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# Strengthening Agritourism Potential in the Caribbean



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# I. INTRODUCTION

## 1.1 Context

Despite the many attempts by Caribbean governments to resuscitate the industry, agriculture has declined in economic importance over the years with a general shift towards non-agricultural exports (Potter, Barker, Conway & Klak, 2004). The 1970s and 80s saw the region-wide promotion of manufacturing industries epitomised by the preponderance of free-trade zones and apparel export industries. In recent years, service-based industries, particularly tourism, have dominated regional economies (Mullings, 2004; Nurse, 2007) and – as some would argue – at the expense of traditional industries such as agriculture (Pattullo, 2005).

The plight of the agriculture sector is partly a function of the sector's exposure to a range of external shocks and also the structural inefficiencies that persist throughout the region, which rendered a significant portion of the industry uncompetitive. Today, many regional states are faced with a variety of economic challenges, including unstable world commodity prices for their few export products, high and mounting indebtedness, balance of payments problems, widening trade deficits and the erosion of their preferential markets.

In addition to these challenges, there are a number of regional characteristics that compound each country's efforts in achieving sustainable economic development. For example, the characteristically small size of many regional states prevents them from enjoying economies of scale. This generally translates into higher than world market prices for the production of principal regional products: sugar, banana, rice and coffee (Ahmed, 2004). Caribbean economies also display a high degree of openness – their external transactions are large relative to their total domestic output. They, thus, depend heavily on imports to support local manufacturing and to satisfy consumer demand (Girvan, 2000). In addition, regional states have traditionally relied on export revenues based on a narrow range of primary products to sustain their economies. In some instances, a single commodity can account for up to one-half of a country's total merchandise export – as was the case for bananas in Dominica and St. Lucia (Jessen & Rodriguez, 1999; Girvan, 2000). Added to this, the progressive removal of tariff and other restrictions on trade has resulted in the opening up of regional domestic markets to unprecedented levels of food imports (cf. Weis, 2004; Beckford, Barker & Bailey, 2007). The combination of all these factors – small size, high-cost production, economic openness, narrow resource-base, and a longstanding dependence on preferential trade – renders the Caribbean particularly vulnerable to an increasingly open and competitive global market place.

The changes brought on by the new global economy have made it particularly difficult for small producers across the region to survive in their own markets. As mentioned earlier, since the 1980s, Caribbean countries have been accommodating ever increasing levels of food imports that compete directly with their indigenous crops and products (Weis, 2004). This opening up of regional markets to food imports coincides with a reduction of state support to local farmers (Weis, 2004). Many of these farmers operate on small farm holdings of five acres (c. 2 ha) and less with limited access to funding and technical support and with labour-intensive methods of production that attracts high input costs (Beckford & Barker, 2007; Beckford *et al.*, 2007).

The outcome has been a decline in agriculture's contribution to regional economies, increasing levels of cheap food imports, widening trade deficits, and a general shift in emphasis away from agriculture towards service-based activities (Kirton, 2005; Jayawardena, 2007). This shift towards the export of services has stimulated much regional discussion, particularly as it pertains to the role that the service sector (especially tourism) can play in achieving meaningful regional economic development (Webb, 1997; Marshall, 2002; Mullings, 2004 & Rhiney, 2009).

The travel and tourism industry constitutes the leading service export for the Caribbean, with total export earnings accounting for approximately one-quarter of the region's Gross Domestic Product (GDP) in 2006 (Jayawardena, 2007). For several Caribbean countries (namely, The Bahamas, Cayman Islands, St. Lucia and The US Virgin Islands), tourism earnings account for more than 60 percent of GDP (Meyer, 2006, p. 2). In fact, the Caribbean has been regarded as being the most tourism-dependent region in the world since the 1990s (Karagiannis & Salvaris, 2005; Jayawardena, 2007).

Notwithstanding tourism's significant economic contribution to the Caribbean, the extent and scope of its contribution have come under intense scrutiny (Duval, 2004). Studies have pointed to the fact that the phenomenal growth recorded for the regional tourism industry over the past two decades, has occurred alongside high rates of foreign exchange leakages and limited inter-sectoral linkages – estimates of foreign exchange leakages from the sector are as high as 70 percent in some cases (Pattullo, 2005; Phillips & Graham, 2007).

Ironically, the idea of linking tourists' demand for food with domestic food production is nothing new to the Caribbean. From the onset, tourism development was expected to stimulate a particular response from farmers – the expansion and diversification of production to meet demand (cf. Zinder, 1969). However, up to the early 1990s, studies revealed that these expectations had not materialised and that linkages between tourism and agriculture were only weakly developed. See, for example, Gooding (1971), Cazes (1972), Momsen (1972, 1973), Belisle (1983), and Charles and Marshall (1991). It is evident, therefore, that linking these two productive sectors will require deliberate and strategic support to create sustainable economic opportunities that can benefit local communities in a meaningful way.

If regional states are to maximize benefits from tourism development, ways must be found to reduce the industry's high leakage rates by increasing its consumption of local goods and services. One such strategy is to link tourists' demand for food with local agricultural production, as well as to capitalize on the region's unique range of natural and cultural assets to enhance the tourist experience through activities such as farm-based tours and the development of alternative forms of tourism, for example, food festivals, ecotourism to name a few.

