken and complemented by specialist input and survey responses contributed by a number of key stakeholders from around the region. This paper presents the results of that research, specialist input and survey responses from three different perspectives:

- The Marketing Board and Agency perspective.
- The Private Sector Entrepreneur perspective.
- The 'Reality Gaps' that exist.

The region's agricultural sector functions in a greater global context, and this is well illustrated by the high level of dependency most Caribbean countries currently have on imported food. Thus, the roles that both public and private sector stakeholders have been and are likely to be playing in future years need to be viewed within that larger context.

The Larger Context

The way in which agriculture in the region has evolved, and will continue to evolve in the future, is influenced strongly by what happens at the international level. Until recently the world has been living in an era of 'cheap food', largely bought about by the introduction of modern farming practices, new technologies, and the 'green revolution'. However, that era is fast coming to an end and countries which have accorded agriculture (and its associated value chain structures) a low priority in national agendas are becoming concerned because the global food supply and demand balance is now quite precarious and it is expected that the cost of basic foods will continue to rise over the coming years (¹).

In the Caribbean region agriculture has not been accorded a high priority in most countries for many years. In a changing world, this has placed the Caribbean countries in a vulnerable position because they are generally high net food importers and have poorly developed local agricultural sectors that are not in a state to be able to respond effectively and efficiently to the changing global food supply situation. The big challenge throughout the Caribbean today is how to transition from a sector that is still largely operating in a historical context towards one which uses modern practices and business models and delivers greater value and a more effective contribution towards national food security and nutrition within the region's economies and to the citizens who live in each.

The Past

The majority of those living in the region understand the factors that shaped agriculture in the past. The colonial powers that predominated over a long period of time basically viewed the Caribbean as a place to produce large volumes of basic commodities at a very low cost which they then took back to their homelands and generated substantial wealth for themselves through trading and value-adding activities. The value chain structures needed to do that were set up and managed by the colonial powers. The infrastructure, the production methodologies, the inputs and the day-to-day societal and economic management processes were largely overseen by the colonial powers. However, all that changed rapidly in the mid to late 1900's, particularly after most of the Caribbean countries became independent in the 1960's and after the EU began dismantling preferential trade arrangements that had been in place for a very long time.

The citizens in the Caribbean islands which became independent were essentially handed over a set of laws and operational structures and processes that had evolved under the colonial powers - their systems, their thinking and their ways of doing things. And that has been the biggest challenge the countries in the region has faced – how to move from being part of a historical 'dependency' arrangement to one within which they have had to build their own identities, value propositions, a new economic and social basis, and future directions.

Agencies such as state-backed Commodity Boards and State Trading Enterprises, set up in the colonial days when commodities were the main focus, still have a major influence on how the agricultural sector is structured and functions in many parts of the Caribbean today. The sector has not been a high priority

¹ <http://www.reuters.com/article/2012/07/11/us-agriculture-oecd-idUSBRE86A0BN20120711>

for most governments for many years and a combination of anachronistic sector structures, outdated and poorly informed sector policies, and limited private sector development has contributed towards a significant decline in agriculture as a contributor to Gross Domestic Product (GDP) over the past few decades, as illustrated for selected countries in Table 1.

Table 1: The declining contribution of the agricultural sector to GDP in selected Caribbean countries (²)

Country	Past Year	% GDP	Recent Year	% GDP	Change
Jamaica	1995	9.0%	2011	5.8%	- 36%
Trinidad & Tobago	1995	2.3%	2011	0.3%	- 87%
St Vincent & the Grenadines	1995	14.1%	2010	6.5%	- 54%
Dominica	1995	18.9%	2010	13.4%	-29%
Saint Lucia	1995	10.2%	2010	3.2%	-69%

Agriculture as a % of GDP generally declines as a country becomes more developed. However, some developed countries have ensured that the agricultural sector continues to rank as a significant component of their modern high technology economies and, in some, it makes a greater contribution to GDP than in Caribbean countries such as Saint Lucia and Trinidad and Tobago. For example, in New Zealand (a small country distant from world markets) the agricultural sector's contribution to national GDP was 4.7% in 2011 and in Australia it was 4.0%. In addition, New Zealand has developed a thriving value-added contribution from the food and beverage sector, especially in the higher end gourmet and fine dining area. Food and beverage exports alone reached US 17 billion in 2008, equivalent to 13% of the country's total GDP of USD 130 billion in that year. The high value-added component of the total food and beverage exports exceeded 40% of that total (³). This figure does not include domestic sales. In a country of just over 4 million people, there are over 2,000 specialty food and beverage manufacturers.

In the Caribbean region, the decline in agriculture has generally not been accompanied by the compensatory development of alternative viable, high value creation sectors to the extent required to assure long-term economic and social improvements. In terms of value-adding in the Caribbean agricultural sector, it is much less easy to quantify than in a country like New Zealand because of the limited statistical records available. However, in Trinidad and Tobago (T&T), based upon an analysis of data from various sources, it appears that the food and beverage sector makes a contribution of about 2.8 % to GDP - 52% of manufacturing which was estimated to be contributing 5.34% to GDP in 2010 (⁴).

Some long-established food processors in the region now import the majority of the raw materials they use. For example, Parry W Bellot Ltd., an agro-processor in Dominica, sourced 80-90% of the raw materials they used from within the country when they started operations in 1944. Even in 1998, 60% of all their raw materials were sourced locally. By 2008, the percentage had dropped to 25%. Cost, the reliability of supplies, and variable quality all contributed to the decline in use of locally-sourced materials, even though the flavour and characteristics of locally-produced agricultural produce were

² <http://www.indexmundi.com/facts/indicators/NV.AGR.TOTL.ZS/compare?country=vc#country=jm:tt> (primary source).

³ http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10813209

⁴ <http://www.indexmundi.com/facts/trinidad-and-tobago/manufacturing>

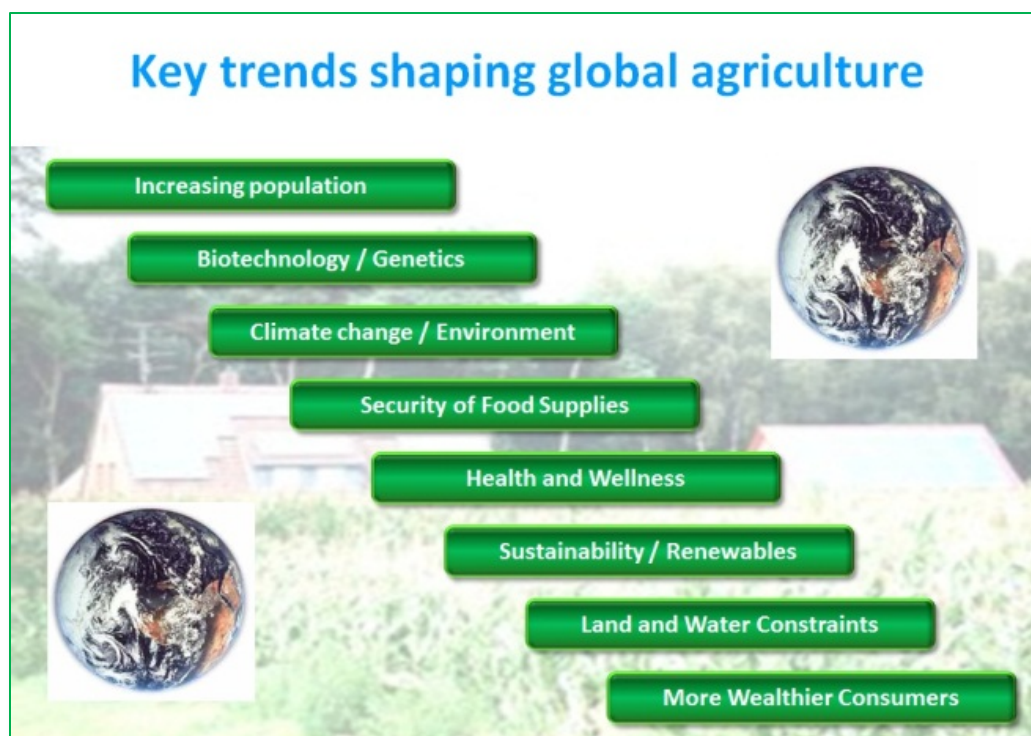
considered to be unique and said to give the end-products a distinctive flavour ⁽⁵⁾. However, there are other agro-processors in the region that still use a high percentage of local raw materials from the farming sector to manufacture their product ranges, such as Baron Foods Ltd. in Saint Lucia. The reason they have been able to do this is because they have developed unique higher value market niches regionally and internationally that make it worthwhile to focus on local sourcing as well as ‘win-win’ supply arrangements with local farmers.

Basically, agriculture in the Caribbean is still largely being viewed and developed by state entities within a set of value propositions and structures that were designed to be relevant in an era that is now well past. How it could evolve in future is being demonstrated by leading-edge entrepreneurs who are better connected with tomorrow’s markets and tomorrow’s opportunities, rather than those opportunities that have now been relegated to the past.

The Future

So, what are the big trends shaping the markets of tomorrow, markets with which the Caribbean agricultural sector will need to connect if it wishes to thrive – whether at home or offshore? On a global scale they can be summed up as shown in Figure 1.

Figure 1: Key global trends shaping the agricultural sector ⁽⁶⁾



⁵ OAS/CCST Sector Foresight & Innovation Study in the Caribbean. Sector Capability Analysis Report: Agriculture. Ian Ivey, OAS/CCST, February 2008.

⁶ NEXT Archives

The world's population recently passed seven billion and, based upon current scenarios, seems likely to peak at around nine billion shortly after 2050 ⁽⁷⁾. From a population and demographic perspective, pressure on the world's food supplies will come from two primary drivers – an increasing number of people to feed and demands for better quality food by the large emerging middle classes, especially in populous countries such as India and China.

Large sums have been invested into research and development (R&D) and commercialisation in the fields of biotechnology and genetics. Until today the returns from such investments have been relatively modest. However, there is no question that both fields offer significant potential, when it comes to food production and national food security and nutrition. Countries such as Germany and India are investing heavily in a biotech future.

The impact of climate change and human activities on the environment is now generally accepted as being something that the human race is going to have to deal with and adapt to. There are many uncertainties associated with both but the general consensus is that severe weather events are likely to become more commonplace. There are also issues of deforestation, land degradation, dwindling water resources, and urban encroachment that are likely to impact negatively upon the agricultural sector in future years, unless high-technology alternatives can be developed - and there is some evidence to suggest that this may be a possibility ⁽⁸⁾.

The security of food supplies is a growing concern at both the global and regional levels. Prices for many basic food commodities have been on the rise in recent years and are forecast to continue rising over the next decade. A number of countries with a high food import dependency, such as China, Singapore and Dubai, have been entering into long-term food production contracts, particularly with other countries in Asia and Africa, in an attempt to secure their future food needs. They have also been investing in agricultural production and food processing businesses in many parts of the world, including Australia and New Zealand, as part of a global 'network of food security' which they are building for the future.

Personal health and wellness is a strongly growing global megatrend. It is being driven by a combination of factors including ageing populations, a changing policy environment, the evolution of the LOHAS ('Lifestyle of Health and Sustainability') generation, and growing numbers of people of all ages who are more concerned about their personal health and wellness. Within this global megatrend, a focus on healthier food is a fast growing trend. This trend is illustrated by two recent examples shown in Figure 2 that are particularly relevant to the Caribbean. In both cases the interest in the health factor associated with both sweet potatoes and cassava has grown rapidly in just a few years. In the case of sweet potatoes the interest first appeared around 2007 and for cassava later at the beginning of 2010.

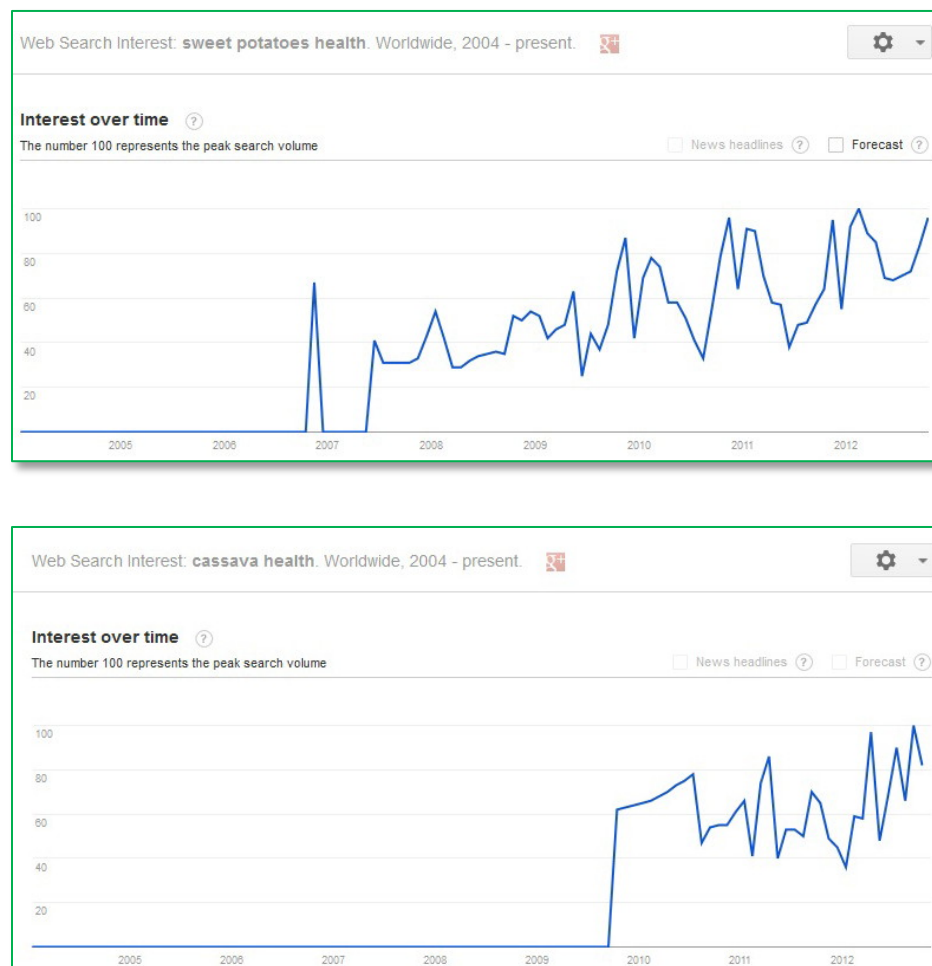
⁷ <http://www.un.org/esa/population/publications/longrange2/WorldPop2300final.pdf>

⁸ <http://www.dailymail.co.uk/sciencetech/article-1190392/Is-future-food-Japanese-plant-factories-churn-immaculate-vegetables-24-hours-day.html>

This growth in interest is of importance to the future of agriculture in the region for two reasons:

- The first is that national concerns at both government and personal levels about the consequences of poor diets and the associated impact on individual health has become a high profile focus area as the health care cost and longevity consequences are enormous.
- The second is because there is a very significant shift in the consumer value proposition when a product moves from simply being a 'food' to being a 'health and wellness' product. There are many examples of such value shifts e.g. manuka honey in New Zealand which lifted in value from USD 5.00/kg retail to over USD 220/kg in a little over 10 years because of a well-documented health and wellness factor. High quality, high cocoa, healthy chocolate products retail at over USD 100 /kg. Other health and wellness products derived from cocoa components, such as cocoa lipstick, retail for as much as USD 1,500/kg. It is a big fast-growing opportunity area.

Figure 2: Google Search Trends for the search word combinations 'sweet potatoes health' and 'cassava health' (⁹)



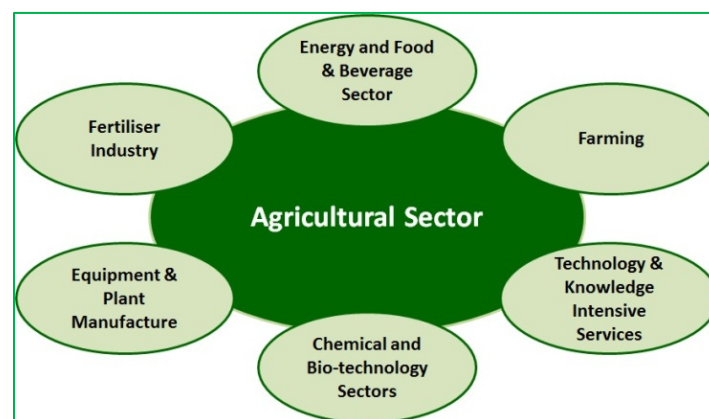
⁹ <http://www.google.com/trends/>

Such value lifts are of real importance when it comes to generating greater value from the agricultural sector in the region and contributions towards improved food security and nutrition. The reasons why include the following:

- Low income people are less able to afford fresh nutritious quality foods as they tend to be more expensive than processed products. This applies in almost every country in the world.
- It is not possible to produce low-cost fresh commodity products on the small scale production units that characterise agriculture in the Caribbean region and expect farmers to escape poverty.
- The age of cheap food is being relegated to history.
- The cost of fresh produce in many Caribbean countries is high in relative terms compared to the cost in developed economies.
- It is possible to generate 400 – 1000%+ more value commercially from basic raw materials produced in the Caribbean region, as a number of entrepreneurs have already demonstrated.

One major challenge that the region has is the lack of a long- term vision for the agricultural sector, one which is based upon an understanding where the world and consumers will be 10 – 20 years from now, and targetting the value proposition areas that are likely to deliver the most beneficial outcomes for the citizens of the Caribbean countries – economically and socially – within both a national and global context within such a long-term vision. In that regard, a recent publication from Germany is of particular interest because it describes sector opportunity scenarios for a range of sectors, including agriculture, out to the year 2030 from both the opportunities and risks perspectives ⁽¹⁰⁾. Germany is one of the world's most successful economies because it continuously focuses on developing an understanding of what the long-term future might look like and how they need to be positioned to have a preferential position in that future space. Their view of the future agricultural sector opportunity focus areas is shown in Figure 3.

Figure 3: The key cluster components in the German 2030 agricultural sector scenario



¹⁰ http://bdi.eu/download_content/Marketing/Deutschland_2030.pdf

In other words, the value-adding opportunities for the sector are much broader than the way the sector is generally considered within the Caribbean. This is the challenge that the region faces when it comes to value creation, food security and nutrition. How can the sector become vibrant and thrive and make a much greater contribution towards the development of the Caribbean countries? It requires bigger picture thinking than is currently the case. A considerable amount of big picture thinking has already been undertaken in the region. However, it has not been translated into sector visioning, policy setting and priority setting processes, as well as implementation processes.

This brief context setting section provides a basis for now examining the role and impact of public and private sector stakeholders when it comes to agricultural sector development in the region in terms of value creation and food security and nutrition.

The Impact of Marketing Boards & Agencies on Value Creation, Food and Nutrition Security

In this section the focus is on the role of state-supported Marketing Boards and Agencies and the impact they have been having on the development of the agricultural sector from the value-adding, food and nutrition security perspectives.

The information gathered from a combination of desk-top research, specialist input and a survey of key agricultural sector stakeholders in both the production and value-adding sectors has been reviewed and it points to a mixed picture when it comes to the roles and performance of the numerous Commodity Boards and state-backed Marketing Agencies that have been tasked with developing marketing opportunities for the agricultural sector. The on-going decline of agriculture as a percentage of GDP is one indicator which suggests that their efforts have been delivering little.

A comprehensive study of the Agricultural Commodity Boards in Jamaica (¹¹) completed in 2010 (its recommendations are being implemented in 2012) says that *'the market characteristics that applied when such entities were established are no longer applicable'*. For example, preferential access to certain markets has disappeared and the demand patterns for certain types of commodities have changed making some less relevant or saleable in today's markets in the form that the Commodity Boards were originally set up to support and promote. Because the level of returns that many farmers have been receiving has deteriorated, they have been switching to alternative crops, such as tomatoes and peppers, which offer them better revenue earning opportunities plus greater resiliency when it comes to storm damage impacts – which can have a long-term effect on grower incomes if perennial crops are damaged. From this perspective, a small positive from the national food security aspect has arisen as growers have shifted away from export crop production to growing crops that supply local market opportunities. The role and effectiveness of the Jamaican Commodity Boards can be judged by recent trends in the volumes of product being exported internationally shown in Table 2.

Table 2: Trends in export production of commodities marketed by state Boards and Agencies in Jamaica

Commodity	Production			
	2006/07	2007/08	2008/09	2009/10
Banana* (tons)	32,428	17,473	39	
Coffee (boxes-Non B-Mtn.)	98,000	95,000	98,000	
Coffee (boxes-B-Mtn.)	480,000	290,000	255,000	
Cocoa (boxes)	76,800	40,600	60,000	120,000**
Pimento (tons)	1,527	1,234	810	
Ginger@ (tons)	241	298	332	
Coconut (dry + jelly)	981,236	641,660	787,835	
Orange/Ortanique (boxes)***	287,000	47,000	237,000	
Grapefruit (boxes)***	33,640	37,000	23,000	

* Export Production (Pre Hurricane Dean which effectively ended exports)

** Projected forecast

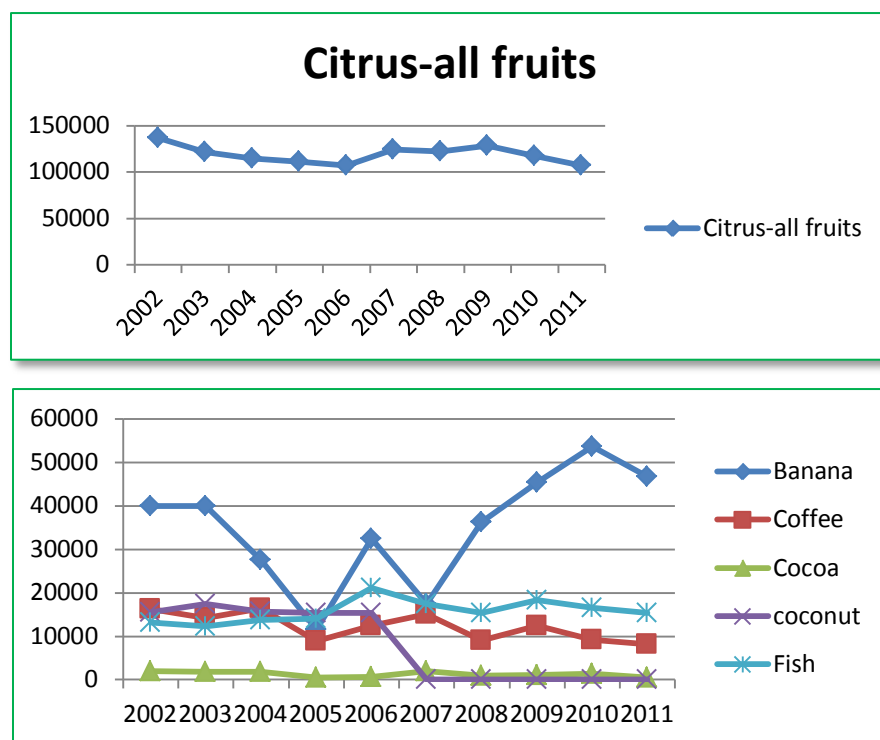
*** Delivered to Citrus Growers Limited

@ Calendar year

¹¹ Consultancy to Rationalise the Institutional Arrangements and Functions Governing the Production and Export of Selected Agricultural Commodities. Final Report, Ministry of Agriculture and Fisheries, Jamaica, April 2010.

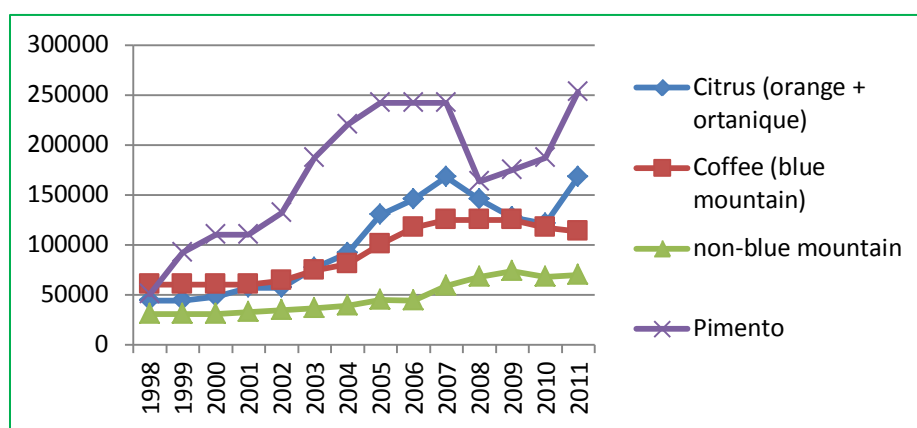
The figures in Table 2 show that, apart from ginger and non-Blue Mountain coffee, export production volumes have been declining overall in recent years. A longer term view of commodity production trends is provided in Figure 4.

Figure 4: Trends in the production of commodities in Jamaica in tonnes/annum (¹²)



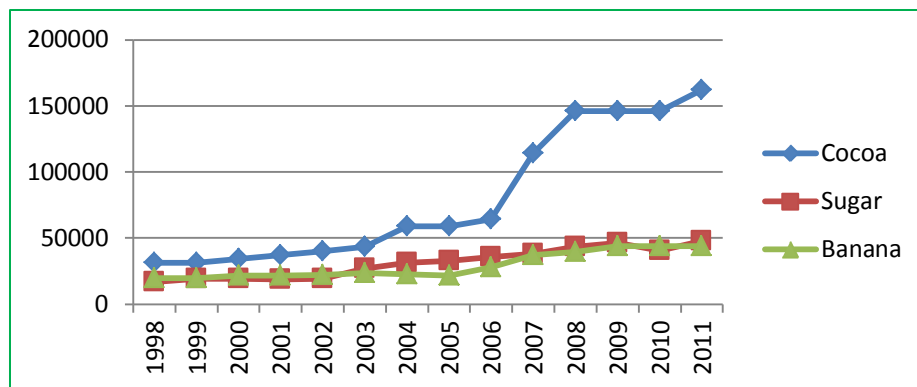
Apart from bananas, production of all these main commodity lines has been in a state of decline for at least 5 years, in spite of a longer term trend towards an improvement in prices as shown in Figure 5.

Figure 5: Trends in the Jamaican commodity prices in J\$/tonne (¹³)



¹² Sourced from STATIN and provided by Dr Chadwick Anderson

¹³ Sourced from STATIN and provided by Dr Chadwick Anderson



Clearly, with the exception of bananas, the growing of such largely traditional commodity crops has become a less attractive proposition to many farmers and, as mentioned previously, a number are now producing shorter term crops for which there is a good local demand and that are less susceptible to adverse weather conditions, because of their short production lead time.

All (but one) of the Jamaican Commodity Boards, as well as the Export Division of the Ministry of Agriculture, have been loss-makers '*weighed down by their high administrative costs*'. There also appears to have been a significant amount of '*creative accounting*' as the Boards all reported a trading surplus in recent years. However, a closer look at their accounts found that non-trading revenue from other activities, including investments and levies, has been included in those surpluses. The Commodity Board Report found that all were struggling with high inventories and their commodity supplies were not aligned with their '*order books*'. In addition, there had been a limited focus on value-adding (¹⁴).

One of the real issues associated with the Boards has been a lack of separation between commercial and regulatory functions. A Ministry official was quoted as saying, '*the Government does not belong in marketing*'. They have also been functioning as trading rather than marketing entities and, according to sources quoted, are often viewed as '*buyers of last resort*'. This is a hangover from the old commodity marketing era where volume was more the focus than value per unit. A process is underway in Jamaica to undertake a radical rationalisation of the entire Commodity Board and State Marketing set-up. This rationalisation is likely to include the removal of much statutory support, the winding up of some of the existing Boards, and the evolution of a public private partnership approach tasked to generate greater value by becoming more market driven, strengthening branding, improving value-adding and adopting more highly targeted marketing strategies.

The Barbados Agricultural Development and Marketing Company (BADMC) is another entity that is not held in high regard by a number of key stakeholders, particularly in the private sector. The author has met several staff members employed in this organisation who had become quite disillusioned about the way in which the organisation was set up and operated. One leading agricultural sector entrepreneur says that the organisation is '*overstaffed, top-heavy with administrators and has few staff with the appropriate level of technical expertise*'. The organisation does not appear to have any targets in place

¹⁴ <http://jamaica-gleaner.com/gleaner/20120711/business/business5.html>

that it is required to achieve - targets which would improve the viability and economic contribution made by the agricultural sector towards the country's GDP (¹⁵).

The BADMC is a state trading enterprise (STE) that has been tasked to deliver in a number of areas including fresh produce importing as well as local agricultural development, market information, and the encouragement of value-adding. The statutory and commercial activities that this entity is required to deliver are confused and complex. Like many STEs in the region, Board appointments have tended to be political and so those who are tasked with overseeing the activities and development of such entities are not always the most appropriate. According to an extract from a white paper provided to the author, the BADMC and its predecessors, the BADC and BMC, are not well regarded by the Barbados farming sector. From their perspective it has been given a *'fail grade'* because it has been unable to *'respond effectively and in a timely manner to the need for expanded domestic output and the manner in which it handles market regulation and price stabilization support. Additionally, it has failed the government on a number of occasions by not being able to enact government mandates expeditiously'*. The white paper also goes on to state that, *'if the BADMC is to function as an effective STE, a sound commercial approach to its operations will have to be taken with performance and output being the drivers of the organisation. Greater consideration will have to be given to domestic market distortions and strategies put in place to prevent cannibalism of local private sector businesses'*.

The issues associated with the BADMC are similar to those identified in the Jamaican review of that country's Commodity Boards and STEs i.e. operating in an environment of conflicting agendas due to the combination of statutory and commercial requirements allocated to such bodies, a lack of targets and performance monitoring, and a disconnect from markets and market dynamics. According to the Barbados private sector source, the BADMC has become a political rather than commercially focused entity, has failed to deliver any sort of sustainable wins, and has been charged with inadequately executing programmes that it has been mandated to manage.

Competition from state-backed Marketing Agencies has been reported from growers and agro-processors located in several countries. For example, the Saint Lucia Marketing Board is reported to have been competing with local private sector groups to supply the local hotel and restaurant sector. There are also issues with working conditions that have recently led to industrial action within the organisation (¹⁶). In St. Vincent and the Grenadines, small scale pepper sauce manufacturers complained several years ago that a state-owned supermarket chain (which has now been divested) was competing with them for supplies of hot peppers and that the chain had pursued ill-conceived strategies which seriously distorted the market for their products (¹⁷). Both examples indicate the problems that arise when the state tries to enter the commercial area. Instead of assisting development of the agricultural sector in a planned, coordinated, and constructive way, state-backed entities often tend to do quite the opposite and leave farmers and value-adding private sector stakeholders somewhat

¹⁵ Personal communication, including the White Paper – name withheld for confidentiality reasons

¹⁶ http://www.thevoiceslu.com/local_news/2012/june/28_06_12/Marketing.htm

¹⁷ OAS/CCST Sector Foresight & Innovation Study in the Caribbean. Sector Capability Analysis Report: Agriculture. Ian Ivey, OAS/CCST, February 2008.

disappointed and disillusioned. It seems that there has been a real lack of mutually beneficial public-private partnerships (PPPs) when it comes to agricultural sector development.

The Grenada Cocoa Growers Association (CGA) is backed by statutory powers that grant it the sole right to sell the island's cocoa bean production for both local and export use, with the exception that individual cocoa producers can process their own beans into value-added products and export these if they wish. A similar statutory monopoly situation has been the case with the Grenada Cooperative Nutmeg Association (GCNA). The impact of Hurricane Ivan in Grenada in 2004 was devastating for the cocoa and nutmeg sectors. That country produced over 2,500 tonnes of nutmeg prior to the hurricane in 2004. By 2008 production had slumped by 90% to just 250 tonnes. Before the hurricane hit, the country produced 1.7 million pounds of cocoa. In 2006 production had slumped to around 10% of that figure – just 169,000 pounds (¹⁸). Interestingly, in 2008 when the author visited both the GCNA and the CGA, they were still largely doing what they had always done – in spite of the massive slump in their product supply – although there was talk at the time about amalgamating the two groups to reduce overheads and streamline operations.

In terms of value generation, one senior person associated with the GCNA in 2008 said to the author that if they could get a 10% premium for their growers then they felt they were *'doing a good job'*. However, other more innovative and competitive private sector driven cooperative enterprises in SVG and St. Lucia were achieving a 100% - 500% premium for their growers with other crops (¹⁹). The local Grenadian entrepreneur, Mr Denis Noel, was adding even greater value to basic nutmegs through his well-known 'Nut-Med' product range, which is now sold in many countries internationally, mainly through network marketing (²⁰).

The statutory powers accorded to the CGA in Grenada made it challenging for two local entrepreneurs to establish and grow their businesses. The first example is the Grenada Chocolate Company. One of its co-founders, Mott Green, said that when he first came to Grenada in the early 1990's he was saddened to see the state of the island's cocoa industry. Growers were receiving very low returns for premium types of cocoa – Trinitario and Criollo. Many were abandoning their properties. Green decided he was going to set up a business to make a premium organic chocolate that would be sold in elite markets internationally and help reinvigorate the sector. When he approached the CGA to see if they would be prepared to supply organically produced cocoa beans they said it was simply not possible. And there was another issue. If cocoa growers were certified organic, they were required by law to supply their beans to the CGA for trading. At the time, the CGA told Green that they were not prepared to separate organic beans from non-organic beans if growers became certified and supplied this type of premium beans to them. They would all just be handled as cocoa beans by the CGA with no differentiation that would support a value-adding initiative (²¹).

¹⁸ Pers. comm., Grenada Cocoa Association.

¹⁹ Pers. comm., Mr Jethro Green, Caribbean Farmers Network, SVG.

²⁰ http://www.rienet.net/ri_cfm?cat=Value%20Propositions&ID=397

²¹ OAS/CCST Sector Foresight & Innovation Study in the Caribbean. Sector Capability Analysis Report: Agriculture. Ian Ivey, OAS/CCST, February 2008

This meant that Green had to adopt a radical approach to establishing the business he was so passionate about. Firstly, he had to fund the organic certification of cocoa estates which he assisted to rehabilitate so that the end chocolate products would have the type of international organic certification required for top end international markets, such as those in the USA and UK. This he did. Secondly, to get around the monopoly powers of the CGA, he had to make all the cocoa growers who were supplying organic certified beans shareholders in the manufacturing entity that produces what is now one of the most highly regarded organic chocolate products in the world (²²).

Another entrepreneur based in Grenada, Ursula Williams, developed a unique high value product in her home kitchen which combined the island's unique high quality cocoa beans with a special process used for many years in Germany to produce a very popular high value product called 'gebrannte Mandeln' (essentially a caramelized sugar-coated almond). The end-product she created was unique as no-one had developed a product of this type anywhere in the world. It was well received by those who tried it. However, to take it from the kitchen to an export business became a real challenge. Because the CGA had a monopoly on the sale of cocoa beans, she had no option but to buy from them to make this premium product. She describes the beans she was supplied with by the CGA as follows:

'My first purchase of 100lb from the warehouse in Sauteurs was of such bad quality that I had to throw half of it away. The Cocoa beans were extremely dirty, small, and infested with moths. It was like a bag of butterflies. I complained but was not offered any compensation.'

After this negative experience she tried approaching local growers in order to see if she could buy Class 1 premium quality beans directly from them. However, the growers said this was not possible because they would be breaking the law. During 2012 (now based in Germany so classified as an offshore buyer) she approached both the GCA in Grenada and the Cocoa and Coffee Industry Board (CCIB) in T&T in an attempt to buy Class 1 cocoa beans to produce this premium product for the German market, a market which offers considerable potential for a product of this type. Neither entity acknowledged or responded to her repeated enquiries about pricing, shipping and handling. As a result she gave up trying to access cocoa beans from within the Caribbean region and now buys them from Thailand, something she regrets because she lived for twenty-five years in Grenada and had a desire to contribute something back to the local economy (²³).

This casual commodity-based 'one size fits all' approach to satisfying the specific needs that these two Grenadian entrepreneurs experienced is also similar to that of several innovative T&T entrepreneurs who wanted to access premium beans to make premium high value products. Indeed, one CCIB Board Member (also a cocoa grower) commented to the author of this paper in 2009 that all the Grade 1 cocoa beans that the CCIB handled were sold to offshore buyers and that the local manufacturers of cocoa-based products would only be able to buy the lower grades, which included poor quality broken beans, from the CCIB – the monopoly supplier. This meant that any entrepreneur based in T&T wishing to develop a premium product would have to do so using inferior grade raw materials. Compared to

²² http://www.springwise.com/eco_sustainability/in-uk-carbon-neutral-chocolate-bar-shipped-wooden-sailboat/

²³ Pers. comm., Ursula Williams, September 2012

international buyers, who had access to the best quality raw materials produced in T&T, these local high value-adding entrepreneurs were placed at a competitive disadvantage. The best beans were being sold to overseas buyers for between USD 3 – 4 /kg whilst local entrepreneurs who were manufacturing products within T&T and selling them at an end value of USD 120/kg plus were not able to access high quality raw materials because overseas clients were being accorded preferential treatment.

However, several entrepreneurs who have developed and are marketing high grade, high value cocoa based products have been able to bypass this situation. For example, the family of one T&T entrepreneur owns a cocoa estate and so she has been able to use the top class beans produced on that estate to develop her own estate-linked premium grade ‘Cocobel’ products – which retail at up to USD 250/kg. In another case, because there was no premium cocoa-based raw material available in T&T, since no-one was producing a premium grade chocolate base, the entrepreneur concerned had to import the chocolate base material from a Belgian supplier. However, that supplier did not manufacture and supply a 100% Trinitario cocoa derived product, only blends. Thus the quality of the base material was not of the standard that the entrepreneur wanted to produce her premium range of ‘Gina’s’ chocolate truffles. Over time she was able to develop a relationship with the entrepreneur behind ‘Cocobel’, Isabel Brash, and access the high quality processed Trinitario cocoa base she needed to manufacture her premium truffles. She was then able to add a label on her packaging stating ‘100% Trinidad cocoa’, a move that differentiated her product in the premium end of the market and has enhanced sales. Her customers were quick to tell her that they noticed a real improvement in the taste after she shifted from the Belgian base product to the T&T produced base material.

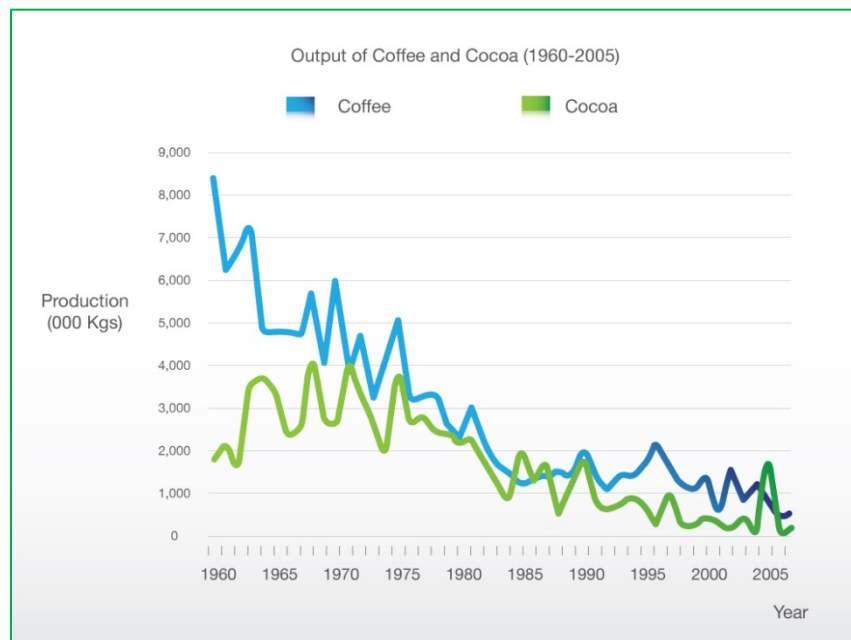
On the other hand, a long-time cocoa grower in T&T feels that the CCIB has benefitted him personally (although he has only ever dealt with the Board for his entire cocoa growing life). He says the existence of the Board has meant that he has not had to spend any money on marketing and that they have provided him with advisory services, best practice production training, access to high yielding cocoa varieties developed in association with the Ministry of Agriculture, and a dryer facility which enables growers to sell ‘wet beans’ and not require them to finish them off and deliver the beans in a dry state. In other words, the CCIB has largely disconnected the grower from the end-customer. However, the same grower also says that he feels that they are not receiving the price that they should be and that there are issues with the way CCIB appointed buyer agents have been purchasing and paying growers for cocoa beans. With such a disconnection this should not perhaps be surprising.

In spite of the grower’s comments about the CCIB’s positive role, the actual production graph for cocoa in T&T, shown in Figure 6, points to the fact that there has been a major decline in production of these high quality beans over the past few decades ⁽²⁴⁾, a trend that has been happening in the other Caribbean islands. In 2011, total cocoa production in T&T was estimated to have been just over 400 tonnes. The cocoa grower surveyed also said that in recent years several private cocoa bean exporters have been active in the market and they have been paying better prices more promptly, which has spurred the CCIB to improve its payment schedules and practices. However, such buyers can only supply

²⁴ <http://www.undp.org.tt/TT-Today/Trinidad-Tobago-Output-of-Coffee-Cocoa-1960-2007.html>

the export market from a single estate source that produces over a certain level of cocoa under the CCIB's monopoly mandate.

Figure 6: Trends in cocoa and coffee production Trinidad and Tobago



Isabel Brash, the entrepreneur who set up 'Cocobel' in T&T, says that the CCIB has improved its focus and performance in some areas in recent years and has been helping local entrepreneurs to promote their businesses. The Board is also focusing on resurrecting the cocoa industry and improving productivity and fermentation practices. However, she says that the price offered to growers of TTD 19/kg (approximately USD 3.00) is not enough to ensure a viable future for cocoa growers. She pays a premium to her family estate to ensure that they benefit from the premium she is deriving from the market for her high end products. She says that the CCIB should not have a monopoly on the marketing of cocoa beans as it disadvantages local manufacturers. She feels that the Board should act more as a facilitator supporting supply and pricing arrangements between growers and manufacturers locally and globally and not act be acting as a commercial intermediary ⁽²⁵⁾.

It appears the monopoly situation that the CCIB has enjoyed for many years is still largely protected. However, according to the cocoa grower surveyed, the small amount of competition introduced by several private exporters, within very restrictive boundaries set by the CCIB, has improved prices and payment schedules and enhanced interest in growing the crop in recent times. There are some 'black market' exporters also operating in T&T, according to a senior representative of the CCIB ⁽²⁶⁾.

²⁵ Pers. comm., Isabel Brash, Cocobel, Nov. 2012.

²⁶ Pers. comm., Chief Quality Officer of CCIB, Nov. 2012

The involvement of the state in agricultural sector Marketing Boards and Agencies has led to many controversies which are often a distraction to the objectives that they have primarily been tasked with delivering upon. For example, in T&T in October 2012 both the Boards and staff members of the Trinidad and Tobago Agribusiness Association (TTABA) and the National Agricultural Market Development Corporation (NAMDEVCO) were involved in controversies which questioned their accountability, credibility, actions, and fiscal responsibilities. These two entities are tasked with improving the productivity and marketing of the country's agricultural sector from both the local market and export perspectives. However, as has been the case in Jamaica with the Commodity Boards and Ministry of Agriculture involvement in production and marketing, confused agendas appear to have led to a lack of performance and the backing of initiatives which are not necessarily in the best interests of the nation in terms of sector productivity, food security, nutritional improvement and value creation. Such agendas are often politically driven and, as has been the case with the previous T&T government's 'mega-farm' projects, many of the projects and activities fail to deliver an outcome that actually benefits the citizens of the country economically and socially.

Currently TTABA has large outstanding debts from both private and public sector stakeholders that have resulted because the Agency has been tasked with managing funds supplied by the government through its National Agri-Business Development Programme. There are always risks with such programmes but some of the entities to which loans were made have a highly questionable background. There have also been reported problems with product losses and selling products below cost, including to staff members who have then used them to generate personal benefits. Senior staff members at the Agency are vigorously defending their position ⁽²⁷⁾. The CEO has recently been told he must 'resign or be fired' ⁽²⁸⁾. The confusion of political and commercial agendas is likely to be part of the root cause of the challenges this organisation is facing.

TTABA recently announced that it planned to develop a 100 acre sweet corn project in T&T that would provide 40 farming jobs and opportunities for 200 on the job trainees. It is being touted as one project that will help reduce the country's TT\$ 4 billion food import bill ⁽²⁹⁾. As a commercial proposition, this project appears to be more political than commercial in terms of its focus. In a developed country, such as New Zealand, only one person would be required to grow 40 ha. of sweet corn up until the time of harvest because everything would be mechanised. Even at harvest, machine harvesting would be used if the sweet corn was to be processed. Efficient sweet corn production, for both the processing and fresh markets, is a low labour input process. Once again, the confusion between commercial and state agendas comes into play. The T&T government still sees primary agriculture as being a sector that will provide growth in employment. However, in developed nations (which T&T can be considered as being given an average GDP/capita of well over USD 20,000 on a purchasing power parity basis for the past three years), few people are employed in primary agriculture. Many times more are employed in the transport, services, food-processing, beverage, marketing, retailing, hospitality, and other value-adding sectors.

²⁷ <http://www.guardian.co.tt/news/2012-10-28/ttaba-owed-3-million>

²⁸ <http://www.guardian.co.tt/news/2012-11-04/resign-or-be-fired>

²⁹ <http://www.guardian.co.tt/business/2012-10-14/100-acre-sweet-corn-project-plum-mitan>

The Board of NAMDEVCO was sacked in late October 2012 due to a number of issues including irregular hiring practices and controversies surrounding the appointment of insurance service providers (³⁰). Once again, the confusion of agendas between commercial and government is part of the reason this situation has developed. Such controversies do little to advance the agricultural sector. Indeed, they tend to be disruptive and hinder the implementation of initiatives designed to move the sector forward. There are key roles that these agencies can play to assist the agricultural sector to develop, improve national food and nutritional security, encourage exports, and ensure the required levels of standards compliance are achieved.

A T&T farmer who, in a Caribbean context, has a relatively large production unit of 24 ha and grows a range of vegetables, says that NAMDEVCO has been important for his business as it has helped develop export markets for his produce and has also secured supply arrangements for the local market e.g. with supermarkets. In order to export produce, it must meet international importing country standards e.g. pesticide residue standards. Export farms are certified by NAMDEVCO. Such certification results in the following benefits for farmers:

- The produce is of a higher quality.
- Technical assistance (including the use of integrated pest management) is available.
- First preference as a supplier for new and existing markets – both local and export.
- Access to the Agricultural Development bank's 'Gro Safe' loan package.
- Training programmes based on needs assessment.

NAMDEVCO Field Officers are responsible for keeping a record of what is being planted, expected quantities for harvest and harvest times, and spray schedules in certified farms. However, according to the grower, there are some areas where NAMDEVCO needs to improve including:

- Post-harvest handling – some produce is not being handled as well as it should be for export.
- A formal contract agreement specifying quantities, quality and prices for produce is required. Currently this does not exist.
- The range of produce that NAMDEVCO handles and the value-adding they provide is limited.

A former manager at NAMDEVCO adds that the agency supplies real-time market information for both local and export markets, quality assurance, value chain infrastructure (markets, packing facilities) and creates market opportunities. However, he adds that in spite of NAMDEVCO's efforts, agriculture has continued to decline as a contributor to T&T's GDP, and that there is a need to adopt a more selective approach to the future of the sector's development including:

- Focusing on specific crops that are the 'best bets' for T&T.
- Looking at realistic opportunities for import substitution and/or replacement.
- Improving the nation's nutrition and food security e.g. increasing production of sweet potatoes.
- Supporting medium to large size farmers and assisting them to access the resources they need to become highly efficient systems-based producers.

³⁰ <http://www.guardian.co.tt/news/2012-10-28/namdevco-board-sacked>

- Develop value chains.
- Focus on capacity building of farmers and strengthen farmer groups.
- Encourage group marketing of products (and the appropriate branding and quality control).

It is important to understand that NAMDEVCO is a state-backed organisation of choice and that farmers are not compelled to supply them or comply with the certification standards which they require their registered suppliers to meet for exporting. David Thomas and Rachel Renie, Directors of Market Movers in T&T, say that this is a real challenge for them (³¹). Their business depends upon supplying customers with low or no spray 'healthy' fresh produce. However, many farmers are using chemicals at levels which both find quite alarming, and even more so as there does not appear to be any official monitoring of chemical residues in fresh produce supplied to the local market. David Thomas describes one situation where he visited a farmer who had two areas of vegetables under cultivation – one in front of his house which was subjected to an intensive chemical spray programme from which he sold harvested produce on the local market, and another area behind his house that was largely unsprayed and which supplied healthier produce that he used to feed his family. In other words, he was not prepared to allow his family to eat the produce that he was growing for sale to the public.

This is an issue that Lennox Lampkin, Executive Director of the Chamber of Agriculture and Nutrition in St. Vincent and the Grenadines, is concerned about at both the national and regional level. He says that there are no real controls on the use of agricultural chemicals throughout the region and that their use is being abused by many farmers. Such abuse is a not only a threat to human health but these chemicals also enter into natural eco-systems leading to long-term damage. There are chemicals being used in the region which have been banned in many developed nations. There are many other issues relevant to the agricultural sector which Lampkin says are being ineffectively addressed in the region. These include:

- Standards.
- Communication and collaboration.
- Political manipulation of the agricultural sector.
- A top-down approach by state agencies and Ministries. They do not listen to farmers.
- Holding on to sectors that are no longer viable or relevant e.g. bananas.
- A lack of organisational capacity at the farmer level.
- Poor and unfocused policy development and a lack of integration of agricultural, health and tourism policies.

Lampkin is of the view that these are all key areas which need to be addressed if the agricultural sector is to be correctly positioned from the value creation, food and nutrition perspectives and thrive in the 21st century. Some of these areas can only be facilitated and overseen by state entities in many situations, particularly when it comes to the safety and quality of local market produce supplies.

One example of a positive contribution from a state-backed agency comes from the island of Nevis where a quite unique project was facilitated by the local Ministry of Agriculture - rather than being a

³¹ Pers. comm., David Thomas, Nov. 2012.

regulated initiative (³²). It involved bringing together both growers and clients through what could be described as a coordinated brokering role by the Ministry. Prior to 1990, agriculture on the island was primarily production driven and not market driven. As a result, farmers had to live in the hope that someone would buy what they grew without determining in advance whether that would actually be the case.

This changed with the development of the 5 star Four Seasons Resort on Nevis in 1990 which offered 400 beds and employed 575 people. The Ministry engaged the management of the hotel in discussions to develop a model for supplying local produce on a planned and organised basis through a single interface. That interface was established through the formation of the Nevis Growers Association (NGA) with twelve founder members. The crop requirements for the hotel were identified as well as a pricing model that was acceptable to both producers and the end client. Six crops were chosen to be part of a market-led supply arrangement with the hotel – all higher value. They were tomatoes, sweet peppers, cucumbers, lettuce, watermelon and cantaloupes. A planting schedule and allocation of production quantities to the various farmers was agreed and enacted. In association with the Ministry, the NGA met monthly to review production targets and fine-tune their cropping schedules to ensure they were going to be able to deliver to the client's agreed requirements.

A small group within the Ministry acted as an intermediary to facilitate the supply and demand side of the agreement. They provided advice and assistance to the farmers to ensure that they were doing all they could to honour their supply commitments. They also assisted with washing, grading and labelling the produce received from the farmers to ensure it met the standards agreed to with the client. A system was put in place that verified everything at the farmer, intermediary, and client levels. The hotel paid for the produce, which was delivered to them twice weekly, once a fortnight direct to the Ministry of Agriculture which deducted 5% for its intermediary role and paid the balance to the farmers. A great deal of effort was invested into ensuring that communications between all parties were maintained and that any issues likely to arise, such as a production shortfall, could be rectified by advanced planning. Assistance with input purchases and short-term credit facilities were also provided by the Ministry to enhance the successful operation of this market-driven model. A similar model was developed to supply local meat products to the same resort that met their specifications.

The main lesson learned from this model is the need to have an impartial facilitator who manages the producer-client relationship from a neutral position, who supports communications on a regular basis, who oversees planning and coordination, who provides an understanding of and assistance with supplying certain needs, who can help address supply/demand variations, and who can help make bold decisions when it comes to dealing with those who fail to deliver what they have committed to do – on either side of the equation. Since its establishment in 1990, this model is said to have worked well in Nevis and additional producer/client marketing groups have been established. This is a good example of an effective PPP that delivers mutual benefits.

In T&T the Seafood Industrial Development Company has made a useful contribution towards the development of the sector, according to a senior representative of the private enterprise group,

³² The Nevis Model, Samuel Powell, Ministry of Agriculture, Nevis (supplied by Ms Racquel Williams de Ezquea)

‘Women in Fishing’. She says that the state-backed company has provided assistance to her and her members in a number of areas including funding, business certification, marketing support and the provision of business advisory services. They have also played an important role in modernising the sector and improving linkages between the main value chain players in the sector. However, she feels that whilst the Company has a number of knowledgeable and passionate staff members, they are slow to respond to and process requests for assistance and this has hindered the development of businesses within the group. She feels that they lack business sense and urgency and are somewhat inefficient in the way they deliver their services. She also says that they lack ‘*international connectedness*’ (³³).

In Guyana, the impacts of state-backed Marketing Boards and Agencies are viewed differently by different stakeholders. For example, a rice mill owner and operator, who is also a Technical Director on the Guyana Rice Development Board (³⁴), says that the Board has had a positive impact because it does not have monopoly marketing rights and so is operating in a competitive market situation. This Board Director not only sells rice and its by-products to the GRDB but also directly to overseas buyers. He says that the Board has been responsible for opening up a large export market in Venezuela, which now takes 80% of Guyana’s paddy rice production at ‘*an attractive price*’. In addition, the Board assists farmers in the areas of technology, varietal improvement, and the adoption of modern efficient production practices. The Board also undertakes R&D and has a strict quality control system in place, including inspection processes, to ensure high standards are maintained. The GRDB is funded through a combination of commissions on sales and government sources. The Director says that the Board operates on a very tight budget and, as a result, has not been able to invest in upgrading its own technology and laboratory equipment. He says that rice production in Guyana has risen in each of the last three years.

A small agro-processor in Guyana, who produces and markets coconut water, has had mixed experiences with several Marketing and Commodity Boards in that country. One of those entities is the Guyana Marketing Corporation (³⁵), which is tasked with acting as a facilitator in the following fields:

- Facilitating linkages between buyers and sellers, both local and overseas.
- Providing packaging services for exporters of fresh produce.
- Providing documentation services to exporters of agricultural commodities.
- Offering temporary cold storage facilities (at a cost) to exporters of agricultural commodities.
- Offering refrigerated transportation services to its clients for a fee.
- Facilitating communication between the Guyana Agro-Processors Association (GAPA) and other agencies such as the Guyana Sugar Corporation (GUYSUCO).

He says that his business has had minimal involvement with the GMC and that has been in areas such as assistance with documentation for export and the provision of a booth at GUYEXPO where their coconut water product was launched and publicized. The Board has also assisted with training in HACCP standards, although this small agro-processor says that much of the training value associated with such

³³ Pers. comm., Ms Bernadette Fonrose, President of Women in Fishing, T&T, October 2012.

³⁴ Pers. comm., Mr Farouk Yousef, Technical Director, Guyana Rice Development Board, October 2012.

³⁵ www.newgmc.com

programmes tends to be lost at the small business level as they do not have the funding to invest in the upgrades necessary to meet such standards. He was also introduced to several potential overseas buyers by the GMC. However, the business not been able to take advantage of many of the services offered because their small agro-processing operation has limited production capacity. The owner says that a more comprehensive vertically and horizontally integrated approach is needed for small businesses such as his to benefit.

Overall, the business owner says that development of the agricultural sector is not happening at the pace it should because of a lack of such integration, which includes a need for an appropriate sector funding system. Entities, such as the GMC, are not making an effective contribution because they are not in formal structured collaborative relationships with other key institutions charged with agricultural development. He adds that much of the agricultural sector development approach in Guyana tends to be shaped through ‘disconnected’ individual donor country funded projects rather than through a nationally coordinated programme. Without having a holistic context, this businessman says that the role and responsibilities of such Boards can be difficult to define.

In terms of the impact of state-run Commodity and Marketing Boards on the private sector, the way the Guyana Sugar Corporation (³⁶) operates has affected small agro-processors in a similar way to the Cocoa Boards in Grenada and T&T. This is because GUYSUCO is a state-owned enterprise and has large contracts to supply sugar to offshore buyers which, in the past, it has been struggling to fill. As a result, small local agro-processors have been subjected to fixed sugar quotas which restrict the development of their businesses. A recent report says that GUYSUCO is suffering from serious financial challenges and poorly executed capital development projects that have failed to perform (³⁷). Others say that GUYSUCO is overstaffed. In spite of those challenges it seems that GUYSUCO is likely to have a good year from the production perspective with the annual production target set for the year being exceeded (³⁸). However, its major commitments to export may be affecting the ability of local agro-processors to develop their businesses.

The Marketing Board and Agency Perspective in Summary

In summary, state Marketing Boards and Agencies, to which Caribbean governments have often granted wide-ranging statutory powers, appear to have had a mixed track record, tending negative overall, when it comes to the development of the region’s agricultural sector and value-adding agro-processing businesses. In some instances such entities have been direct competitors with private sector stakeholders and have made it more challenging for them to develop their businesses. In other instances some have made it much more difficult for local entrepreneurs to develop businesses that have a large value-adding component. Indeed, many of the entities, as the Jamaican Commodity Board Report and the Barbados BADMC white paper have described, appear to have had a negative impact upon agricultural sector development value-adding and national food and nutritional security. The statistical trends relating to the sector support such a contention.

³⁶ <http://www.guysuco.com/>

³⁷ <http://www.kaieteurnews.com/2012/08/07/no-rush-to-condemn-guysuco-arrangements-for-overseas-boss/>

³⁸ <http://www.guyanatimesgy.com/?p=3053>

Part of the reason for such a situation is that many of these entities are based upon models that may have had some relevance at the time they were originally set up many decades ago. However, in today's world many have become an anachronism and are struggling to deliver measurable benefits in the three areas covered in this paper. However, there are some positives that various sector stakeholders have experienced in their dealings with such state-backed entities, such as the Nevis facilitated local market development model. NAMDEVCO in T&T also appears to have assisted some farmers to become export certified and also take advantage of local market supply arrangements.

The area which seems to be a consistently significant issue is the roles they have been tasked to play under their state-backed mandates (which change regularly). Where they operate in a competitive environment and have no monopoly control, they have tended to be somewhat more innovative and proactive, e.g. NAMDEVCO in T&T and the Guyana Rice Development Board. However, their agendas are often complicated by political issues as well as confusion between commercial and statutory activities. It is rare for appointed bodies run by the state to operate in an innovative and entrepreneurial way because they are generally not overseen and managed by entrepreneurial and innovative persons. If the region is to resurrect its agricultural sector, improve its value generating potential, and improve national food security and nutrition, then innovation and entrepreneurship needs to be a major component. This is an area that is explored in more depth in the following section.

The Impact of Entrepreneurs on Value Creation, Food and Nutrition Security

True entrepreneurs are leaders when it comes to innovation, and this applies in the agricultural sector as much as it does to any other sector. The author of this paper has met with and interviewed many entrepreneurs throughout the Caribbean (over 180 in a range of sectors) including a number who are generating substantially higher value in the agricultural sector than the state Marketing Boards and Agencies. Such entrepreneurs have developed far more market-aligned and customer-connected modern value chain structures than has typically been the case by such Boards and Agencies.

In this section of the paper, a number of specific entrepreneur case studies are used to illustrate the difference in approach that they have adopted compared to the approaches that have generally been followed by the state-backed Marketing Boards and Agencies. The case studies presented reflect what some of the best and most innovative entrepreneurs in the region are doing to achieve success. In the author's view, it is important to learn from such leading-edge entrepreneurs as they provide a valuable indication of what could be achieved by the agricultural sector in the region if an appropriate vision, set of long-term goals, and a more commercial, market-oriented focus were to be adopted on a broader scale. Before examining these specific case studies, it is useful to understand the key success factors associated with Caribbean entrepreneurs when it comes to developing a successful business – which is essentially a reflection of their ability to innovate. Ten such factors have been identified as a result of the entrepreneur interviewing process the author has pursued throughout the region over the past five years and are shown in Figure 7.

Figure 7: The ten key success factors associated with successful Caribbean entrepreneurs (³⁹)



All of the more than 180+ successful entrepreneurs that the author has interviewed in the Caribbean have been excellent in at least seven of the ten areas depicted in Figure 7. All these areas reflect innovation components essential to the set up and functioning of an effective and fully functional value chain. Effective and efficient value chains are critical for any business to thrive.

³⁹ Ian Ivey, NEXT

The ten success factors are explained in more detail as follows:

- **Funding and Scaling-up:** Finding ways of gathering sufficient funds together to start an enterprise and then leveraging cash flow to expand operations until the point where they have achieved sufficient momentum to attract the attention of traditional financial institutions. This is not ideal but it is the way most successful entrepreneurs start and build their businesses.
- **Value Chains:** Not just producing something for sale but also ensuring that an entire infrastructure is in place which maximizes value through connecting with end-customers and clients, as well as intermediaries, in a two-way exchange process and offering high value propositions as well as timely, customer-friendly and cost-effective delivery.
- **Science and Technology:** Every successful entrepreneur applies science and technology in some form or another as a value generating tool, sometimes in a very simple way. In some cases it is by adopting R&D carried out by an institution but more often than not it is something done in-house as part of a problem solving or adaptive innovation process.
- **Value-adding:** Successful entrepreneurs know how to add often quite substantial value to basic commodities or ideas (often in the order of hundreds of percent) and develop a more resilient business model that is based upon higher per unit values and associated higher margins. It is always strongly linked to customer wants and desires - both known and/or assessed.
- **Novel Uses:** This is critical for generating value. An entrepreneur often focuses on finding a market space that few others operate in and so is then able to exploit niche opportunities where customers and clients are prepared to pay a premium for something that is either unique (one of a kind) or world class (superior quality, functionality, effectiveness, service-based, and only available from a restricted range of sources).
- **Sustainability:** This is also a factor that characterizes many upcoming entrepreneurs in the Caribbean region. They tend to focus on sources and resources that will be available in 'perpetuity' rather than those which are coming under pressure and may be depleted in future years. They also tend to pursue 'greener' operational models. One very relevant current example is the Conch World Farm in the Turks & Caicos Islands (⁴⁰). The US is pushing for conch to become an endangered species which, if accepted, could lead to the demise of a number of Caribbean businesses processing and selling 'wild' conch meat. The Conch World Farm may become the only sustainable supplier of conch in the world, until others copy the sustainable production model that they have developed.
- **Cooperation:** Without exception, successful entrepreneurs in the region cooperate or collaborate with others to generate mutual and synergistic benefits. Not one of them has developed their successful businesses alone, although the entrepreneur alone is the driving force behind their success. There are always at least two to three key people or entities that they are close to who help them to achieve such success. They are generally not part of their businesses.
- **Branding:** Successful entrepreneurs understand that their brand is their promise – a promise which will guarantee that what they supply will meet or exceed a customer or client's

⁴⁰ <http://www.compasscayman.com/observer/2012/10/28/The-incredibly-eatable,-but-endangered-conch/>

expectations and, if it doesn't, they will promptly take action to rectify any issues. It is not about fancy logos and imagery. It's all about meeting or exceeding customer and client expectations (⁴¹).

- **Marketing:** Most have developed quite unique structures and networks which increasingly include virtual components and that enable them to connect with high value niche markets locally and globally. Few advertise through traditional channels. Word of mouth is a common marketing channel. Most successful entrepreneurs operate in the modern technology driven networked age.
- **Exporting:** The size of the local market is so small in most Caribbean countries that it provides very limited prospects for most true entrepreneurs who wish to achieve a high degree of success with unique products and services. Many successful entrepreneurs in the region sell a significant amount of their products/services to customers and clients who live offshore. This means that they must meet stringent export and ethical standards in a range of areas. However, this is not always the case and there are some entrepreneurs who have established and exploited quite unique local market niches. These should not be overlooked in any study of this type and are likely to grow in importance and value if the GDP/capita in each of the Caribbean countries can be improved e.g. 250% by 2030 as envisaged in the Jamaican Vision 2030 National Development Plan (⁴²).

To illustrate the difference between the approach being adopted by successful entrepreneurs in the agricultural and agro-processing sector in the Caribbean region in areas related to value creation and food security and nutrition, compared to state Marketing Boards and Agencies, eight specific case studies are described in the following sections. These case studies illustrate a significant degree of commonality in the way that these businesses have achieved success, which is something that needs to be integrated into regional thinking when it comes to resurrecting the agricultural sector and its contribution within the region. A qualitatively based scorecard, based around the ten key success factors (which really are a measure of the level of innovation that an entrepreneur has demonstrated), is included by the author in each of these eight case studies to illustrate where such commonalities lie.

Baron Foods – Saint Lucia

Whilst the current economic situation in Europe and North America has had short-term negative impact upon sales in the third quarter of 2012, they are now picking up again and the Saint Lucian based agro-processing business, Baron Foods Ltd, continues to be a leading-edge model in the region when it comes to value creation, enhancing local agricultural production levels and value chain development (⁴³). Ronald Ramjattan, the owner and Managing Director of the company, has focused on all the ten key success factors to ensure the successful development of his business. The Baron Foods scorecard for each of the ten key success factors is shown in Table 3.

⁴¹ <http://www.amazon.com/The-Innovation-Playbook-Revolution-Excellence/dp/047063796X>

⁴² <http://www.vision2030.gov.jm/>

⁴³ http://www.ttfi.net/article_view/180

Table 3: Baron Foods Scorecard for the Ten Key Entrepreneurial Success Factors

Success Factor	Achievements	Score
Funding/Scaling Up	<ul style="list-style-type: none"> Funded his start-up by selling himself and his plan to family and friends – who backed him. Scaled up his business by investing in core strengths rather than every area of business. 	9
Value Chains	<ul style="list-style-type: none"> Built a strong value chain through contractual arrangements and support initiatives with farmers in Saint Lucia combined with key marketing and brand alliances in export markets. 	10
Science & Technology	<ul style="list-style-type: none"> Focused on innovative product formulation and product excellence at all times. 	9
Value Add	<ul style="list-style-type: none"> All his products add substantial value to basic raw materials, 95% of which are grown and sourced from Saint Lucian farmers for the company's top 15 product lines. Product formulation, consistency, uniqueness, presentation, and marketing alliances all contribute to the value-adding process. 	8
Novel Uses	<ul style="list-style-type: none"> One excellent example is the commercialization of banana ketchup, the company's most popular product line internationally. 	8
Sustainable	<ul style="list-style-type: none"> This has been achieved through on-going contractual arrangements with local farmers guaranteeing consistent raw material supplies, farmer support services and financing, and staff support schemes. The company has very low staff turnover. In addition, by establishing additional processing operations in Grenada and T&T, Baron Foods is increasing its future resiliency by making sure all its operations are not based on one island. This helps 'hurricane proof' the business, something which is essential throughout much of the Caribbean. 	8
Cooperation	<ul style="list-style-type: none"> The company has developed a number of key collaborative alliances with farmers, staff and offshore buyers. However, there have been challenges working within Saint Lucia with the state Marketing Board, which Ramjattan says has been 'opportunistic' and unwilling to collaborate in the national interest in the local food production and marketing area. 	7
Branding	<ul style="list-style-type: none"> The majority of his product is processed and packaged for over 30 house brands in different international markets. The Baron Foods branding strategy is to manufacture high quality consistent products that 'delight' end customers – this is the promise that backs the house brands which have contracted the company to supply. 	10
Marketing	<ul style="list-style-type: none"> The company has had to invest very little in marketing because of the alliances and contractual relationships with overseas house brands and marketing groups. The company simply has to maintain these relationships and continue to deliver excellent quality. 	10
Exporting	<ul style="list-style-type: none"> By far the majority of the Baron Foods products are exported. Markets include North America, Europe and a number of Caribbean countries. To cater to growing demand and increase the resiliency of the business, a processing plant has been established in Grenada and another will shortly be operational in T&T. 	10
Overall Score (maximum 100)		89

The reason this entrepreneurial business is relevant to this paper is because it's owner has taken responsibility for making sure that all the key components of the value chain are in place and functioning synergistically to ensure that it complies with standards, is customer focused at all times, and provides a model of stability for all stakeholders involved. He is also increasing its future resiliency by expanding its production base into Grenada and T&T. According to Ramjattan, Baron Foods is the only agro-processing business in the Caribbean which is FSSC 22000 and HACCP certified, something which is essential if products are being targeted at highly developed more sophisticated markets.

In summary, Baron Foods, in association with its collaborative alliance partners, has built an entire value chain structure from grower to end-customer which is based upon a commitment to excellence, mutual benefits, the development and production of high quality and innovative products, and operation to

international standards. In other words, they are honouring their brand promise internationally from the small island nation of Saint Lucia.

Market Movers – Trinidad

This entrepreneurial business is included as a case study because it also involves developing an entire value chain and a focus on delivering excellence to a particular group of end-customers who are more concerned about their personal nutrition and health and wellness than the majority of the population in T&T. The combination of food types and sources, nutrition, and personal health and wellness is one which is driving some major trends in the food and beverage sector internationally.

The two Directors who founded Market Movers in T&T just over three years ago, Rachel Renie and David Thomas, are both young and entered business because they believed that there was a growing demand from consumers in two areas:

- Food sourced from suppliers who were vetted for the safety, quality, and low or no chemical status of their products.
- Providing a 'gift of time'.

Prior to starting the business both worked in a bank. Thomas had a passion about healthy food and began supplying ten customers associated with the bank with selected high health produce lines. The response was positive and so both he and Renie decided to quit their jobs and establish an online business that would enable customers to order a range of carefully sourced and vetted fresh and packaged products that would be delivered to their door (⁴⁴). Within two years their customer base grew to five hundred and a year later to over six hundred, including an increased number of specialist wholesale purchasers. The Market Movers scorecard is shown in Table 4.

Table 4: Market Movers Scorecard for the Ten Key Entrepreneurial Success Factors

Success Factor	Achievements	Score
Funding/Scaling Up	<ul style="list-style-type: none"> • They received a small loan from the Youth Business Trust of Trinidad and Tobago of USD 1,600 – which, along with some very long hours and dedicated effort, was just enough to get their business established. • Since then they have funded growth of their business through cash flow. However, it is constraining their ability to grow and they are looking at options to finance business growth. 	7
Value Chains	<ul style="list-style-type: none"> • They have established and manage a complete value chain from producer through to the end customer. This means they have been able to manage and maintain standards in all areas of the value chain. There are also supplier arrangements in place that provide producers with secure on-going supply arrangements. • They have had some limitations with online payments due to the lack of cost-effective e-commerce transaction processing services in T&T. However, they are introducing a PayPal option shortly. 	8
Science & Technology	<ul style="list-style-type: none"> • A number of their growers are using modern protected cropping systems which enable higher quality crops to be produced with reduced chemical inputs. They offer a number of 'spray-free' products including lettuce. They have also built their business around an ICT-based online model. 	9

⁴⁴ http://www.ttfi.net/article_view/477

Value Add	<ul style="list-style-type: none"> • The value-add they offer is higher quality, healthier food which has been screened and approved before purchasing and for which people are prepared to pay a premium. • The door-to-door delivery service also adds a convenience factor which is of real value to many busy consumers – a ‘gift of time’. 	9
Novel Uses	<ul style="list-style-type: none"> • Market Movers provides their customers with a range of unique ideas about ways they can use the fresh and packaged produce they have access to through the company. 	7
Sustainable	<ul style="list-style-type: none"> • The supplier arrangements are based upon a mutual win-win basis which benefits both producers and customers through supply guarantees. • Low and no chemical produce are more environmentally friendly. • They provide a recycling service for all the empty plastic milk containers customers accumulate. • They reduce transport and emission levels by delivering to customers’ premises and homes on a route and schedule basis. 	9
Cooperation	<ul style="list-style-type: none"> • Market Movers have been proactive in establishing and building relationships with producers and suppliers who meet their exacting standards and have been able to develop win-win associations. • They also have a great reputation for listening to their customers and adding lines and services to meet their specific needs. 	9
Branding	<ul style="list-style-type: none"> • Their branding is their promise – to deliver high quality, high health products at a time and on a day nominated by the customer. The logo is secondary. It is their focus on delivering on their promises that has led to the business growing rapidly. 	9
Marketing	<ul style="list-style-type: none"> • Predominantly viral and word of mouth. The aim now is on improving sales/customer and they are making advances in this area e.g. by supplying smaller specialist wholesale customers who are more interested in long-term mutual benefits than the ‘cheapest short-term deal’ – which the supermarkets and major fast food chains tend to demand. 	7
Exporting	<ul style="list-style-type: none"> • Currently they are not exporting. However, the virtual marketing model is developing to the point where this can be facilitated. They have already been approached by several pepper sauce manufacturers in this regard. However, they are reluctant to collaborate and market under a single brand which makes marketing much more of a challenge. 	5
Overall Score (maximum 100)		79

This is an example of a business that is encouraging the production of healthier and better quality local produce, which is setting and managing the standards and conditions of supply as a responsibility to their customers, and which is in tune with a strong growth market niche that tends to be favoured by higher wealth customers. It is also a complete value chain structure which is integrated from end to end and so can be managed to deliver the best possible results for all participating stakeholders. Market Movers also has potential to expand their online value chain based business model into export markets in future years and they are in the early stages of exploring this option.

Tobago Estate Cocoa, Tobago

This ‘business cluster’ developed by Duane Dove from Tobago is an excellent example of how setting up a complete value chain structure provides a basis for generating high value from a basic commodity product, Trinitario cocoa, which is typically sold to international traders at low values – generally at between USD 2.50 – 4.00 depending upon from which island it is sourced. Many say such values do not reflect its inherent worth, as evidenced by the wide range of high value products being made by both local and offshore entrepreneurs from Trinitario cocoa that are retailing in the USD 100/kg plus market bracket. Although Dove was born in Tobago and worked on the family’s cocoa estate whilst young, he

began his career as a professional sommelier with a focus on rum and spent a great deal of time working in Europe where he developed special relationships with some key people in Sweden and France ⁽⁴⁵⁾.

Tobago Estate Chocolate 70% cocoa is retailing in top end outlets in Europe for USD 150 /kg and more ⁽⁴⁶⁾. That is because everything that Dove has done has focused on the passion he had for the potential associated with high quality products from the Caribbean as well as on end-customer value creation and engagement in a special experience, rather than on a basic commodity volume times price approach. To deliver the types of products and experiences high-end customers expect, he began by using the best cocoa genetic material, selected in conjunction with the Cocoa Research Institute, to plant his Tobago Estate. Once it was producing he focused on producing a single estate chocolate, in the same way premium wine has been produced and marketed in traditional producer countries such as France and Germany for hundreds of years. More than that, he established a retail outlet in Sweden through which only selected high-end chocolate products were available. From this base he developed marketing relationships with elite retailers – both online and high street - in other European markets, including France and the UK. Back home in Tobago he developed a cocoa immersion experience on his estate complete with tours and a restaurant.

Dove has developed a cocoa value creation model that embraces a whole range of opportunity areas including production, agro-tourism, fine dining, elite product exports and marketing, online and high street market availability, communities of interest, and excellent promotion. The greatest difference between Dove and the bulk of the Caribbean's cocoa industry is that he viewed the opportunities from the market end and worked back from there to connect customers with his home-island based passions. The Tobago Estate scorecard is shown in Table 5.

Table 5: Tobago Cocoa Estate Scorecard for the Ten Key Entrepreneurial Success Factors

Success Factor	Achievements	Score
Funding/Scaling Up	<ul style="list-style-type: none"> Because he became successful as an international sommelier, he was able to fund the development of his business cluster largely through his own resources. 	9
Value Chains	<ul style="list-style-type: none"> Tobago Estate Cocoa has a totally integrated value chain set up that connects high-end elite foreign customers to the products and experiences associated with Dove's home island of Tobago. Value is generated at every level through multiple channels – experiential, immersion, high street, virtual, local and international. It is an excellent model that should be emulated by more entrepreneurs from the Caribbean. 	10
Science & Technology	<ul style="list-style-type: none"> Perhaps the most significant S&T contribution towards this business has been the cocoa clonal development work carried out at the Cocoa Research Unit in T&T. The best biotypes were selected to plant on the Tobago Estate production unit and provide the basis for generating excellence throughout the value chain. 	10
Value Add	<ul style="list-style-type: none"> The value-adding factor is multi-dimensional. It is not only through the single estate product distinction but also through the way it is packaged, presented, where it is marketed and the clip-on experiences that customers and clients can choose from – e.g. agro—tourism and immersion experiences. Everything is 'elite'. 	9
Novel Uses	<ul style="list-style-type: none"> Apart from being the world's first single estate chocolate product, the experiential factors associated with the estate in Tobago itself provide a uniqueness that few, if any, cocoa estates in the world offer. 	7

⁴⁵ http://www.rienet.net/ri_cfm?ID=511&cat=Value%20Propositions&Setform=511&CFID=5387646&CFTOKEN=49043205

⁴⁶ http://www.thewhiskyexchange.com/B-519-Tobago_Estate.aspx

Sustainable	<ul style="list-style-type: none"> The sustainability of the business is based upon the development of a multi-faceted integrated value chain and business model which has been founded upon the best lines of cocoa available in the world. It is a largely resilient model, although vulnerable to estate damage if an extreme weather event was to hit the island of Tobago. 	6
Cooperation	<ul style="list-style-type: none"> Development of the value chain structure involves a number of key stakeholders in both T&T and offshore. Strong relationships have been built with such stakeholders for both business and support purposes and these have played a critical role in the success of the Tobago estate business cluster. 	8
Branding	<ul style="list-style-type: none"> The brand is high quality and offers a unique promise – sharing something which only comes from one place in the entire world and which is of very high quality. 	9
Marketing	<ul style="list-style-type: none"> This has largely been achieved through the network of alliance partners set up by Dove as the result of his sommelier years. However, he also has had a strong following online through his on-going sommelier related activities (⁴⁷). A lot of the marketing is viral. 	8
Exporting	<ul style="list-style-type: none"> A large part of the Tobago Estate's chocolate is sold through top end markets, mainly in Europe. 	9
Overall Score (maximum 100)		85

What Dove has been able to achieve is a level of excellence that is not common in the Caribbean but which is more so in highly developed mature markets. His international experience has played a key part in developing such excellence. If Caribbean countries are to have a strong thriving agricultural sector that is compatible with what the region can do well, if developed, packaged and marketed effectively, issues such as food security and nutrition can be more effectively addressed because businesses of this type increase overall national wealth and GDP/capita, thus making it easier for citizens to afford increasingly expensive food.

This is a quite opposite approach towards doing business when compared to that of traditional commodity based-agriculture, which most of the region's Marketing Boards and Agencies are still largely pursuing today. It is a major paradigm shift from being 'production focused' to being 'market focused'.

Clive Bishop – St. Vincent & the Grenadines

This is a very small business but a quite unique case study that the author documented several years ago. It deserves mention because it describes the way that one entrepreneurial farmer has developed a far more secure basis for his agricultural production business than most traditional production-focused agriculturalists (⁴⁸). Instead of just producing crops and then hoping someone might come along and buy them, St. Vincent based Clive Bishop checked out which particular crops certain retailers and hotel operators based in the Grenadines would be interested in buying on a regular secure supply basis. The start point for determining pricing was the high cost of imported fresh produce. For example, imported Romaine lettuce heads cost EC\$ 6.50 /lb. He calculated he could grow them for EC\$ 0.50 a head. There was a good demand for this product as well as a few other specialist fresh produce lines.

He set up a value chain structure which included a 'grow-to-order' approach to production, the provision of cool-bins to keep the produce fresh in transit to buyers located in different parts of the Grenadines, and door-to-door delivery. As a result, he was able to generate high returns off a few acres

⁴⁷ <http://www.rumchocolate.com/>

⁴⁸ http://www.rienet.net/ri_.cfm?cat_ =Value%20Propositions&ID=492

of land (in excess of EC\$ 100,000/acre per annum). This is another example of customer-driven production and service provision rather than production driven commodity-based agriculture. Bishop's business scorecard is shown in Table 6.

Table 6: Clive Bishop's Business Scorecard for the Ten Key Entrepreneurial Success Factors

Success Factor	Achievements	Score
Funding/Scaling Up	<ul style="list-style-type: none"> Basically this is a self-funded enterprise that has evolved after a long involvement with agricultural production in SVG. 	8
Value Chains	<ul style="list-style-type: none"> It has a strong value chain set up within St. Vincent and the Grenadines, from production through to the end clients, which embraces transport, a cool chain system and a close working relationship with other farmer and the end-buyers. 	9
Science & Technology	<ul style="list-style-type: none"> The development of cool-bins to maintain the quality of the fresh produce from farm-gate to the end-buyers premises is one example of a technological innovation which few growers in the Caribbean utilize. 	8
Value Add	<ul style="list-style-type: none"> The main basis for value-adding is the guarantee of quality and consistency of supply to end customers. The arrangement between Bishop and his buyers in the Grenadines enables fresh produce to be supplied on a pre-agreed price basis over a period of time thus ensuring longer term stability and the generation of mutual benefits. 	7
Novel Uses	<ul style="list-style-type: none"> There are no specific novel uses excepting that Bishop concentrates on growing about half a dozen lines of higher value products, such as Romaine lettuce, which satisfy a particular buyer need. 	4
Sustainable	<ul style="list-style-type: none"> In this case, the relationship between the buyers and Bishop is delivering long-term mutual benefits and a consistency of results for both. Other selected growers also participate in the supply arrangement to provide some spread of risk and ensure the expected volumes of fresh produce can be delivered on each programmed delivery date. In addition, Bishop has played a lead role in developing the Annova Organic Growers group in SVG – a healthy food trend related move that is in tune with the expectations and demands of an increasing number of higher value visitors to the Grenadines. 	9
Cooperation	<ul style="list-style-type: none"> There is a good level of collaboration between Bishop and other farmer suppliers, end customers, and transport providers. 	8
Branding	<ul style="list-style-type: none"> In this case the brand is the promise – the delivery of good quality produce on time and at the agreed price. 	7
Marketing	<ul style="list-style-type: none"> This is basically a network marketing set up with a defined group of stakeholders designed to service a particular market niche. 	9
Exporting	<ul style="list-style-type: none"> This is an import substitution rather than export business with the imported produce prices being the benchmark upon which the pricing for Bishop's products is set. 	5
Overall Score (maximum 100)		74

Dasheen Growers Network – St. Vincent & the Grenadines

This example is also included because, even though it has been extensively used as a case study throughout the region, it is the principles that have been applied to add value and improve farmer income security which underpin a model that can be used to improve the productivity and revenue position of the many small farmers throughout the region (⁴⁹).

Essentially, this network marketing model, developed with the support of the Caribbean Farmers Network (CAFAN) and the Eastern Caribbean Trading Agriculture and Development Organisation

⁴⁹ Profile of the Small-Scale Farming in the Caribbean, Barbara Graham, FAO, October 2012.

(ECTAD), uses mobile phone technology to match offshore buyer requirements with local farmers' production through a networked rather than cooperative approach. Orders for dasheen from European buyers are generated and the volumes required at a quoted price secured through the mobile phone order confirmation process. The produce is then sent to a village-based packing and handling centre where local villagers clean, grade, and pack the dasheen in accordance with the standards required by the EU and the end clients. Thus, the farmers and their network have taken on the responsibility of ensuring that every container of produce that is dispatched from SVG will be guaranteed delivery. This has been a successful model which, at the time the network was studied in 2009, had doubled the income of participating small rural farmers and substantially increased the area of dasheen being cultivated on St. Vincent (⁵⁰). The Dasheen Growers Network scorecard is shown in Table 7.

Table 7: The Dasheen Growers Network Scorecard for the Ten Key Entrepreneurial Success Factors

Success Factor	Achievements	Score
Funding/Scaling Up	<ul style="list-style-type: none"> This has essentially been a social entrepreneurship business development that has used whatever financial resources from donor sources, within CAFAN/ECTAD, and from the grower community that have been available to support its successful evolution. 	9
Value Chains	<ul style="list-style-type: none"> The value chain in this case really begins with end customers in Europe who have committed to buy specific grades of dasheen at a specific price to sell in European specialist fresh produce market niches. It ends with growers who produce the dasheen and the communities which are responsible for grading, packaging and quality control. CAFAN and ECTAD have both played a strong facilitation, intermediary management and coordination role. 	9
Science & Technology	<ul style="list-style-type: none"> The biggest technology component of this case study is the use of mobile phones to support communications between individual farmers, a central coordinating point and the quantity and price purchasing process. In addition, a certain amount of R&D has been taking place to develop some form of processing option for the 40% of dasheen produced that doesn't meet the end buyer standards. 	9
Value Add	<ul style="list-style-type: none"> The greatest value-adding is through being able to grade and pack a consistent line of product which commands a 100% premium over that which dasheen growers could realise in the SVG local market. 	8
Novel Uses	<ul style="list-style-type: none"> At the time of doing this case study, there were no particular novel uses associated with this product. However, efforts were being made to develop some form of processed product from the lower grade dasheen that was not suitable for export. 	3
Sustainable	<ul style="list-style-type: none"> By connecting the dasheen growers through a network which allowed each to maintain their independence but to benefit financially through a centrally coordinated marketing approach, the area planted in dasheen in SVG grew substantially. It is a more resilient model. It has improved the prospects of a number of rural communities which have been struggling with poverty. 	8
Cooperation	<ul style="list-style-type: none"> This is a unique model because Caribbean farmers tend to be individualistic and not keen to work in strict cooperative structures. The network model encourages collaboration whilst preserving farmer independence. 	9
Branding	<ul style="list-style-type: none"> The branding is essentially the guarantee of quality and consistency that the network, though its own self-discipline, delivers to the European clients. 	5
Marketing	<ul style="list-style-type: none"> This has been largely the domain of CAFAN/ECTAD who identified potential importers in Europe and then set up the network model to be able to deliver to their requirements. 	8
Exporting	<ul style="list-style-type: none"> 60% of the dasheen the network growers produce is exported. 	9
Overall Score (maximum 100)		77

⁵⁰ http://www.ttfi.net/article_view/292

This example is particularly interesting because of the innovative collaborative approach adopted. Collaboration in such initiatives is often a challenge in the Caribbean because of the highly independent and individualistic nature of the people involved. But this case study demonstrates a way in which such collaboration can be encouraged without such persons losing their independence by using modern technology.

Goodfellow Farms - The Bahamas

This case study has also often been used as an example of how to generate high value from small agricultural production units in the Caribbean. In fact, IICA produced a comprehensive feature publication about this business several years ago (⁵¹).

In summary, before Karin and Ian Goodfellow set up their production unit on four hectares of land on New Providence Island in The Bahamas, they approached all the major hotels and restaurants on the island and asked them which fresh produce was the greatest challenge for them to source. Fresh green leafy vegetables topped the list because virtually all were imported from the USA and by the time they arrived on the island, normally once a week, they were usually past their best. A particular niche opportunity for ‘mini-greens’ was identified and so the Goodfellows then went about setting up a technology-backed easy-to-manage production system that would match their clients’ potential needs with their production capabilities – in other words the entire business was market driven. They set up a buyer purchasing system through which each buyer could confirm their order the night before it was required for delivery. Basically the expected size of these orders had been determined during the market research phase prior to setting up the business.

The Goodfellows set up a media-based hydroponics growing system that would enable them to produce a crop of mini-greens on approximately seven day cycles and scheduled planting and harvesting to provide continuity of supply. In addition, they always ensured they had a 20% supply buffer which meant that if any of their clients had an unexpected upsurge in demand, they would be able to accommodate them. The crops are largely produced without chemicals and so are healthier than the majority of other locally grown and imported products. After harvesting, the mini-greens are washed, packed, chilled and delivered directly to the customer’s doors by midday on the agreed day of delivery.

What the Goodfellows have developed is also largely a ‘hurricane-proof’ production system because, prior to a hurricane crossing Grand Providence Island, the Goodfellows sow seeds on as much of their unplanted areas as possible thus ensuring within a few days of the storm passing, a new crop of mini-greens is ready for harvest. In early 2009, when this story was documented, the mini-greens they produced were selling for about USD 60 /kg compared to imported lettuce, which were costing about US\$ 5/kg. The Goodfellows have built a small cluster of businesses around their agricultural production unit including a restaurant serving largely home-grown healthy food products, a farm retail outlet and gourmet store, and a providoring business for the yachting community. The Goodfellow Farms scorecard is shown in Table 8.

⁵¹ <http://repiica.iica.int/docs/B2086I/B2086I.PDF>

Table 8: The Goodfellow Farms Scorecard for the Ten Key Entrepreneurial Success Factors

Success Factor	Achievements	Score
Funding/Scaling Up	<ul style="list-style-type: none"> The Goodfellows had significant resources of their own that they had accumulated earlier during their careers in other fields. 	9
Value Chains	<ul style="list-style-type: none"> They built a complete integrated value chain from production through to the client's door that made it easy for clients to order and have their needs and expectations delivered to. 	9
Science & Technology	<ul style="list-style-type: none"> The media-based hydroponics growing system is a simple relatively low-tech system which has a built in buffering component that protects the crops if, for example, there is an irrigation system failure. The irrigation system is computer controlled. They also have a satellite weather monitoring system on site so that they can be prepared well in advance of any approaching extreme weather event. 	9
Value Add	<ul style="list-style-type: none"> The value-adding from a seed to a high quality, gourmet end product is huge as reflected in the end price received for the mini-green product. The Goodfellows have also added value through their door-to-door ordering and delivery system, the on-farm restaurant, the gourmet shop and the providoring business. 	9
Novel Uses	<ul style="list-style-type: none"> The product itself is quite unique and novel as it is simply not available from any other source in the Bahamas. The way the fresh produce they grow is used in their on-farm restaurant is also quite novel. They offer some quite unique signature dishes. 	7
Sustainable	<ul style="list-style-type: none"> Sustainability is being achieved through their strongly client-focused approach, through their low chemical production techniques, through the 'hurricane proofing' system they have in place and through the cluster of complementary businesses they have built. 	9
Cooperation	<ul style="list-style-type: none"> Cooperation and collaboration between clients and Goodfellow Farms is of the highest order and leads to a broad range of mutual benefits, beyond the mini-greens supply chain. They are also able to supply special client needs in areas other than fresh produce through a Miami-based operation, which is part of their business cluster. 	9
Branding	<ul style="list-style-type: none"> Their brand is their promise – to deliver excellence to their clients at their door and to cater to their needs in every way possible. 	7
Marketing	<ul style="list-style-type: none"> After the initial proactive effort to build relationships with their key clients, it has largely been through word of mouth and reputation, plus some promotion through tourism channels of their on-farm restaurant and experiences. 	9
Exporting	<ul style="list-style-type: none"> They are focusing on import substitution, predominantly in the green leafy vegetables market focus area. 	6
Overall Score (maximum 100)		83

This case study is a good example of how success can be achieved within a small island nation if a business is focused on satisfying the needs of specific groups of clients and customers. It is in contrast to the Commodity Boards in Jamaica which have been described as being production-driven rather than supplying forward orders based upon market needs.

Montpelier Farms - Antigua & Barbuda

This is another case study that has often been referred to in the region and which is worthy of inclusion in this paper because it involves a large-scale horticultural production unit as a fundamental part of a larger value chain structure which also embraces packing, post-harvest handling and local and international marketing from a Caribbean base (⁵²).

Micha Peretz, an Israeli, teamed up with a local Antiguan business partner in 2000 to ensure he had strong local connections and began developing a seventy hectare property that is today known as

⁵² http://www.ttfi.net/article_view/300

Montpelier Farms. The aim was to grow, pack and deliver a select range of products not only for local customers but also offshore clients in the UK and USA with whom he set up mutually beneficial arrangements. In order to be able to do this he needed to ensure that he could schedule and manage his production to be able to deliver upon the commitments he had made to clients both within Antigua and offshore. This resulted in the installation of a sophisticated highly efficient drip irrigation system which included a back-up desalination unit to assure supplies of water, even during the most severe droughts. He built seven hectares of greenhouses and protected growing houses to optimise the quality of his outputs. He also focused on a limited range of high value crops including cantaloupes and melons (which are highly regarded overseas), butternut squash, a mini papaya that is particularly sought after in Europe, specialist tomatoes and sunflowers.

At the time this business was studied in 2009, the Farm was highly profitable without a need for subsidies or support, exported over 33% of its total production and was expanding its local market business further by expanding its grower supply base and complementing its local supermarket supply arrangements by linking up with cruise ship operators and satellite growers. That meant that the Farm was making a significant contribution towards local fresh produce supplies. The Montpelier Farms scorecard is shown in Table 9.

Table 9: The Montpelier Farms Scorecard for the Ten Key Entrepreneurial Success Factors

Success Factor	Achievements	Score
Funding/Scaling Up	<ul style="list-style-type: none"> It was funded through a joint venture with a local Antiguan partner. 	9
Value Chains	<ul style="list-style-type: none"> The value chain embraces both local and international components. In essence, contracts of supply were set up with buyers on and offshore to balance production and market requirements. It includes packing and post-harvest facilities to ensure that client standards could be met in both types of markets. The central packing and marketing facility also offers advisory services to independent growers who wish to supply pre-determined volumes of produce at a fixed purchase price and have it graded, packed and marketed on their behalf. 	8
Science & Technology	<ul style="list-style-type: none"> The introduction of the mini papaya is one example of an innovative product type that suits a particular market niche. Building a reverse osmosis water treatment plant to ensure that the Farm had sufficient water for its highly efficient Israeli designed drip irrigation system is another example of the use of science and technology to enhance agricultural productivity and quality. 10% of the property is allocated for greenhouse and protected crop culture and plays a big part in ensuring export quality product can be grown. 	9
Value Add	<ul style="list-style-type: none"> The introduction of the mini papaya is an example of value-adding for specific customers. Another value-adding component in the Montpelier Farms business is the modern packing and post-harvest handling facility, which is being used to handle produce from other farmers in Antigua. 	7
Novel Uses	<ul style="list-style-type: none"> The only novel use associated with Montpelier Farms is the sunflowers they grow which are used for local decorative purposes. They are the only suppliers of sunflowers in Antigua. 	5
Sustainable	<ul style="list-style-type: none"> The installation of a desalination unit coupled with protected cropping environments provides a greater guarantee of absolute production levels as well as quality. Expanding the packing and marketing operation to handle produce from other local farmers, as well as a Guyana development, increase the resiliency of the business. 	8
Cooperation	<ul style="list-style-type: none"> The main area of cooperation and collaboration is with local and offshore buyers to ensure their requirements are met in the best possible way. 	7

Branding	<ul style="list-style-type: none"> Montpelier Farms uses a single brand approach for all the produce it handles from its own production unit and on behalf of independent grower suppliers. They ensure that a consistent standard is maintained that meets buyer requirements both on and offshore. 	8
Marketing	<ul style="list-style-type: none"> Marketing is done through key partner alliances in Europe, North America and within Antigua. Such partners are either large retailers or well-positioned importer/distributors. 	8
Exporting	<ul style="list-style-type: none"> 33% of all their produce is exported. 	7
Overall Score (maximum 100)		77

The reason this Farm has been a success in a small high cost Caribbean island nation is because it has been developed and run as a totally commercial business from day one and has focused on specific product lines for which there is a high demand and which generate higher values. Running it as a business has meant developing a good understanding of what customers and clients want in both local and export markets and then developing a value chain and system to deliver to their expectations. For example, Montpelier Farms decided to grow a mini-papaya that weighed 500 – 800 grams for the European market rather than the traditional large papayas typically grown in the Caribbean. The reason for this was that over 70% of households in large European urban environments have only one or two inhabitants. The small papaya was a real marketing success for Montpelier farms because it better catered to the expectations of the one and two person households. A large papaya would have been beyond the consumption capacities of such small households. Micha Peretz is in the process of developing a similar large operation with satellite growers in Guyana where water is more plentiful and there are many *‘enthusiastic youthful farmers’*.

The Poultry Sector - in particular Guyana and Jamaica

One sector that has developed strongly in the larger Caribbean countries, relative to other meat products, is the poultry sector, as shown in Table 10.

Table 10: Poultry sector production growth relative to other types of meat in key Caribbean countries.

Country	Pig		Poultry		Cattle	
	'000 tonnes 2007	Growth 1995 - 2007	'000 tonnes 2007	Growth 1995 - 2007	'000 tonnes 2007	Growth 1995 - 2007
Barbados	2	-33%	15	+36%	0	-100%
Belize	1	0%	15	+53%	3	+200%
Guyana	1	0%	24	+242%	2	-50%
Jamaica	9	+29%	102	+127%	14	-18%
Trinidad & Tobago	3	+50%	60	+100%	1	0%

The development of the poultry sector has been predominantly driven by the private sector and the success of the Jamaica Broilers' integrated value chain approach to developing the sector in that country is often referred to as an example of what can be achieved if such an approach is pursued in the Caribbean. In fact they have gone beyond poultry and their business interests now also embrace retail and ethanol production operations, although all are an integral part of an overall business focus and thrust (⁵³).

⁵³ <http://www.jamaicabroilersgroup.com/>

Spectacular growth of the poultry industry has also been achieved in Guyana due to the efforts of private sector entrepreneurs, such as the Edun family, through the vertically integrated approach which they adopted for developing their 'Edun Farms' poultry business. This approach involved establishing a number of complementary businesses and business activities in a similar way to Jamaica Broilers, including the provision of access to the best genetic stocks, chicken rearing, egg production, feed mill establishment and operation, cleaning and washing facilities, the introduction of modern packaging technology and innovative marketing initiatives. They deemed all these to be essential for the development of a lowest risk, most resilient business operation in this sector in Guyana where many parts of the 'cluster' simply did not exist before Edun Farms established them.

Although the bulk of the market focus in the poultry sector has been on satisfying local market requirements, some players in this sector, including Edun Farms, are preparing to enter export markets (⁵⁴).

The Entrepreneur Perspective in Summary

It should be noted that the eight case studies described in the preceding sections represent a small sample chosen from within a much larger pool of entrepreneurs who are doing similar things – creating value, increasing local food supplies, and offering healthier more nutritious options to local and international customers. They were chosen because they reflect a quite different approach to business, compared to state Marketing Boards and Agencies, one which is based around entrepreneurship and innovation as indicated in each of their scorecards. They were also chosen because they include a mix of local and international market focused stakeholders illustrating that opportunities are available in both spheres.

One of the threads common to all these case studies is how the entrepreneurs focused on the market opportunity area first and then developed ways of satisfying those opportunities – a stark contrast to the approach adopted by many of the Marketing Boards and Agencies studied which, with a few exceptions, tends to be production driven. The entrepreneurs have focused on areas where value can be maximised, not volume. In other words, they start with places in the market where they can generate orders at a value which justifies the investment, risk, and effort they must make in order to succeed.

A second common thread in these case studies is that each entrepreneur has focused on a few key areas of excellence in terms of the products and activities that their businesses are involved with. They are not 'monocultural', like a Cocoa Board. They generally have at least five to six key focuses, including the poultry sector through its vertically integrated approach. For example, Goodfellow Farms combines 'mini-greens' production and delivery with the on-farm restaurant, the on-farm retail and gourmet business, providoring and specialist importing.

A third common thread is that all the businesses featured in these case studies have developed strong value chain structures that link production and end customers in a two-way integrated, comprehensive

⁵⁴ http://www.rienet.net/ri_.cfm?ID=439&cat_ =Value%20Propositions&Setform=439&CFID=5387646&CFTOKEN=49043205

and efficient way. Without strong, highly-developed, efficient and effective value chain structures, it is difficult to deliver to end customer expectations and build a viable business.

A fourth common thread is that all the case study businesses have taken on the responsibility of ensuring that market and regulatory standards are complied with and maintained, not so much because they have to but because they understand that if they do not then they are unlikely to attract on-going interest and business from their current and potential future customers and clients.

These eight case studies also illustrate the fact that entrepreneurs are contributing towards improving local supplies of better quality produce by being market focused and innovative. However, such contributions tend to be at the higher end of the market. This is something that indicates the need for a reality check about the current approach being taken towards agricultural sector development in the region as that approach is disconnected from the entrepreneurial thrust that is being seen in the region. The challenge is to develop a model that delivers the most beneficial value creation and national food security and nutrition model for the agricultural sector that is economically viable whilst at the same time able to competitively deliver to both commodity and higher end market demands. That is where there is a quite urgent need to address some 'Reality Gaps'.

The ‘Reality Gaps’

Indeed, this is the greatest challenge facing the agricultural sector in the region – a seemingly large disconnect with reality. In the author’s view, this disconnect is the root cause of the decline in agriculture in the region. Governments and many State Agencies are still trying to pursue agendas that are no longer relevant, something that Lennox Lampkin of the Chamber of Agriculture and Nutrition in St. Vincent and the Grenadines rates as a major issue. In the author’s view, this is one of the reasons why the sector is failing to perform and rural poverty has not been alleviated in the region.

Perhaps the greatest ‘Reality Gap’ is in understanding the production and marketing perspective that should be adopted and pursued in the Caribbean. The challenge is that agriculture was traditionally commodity-based. However, the associated mentality has persisted through into today’s thinking in what is a completely different market environment. A number of politicians in the region have stated that there is a need to increase agricultural production to reduce imports, reduce food costs, and improve food security. However, as one commentator recently noted in T&T, one has to look closely at what is being imported and how realistically home-grown substitutes can replace those imports at a competitive cost.

That commentator, Mr Raffique Shah, said that a statement from a government Minister that T&T had plans which it was implementing which would reduce the country’s food import bill half by 2015 – a total reduction of over USD 335 million annually - was *‘over-optimistic as agriculture as a share of national GDP is today well below 1% and has declined as a percentage compared to the preceding fiscal year’*⁵⁵. Shah noted that 62.5% of the current T&T food imports are in nine categories, namely:

- 70,000 tonnes of wheat.
- 51,000 tonnes of maize.
- 15,000 tonnes of cheese and whole milk.
- 28,000 tonnes of compressed livestock feed.
- 28,000 tonnes of rice.
- 15,000 tonnes of soybean oil.
- 70,000 tonnes of sugar.
- 4,000 tonnes of beef.
- 4,000 tonnes of dried milk.

He asks a very pertinent question. What substitutes can be produced in T&T to replace these relatively low value commodity products which are produced in highly efficient modern high-tech agricultural production environments at the most competitive international prices? It’s a question that no one has been able to effectively answer to date. Another commentator rues what seems to be a procession of restructurings and changes in activities and responsibilities at state Marketing Agencies in T&T,

⁵⁵ http://www.trinidadexpress.com/commentaries/Food_for_thought-175107241.html

something which also happens throughout the Caribbean region. It leads to discontinuities, disruptions, a lack of accountability and a failure to deliver (⁵⁶).

Dr Pathmanathan Umaharan, the Director of the Cocoa Research Unit in Trinidad and Tobago, presented a slide at the 'Spirit of Chocolate' 50 year celebrations recently which really puts forward a challenge for the agricultural sector in the region as it indicates the level of value creation that could be achieved if the right vision and right priority-setting was pursued. The potential is illustrated in Table 11.

Table 11: Creating an attractive business model for cocoa based on an improved productivity level of 1.5t/acre and a strong focus on value-adding activities – all in USD (⁵⁷)

Market Focus	Gross Revenue *	Gross Profit/acre/year
Farm Gate	\$11,250	\$1,550
Direct Export	\$17,500	\$3,850
Origin Specific Cocoa	\$35,000	\$10,400
Farmgate Chocolates	\$280,000	\$100,000
Signature Chocolates (e.g. Gina's, Cocobel, Tobago Estate)	\$1,020,000	\$350,000
Health & Wellness 'Chocolates'	\$3,500,000	\$1,000,000+?

* At the customer purchase level

All these figures are based upon a considerable amount of national and international market research (which the author has also contributed towards) that focused on identifying the level of end value that was being generated by various cocoa value-adding processes and entrepreneurs. The question this challenge raises, in terms of national food security and nutrition, is as follows. Are the production and marketing policies and practices being pursued in the region actually the reason why so little progress in agriculture has been achieved in recent decades? All the figures quoted in Table 11 are based on real retail prices that entrepreneurs in T&T and the region have actually realised in the market place, locally and internationally.

The author was involved in a project to develop a business plan for a major state-backed agricultural development project in T&T several years ago (⁵⁸). A number of stakeholders were asked the question, 'What does National Food Security actually mean?' Following are several different views from persons who are non-agriculturalists but who played key roles in the fields of business management and development at that time.

'Food security means you need to be able to feed yourself. If it is based upon core competencies then it would mean you would focus on those areas which you are best at. Food security is not just about growing your own food.'

⁵⁶ http://www.trinidadexpress.com/commentaries/The_budget_and_agriculture-175715871.html

⁵⁷ 'Cocoa Research Unit – Past, Present and Future', a Power Point presentation by Dr Path Umaharan, 2012

⁵⁸ TVAEL Business Plan, Ian Ivey and Arnold Babwah, January 2010.

‘There is a need to define what is meant by ‘national food security’. In my view it is the ability of a nation to feed itself with the least risk – at least in the basic food area. It doesn’t mean we need to grow all our own food. It means we need to set up a structure to minimise risk. In that case it may be better to contract the growing of food to Guyana if they can produce it more competitively.’

David Thomas of Market Movers puts forward the following view:

‘The agricultural sector in small island nations should be maximising the addition of real value to locally produced food and the value created should be used to pay for the import the cheap commodity foods (which will always be the case in relative terms if global food prices continue to increase)’.

This aligns with the views put forward by Mr Raffique Shah. Is it realistic to grow cassava on small holdings and expect the cost to be competitive with large-scale wheat production from offshore sources? Will it really contribute towards national food security and, if so, at what cost? These are questions that, as far as the author can see, have not been satisfactorily answered at this stage.

The key point made in all the three preceding comments relating to food security is that each country should focus on doing what it can do best rather than just growing anything and everything, no matter what the cost. It makes far more sense to grow and market effectively (as the entrepreneurs in the case studies have shown can be done) high value products suited to small scale production units (except in the case of countries such as Guyana and Suriname where land is much less of a constraint) that will contribute towards generating higher levels of national wealth. Such wealth benefits the country in a number of ways:

- It improves farmers’ incomes and reduces rural poverty.
- It provides greater economic resiliency as the level of GDP/capita increases, provided such increases are fairly distributed within the population.
- It provides higher value employment opportunities in the value-adding area, the area where most employment related to the agricultural sector is actually generated – not on production units and farms if modern farming methods are adopted.
- It generates extra revenues which can be used to pay for basic commodities such as those described by Shah previously in this paper, which simply cannot be produced or substituted for economically or practically in small island nations. There is no question that the price of those commodities will increase internationally in future years because of growing global demand, but the focus on higher value generation derived from those areas that the small island Caribbean countries can do well will at least provide a stronger position for coping with such basic commodity price rises. The age of ‘cheap food’ is rapidly disappearing.
- Such value creation can also be used to back contractual arrangements with third countries to supply basic commodities in the same way China, Singapore and Dubai have been doing internationally. There has been a great deal of talk in the Caribbean about Guyana becoming the key commodity producer supplying the smaller island states with their needs. However, to date this talk does not appear to have generated any real tangible outcomes.

So, this is where the greatest ‘Reality Gap’ comes into play. For some time now there has been a stark difference between what the Commodity Boards and Marketing Agencies have been tasked with doing by governments and their associated stakeholder groups, such tasks often embracing conflicting agendas and low risk because the state always ‘pays up’, and what entrepreneurs have been pursuing at their own expense and risk. Such a ‘Gap’ was reflected strongly in an assessment of Caribbean National Priority Sectors undertaken by the author for the Inter-American Development Bank in 2010 which identified the sectors each government in the region had identified as a national priority, formally or informally. Those priorities were then compared to the sector areas into which many entrepreneurs in the region were investing their time and effort and taking significant risks. As Table 12 illustrates, the outcome of this research found that there was a very significant disconnect between what governments considered as a priority and what entrepreneurs were pursuing as a priority.

Table 12: The Top 5 Caribbean Region Priority Sectors as Chosen by Governments (‘Top Down’) and as reflected by the business venture focus chosen by entrepreneurs (‘Bottom Up’) in 2010 ⁽⁵⁹⁾

Ranking*	‘Top Down’ Priority Sectors	‘Bottom Up’ Priority Sectors
1	Agriculture (11%)	Food & Beverage (11%)
2	Tourism (11%)	ICT (9%)
3	ICT (9%)	Agriculture (8%)
4	Financial Services (8%)	Fashion (8%)
5=	Agro-processing (6%)	Health & Wellness (7%)
5=		Creative (7%)

A significant commonality between the ‘Top Down’ and ‘Bottom Up’ choices is the relatively high ranking of agriculture in both. The big difference between the ‘Top Down’ and ‘Bottom Up’ priorities is the greater focus on value-adding and connecting with consumer related growth trends (e.g. health and wellness and gourmet foods) by the entrepreneurs. This is where the value creation happens, in areas that are strongly linked to changing consumer wants and needs.

As stated previously, this is the big ‘Gap’ that has not been realistically addressed in the Caribbean. The Commodity Boards and Marketing Agencies in the region charged with developing commodity sectors and agricultural products have generally continued to function as they did in an era where commodity trading was the main focus – producing and selling large volumes at a low price. However, the region simply cannot produce internationally competitive commodity products, as illustrated by the declines in the coffee, cocoa, banana and sugar sectors in the region particular. In most Caribbean countries (with the exception of Guyana and Suriname), a combination of both topography and small farm holding size means that a viable commodity-based agricultural industry is simply not a realistic option.

In the author’s view, it is the leading-edge entrepreneurs in the region who truly understand what the real future for the agricultural sector is in the region, and that is to develop and market high value specialist niche products which include a significant local value-adding contribution and which are

⁵⁹ IADB Caribbean Priority Sector Research Report, Ian Ivey, NEXT, August 2009

marketed through integrated well-developed value chains that connect all stakeholders within the value chain in a mutually beneficial way. In other words, lead stakeholders in the agricultural sector need to be focused on producing and delivering much higher value end products to world markets which generate substantially greater export revenues for the countries of origin than those that the majority of Commodity boards and Marketing Agencies have been selling (rather than marketing) to date. As the case studies in this paper demonstrate, there are also niche opportunities in national markets that are attractive if the right approach is adopted. If such higher values can be generated on a broader scale, it means that the high volume, large scale, lowest cost commodities which the Caribbean countries need to import can be more effectively paid for out of the higher export revenues the sector generates through adopting a more niche oriented higher value-adding approach to the sector (as has been the case in New Zealand).

It does not make sense to try and produce low end commodity products on the many small farms that typify agriculture in the Caribbean region. For example, in Jamaica 97.8% of all farms are less than 5 ha in size with 78.7% being less than 1 ha ⁽⁶⁰⁾. In more advanced countries with a thriving agricultural sector, a far lower proportion of small farms generally produces high value specialist crops and products, such as protected crops, because they are the only ones which offer some degree of economic viability on small areas of land. Growing commodity crops on small plots of land only perpetuates poverty because the value proposition is simply not realistic.

The population of the fifteen CARICOM countries is not that large, around 6.8 million in total which is 18% less than the city of New York at 8.25 million ⁽⁶¹⁾. When seen in this context, it makes little sense to try and focus on participating in the lowest value commodity part of the market because the region's population is relatively small and the majority of countries are not suited to modern efficient commodity production systems. That is why the opportunities and directions that entrepreneurs are pursuing, either in the production area or in the value-adding area, are important to understand. They provide a lead signal of what could be achieved in the region if the right value propositions are pursued and the appropriate value chain structures are put in place. A summary of some of the main 'Reality Gaps', from the author's, perspective is provided in Table 13.

A big challenge, when it comes to making progress and realizing the inherent value which the region has to offer from its agricultural sector (particularly in the more unique and higher value areas) is the fact that both the public and private sectors have generally not been good at working together in public private partnerships (PPPs) to address some of the 'Gaps'. This can only be achieved by the adoption of a collaborative and synergistic rather than confrontational approach, which has tended to be the case between the public and private sectors in much of the Caribbean. This is one reason why there is such a serious disconnect today between the approaches state Marketing Boards and Agencies have been pursuing and those being taken by leading-edge private sector entrepreneurs.

⁶⁰ Profile of the Small-Scale Farming in the Caribbean, Barbara Graham, FAO, October 2012

⁶¹ http://www.google.tt/publicdata/explore?ds=kf7tgg1uo9ude_&met_y=population&idim=place:3651000&dl=en&hl=en&q=new+york+population

Table 13: The ‘Reality Gaps’ between State Marketing Boards and Agencies and successful entrepreneurs when it comes to the agricultural sector

Focus Area	State Boards/Agencies	Successful Entrepreneurs
Orientation	Production driven	Customer/client driven
Product	Traded	Marketed
Agendas	Confused	Focused
Direction	Politically oriented	Market oriented
Mentality	Commodity	Value-adding
Structure	Stand alone	Collaborative
Value Chains	Poorly developed/integrated	Highly developed/integrated
Food security	Local state driven	Global value driven
Agriculture	Is social	Is a business
Nutrition/H&W	A second thought	A high growth opportunity area
PPPs	‘We know best’	‘We know best’

In the author’s view, it is the ‘Gaps’ listed in Table 13 that have been major contributors to the decline of the agricultural sector in the Caribbean region and, unless they can be addressed more effectively through the adoption of a more collaborative PPP type of approach that is vision-led and goal oriented, the sector will continue to fail to deliver.

Final Comment

In terms of resurrecting agriculture so that it can deliver more effectively to the people in the Caribbean region, there are ten areas that have been identified by the author which need to be addressed if the contribution of agriculture to each country's GDP is to improve, if greater value-adding is to be realised (which is essential for the sector's future in all countries, but perhaps less so in Guyana and Suriname) and if improved national food and nutrition security (in the broadest sense) is to be realised. The ten areas listed in Table 14 have been identified as the result of numerous studies and interviews with key agricultural sector stakeholders that the author has completed over the past six years.

Table 14: Ten key focus areas required to revive the agricultural sector in the Caribbean region ⁽⁶²⁾

1	<i>The right scale of operations (viability - \$\$\$/unit area)</i>
2	<i>The right product/crop focuses (more on the unique)</i>
3	<i>The right value propositions (more high-end niches)</i>
4	<i>Develop modern win-win value chains (> share of end-price)</i>
5	<i>The right branding and marketing approach (less trading)</i>
6	<i>More alliances, partnerships and networks (must be win-win)</i>
7	<i>Appropriate technologies (often quite simple)</i>
8	<i>Attractive to young people ('friendly' working conditions)</i>
9	<i>Adopt a systems approach (agriculture is a business!)</i>
10	<i>Financially viable (ROI of 5 – 10% - minimum!)</i>

Viewed in the context of these ten key focus areas, as well as the research and case studies presented in this paper, it is clear that the state Marketing Boards and Agencies are generally not well-equipped and positioned to support progress in these ten areas. In fact, many of their activities and actions (or lack of) have actually been responsible for a considerable part of the decline in agriculture's contribution towards the region's economies, the unfavourable national food security situation that exists today, and the decline in the quality of personal nutrition.

It is the leading-edge entrepreneurs who are demonstrating what can be achieved by the agricultural and agro-processing sector in all three areas. However, governments still tend to be of the view that they are best at delivering results in the sector, as evidenced by the 1,000 acre state-backed corn growing project planned in T&T ⁽⁶³⁾, which many doubt has any chance of delivering what is promised. Entrepreneurs and the private sector also tend to be viewed with suspicion by many working in the state sector – sometimes almost being seen as 'enemies'. The reverse view is also prevalent.

⁶² http://www.tffi.net/article_view/318

⁶³ http://www.trinidadexpress.com/commentaries/The_budget_and_agriculture-175715871.html

However, whilst saying that the region's entrepreneurs need to play a key role in delivering in the ten key areas listed in Table 14 and the three areas which this paper has focused on, one has to be realistic and acknowledge that the entrepreneurial contribution that is being made by the private sector today is clearly not at a level of development and sophistication that would be sufficient to turn the Caribbean agricultural sector's current pattern of decline around. In a similar way to the farming sector, the entrepreneurial value-adding sector is characterized by just a few larger stakeholders and numerous very small business players. Entrepreneurship has not been a strong area of focus in the Caribbean and it is only in recent times that a growth in interest and activity focused on supporting entrepreneurship, innovation and the development of clusters has been occurring. In spite of this increased interest, there are many challenges that entrepreneurs in the region face which their peers in developed nations do not. Once again, the 'disconnect' between the public and private sectors has been a good part of the reason why such challenges still exist.

In the author's view, the only way to make real progress in the agricultural sector in the Caribbean region in the three areas which this paper focuses on is to pursue a PPP approach with the roles that each are charged with playing within any such partnerships being clearly defined from the start. Such roles might be along the lines shown in in Table 15.

Table 15: A suggested demarcation of the roles and responsibilities of public and private sector stakeholders involved in a PPP based approach towards the development of the agricultural sector

Public Partner Contribution	Private Sector Contribution
Access to land at a realistic cost	Optimal utilisation and maintenance of that land
Standards setting and monitoring	Standards implementation
Market access and support	Market exploitation
Appropriate R&D	Application of R&D
Infrastructure	Effective infrastructure use
Facilitation	Implementation
Regulatory	Commercial
A single regional market	Supplying that single market
A future vision (majority buy in)	A future vision (majority buy in)
Food safety and health regulation	Compliance with safety and health requirements
Training and skills development	Modern attractive and rewarding work environments
Technology testing and introduction	Technology application
Consumer education e.g. nutrition	Consumer aligned solutions, including nutrition

Such roles and responsibilities then need to be aligned towards the achievement of an empirical goal within a set timeframe as part of a long-term vision e.g. an at least 250% increase in value-adding in the agricultural sector in Jamaica to achieve the end goal of that country's Vision 2030 NDP (of an increase in GDP/capita of 250% by 2030).

Currently there is a blurring of boundaries that exists within the state sector backed entities tasked with developing the agricultural sector. This is an issue raised in many reports and in the comments made by the majority of survey respondents who contributed towards the development of this paper. In the best case scenario, the state-backed Marketing Boards and Agencies appear to be having a minimal, if any,

beneficial impact in the three areas focused on in this paper. In the worst case scenario these state entities are actually said to be having a negative impact upon entrepreneurs who are taking substantial risks in order to pursue what they see as real market opportunities. As a result, these state entities tend to be having a negative impact overall on the three areas focused on in this paper as they are often seen to be hindering the entrepreneurial and innovation process. It is only when they adopt a PPP type of approach, as was the case in the facilitated process that evolved in Nevis, that progress can be accelerated.

Until all stakeholders, public and private, are able to work together collaboratively towards a common goal in a mutually synergistic and beneficial way, it seems that any improvement in agriculture's contribution towards GDP, and improvements in national food and nutrition security, are unlikely to be achieved in the foreseeable future in the region. Such improvements require a dramatic lift in the level of entrepreneurship and innovation that the sector embraces. These are areas which state-backed Marketing Boards and Agencies are poor at because they are simply not entrepreneurial or innovative, and yet they continue to play a major role. However, they are in a position to facilitate many areas of activity and cooperation that would enhance the entrepreneurial and innovation process, if they were correctly positioned and focused, and if they were tasked with working towards a common vision within a framework that clearly defines performance requirements, timelines, and accountability.

The 'Reality Gaps' that exist at present are large and not being effectively addressed by all the agricultural sector stakeholders in the Caribbean region. This is primarily because of a lack of a common vision and accountability for achievement as well as a considerable overall disconnect between public and private sector stakeholders. Unless both are addressed in a collaborative and mutually beneficial way, it seems likely that the agricultural sector will continue to fail to deliver to the citizens of the Caribbean countries, in terms of value creation and food and nutrition security, and fail to realise the inherent potential and value-adding opportunities that leading-edge entrepreneurs have already demonstrated exist within the region.

Appendix: Reference Sources

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- Ms Keeley Holder, farmer and entrepreneur, Barbados.
- Mr Duane Dove, Tobago Cocoa Estate, Tobago.
- Ms Gina Hardy, Gina's Truffles, Trinidad and Tobago.
- Ms Isabel Brash, Cocobel, Trinidad and Tobago.
- Mr Raymond Trotz, Phoenix Enterprises, Guyana.
- Mr Kenneth Peter, cocoa farmer, Trinidad and Tobago.
- Mr Farouk Yousef, agro-processor, Guyana.
- Mr Bhanwan Benny, farmer, Trinidad and Tobago.
- Mr Aziz Mohammed, a former NAMDEVCO Marketing Manager, Trinidad and Tobago.
- Ms Bernadette Fonfrose, President, Women in Fishing, Trinidad and Tobago
- Ms Sharda Edun, Edun Farms, Guyana.
- Mr David Thomas, Director, Market Movers, Trinidad and Tobago.
- Mr Lennox Lampkin, CEO, Chamber of Agriculture and Nutrition, St. Vincent and the Grenadines.
- Ms Ursula Williams, Sweet Sins, formerly of Grenada but now based in Germany.