## **1.2 Project Background and Scope**

There is no clear definition for the term 'agritourism'. In fact, labels such as agrotourism, farm tourism, farm-based tourism, and rural tourism are often used interchangeably with the term. (See Phillip et al, 2010, for a more detail discussion on this). Broadly speaking, agritourism can be understood as constituting a form of niche tourism that involves touring agricultural areas to see farms and participate in farm activities. However, the term can also be taken to involve the production, marketing and sale of farm-based products for tourist consumption. In a recent study of the agritourism sector in the Caribbean, six different types of linkages between agriculture and tourism were identified (Harvey, 2011). These linkages occur:

- a) when farmers and agri-processors make agribusiness deals with the hotel and restaurant sector to supply them with produce and processed foods;
- b) through the use of alternative 'bush' medicines, natural remedies and organic treatments to enhance health and wellness;
- c) by sharing agricultural heritage with others through media, such as craft, visits to old plantations or agricultural museums;
- d) through local food festivals and culinary traditions;
- e) with farm-based activities such as rural bed & breakfasts and farm tours; and
- f) through community-based initiatives such as village fairs, rum shop tours and community markets.

The primary aim of this study was to document eleven successful cases of trade linkages in the Caribbean between agribusinesses and buyers in the tourism sector that can be up-scaled and/or replicated. The case studies were drawn from five selected Caribbean countries, namely:

1. Grenada
2. Haiti
3. Jamaica
4. Saint Lucia
5. Suriname

It is expected that the documentation of these successful Caribbean experiences will serve to enrich the exchange of knowledge between the Caribbean and the Pacific regions as well as with other countries in Africa, and ultimately contribute positively to economic growth and sustainable rural livelihoods through the promotion of trade between the agri-food and tourism sectors in both regions.

Specific objectives include:

- Identification of cases of linked agribusiness and tourism actors in five selected Caribbean countries, analyzing key drivers of success and key limitations
- Identification of good practices and the key innovations in building *win-win* market relationships amongst farmers, processors and entrepreneurs with the hotel/restaurant/food service sector at the national and regional levels
- Suggesting key institutional and policy bottlenecks that need to be addressed in order to up-scale benefits for agribusiness and tourism sectors

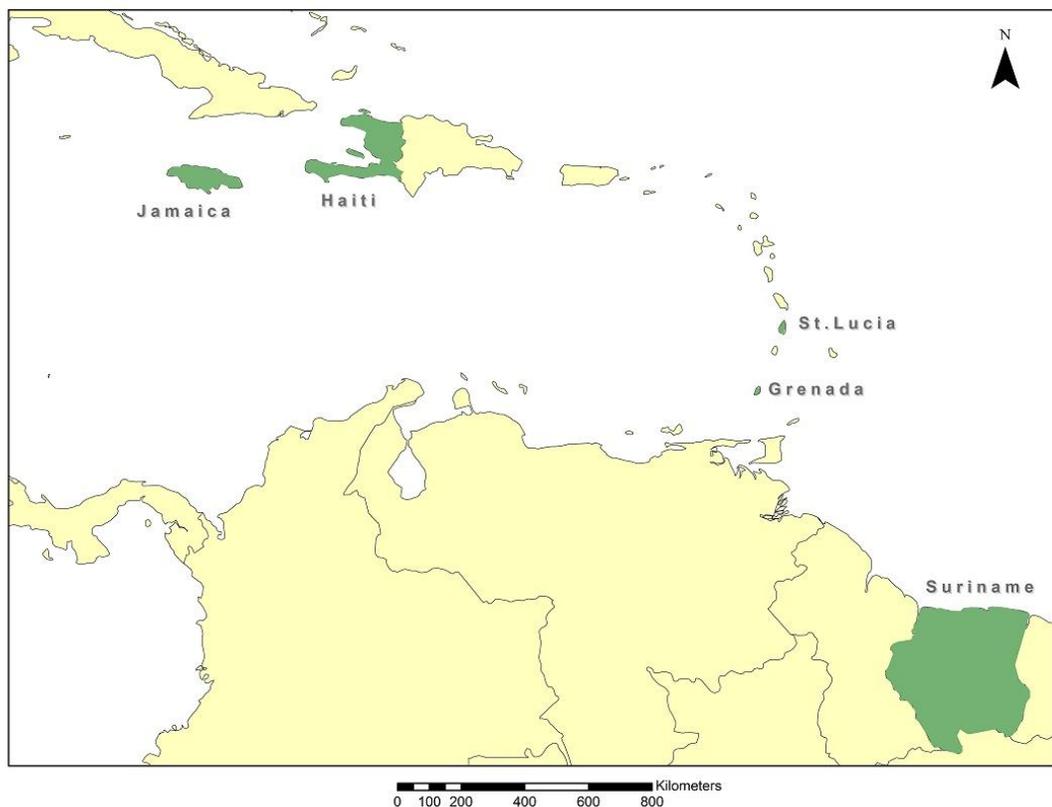


Figure 1: Map showing the countries in which the case studies were carried out

### 1.3 Methodology and Approach

In four of the five countries studied, eight case studies of successful models of trade linkages between the agri-food sector and the tourism industry were done – two case studies in each country. In the final country, three case studies were carried out. The data collection period extended from November 4, 2014 to April 1, 2015.

The cases that were selected are intended to highlight and showcase, *where possible*, different models of agritourism, opportunities for (niche) market access and gains for agribusiness stakeholders, innovative product development, branding and marketing strategies, proven mechanisms for minimizing risks and building resilience to external shocks, and prospects for Public-Private Partnerships (PPPs) in the Caribbean. The information used to develop each of the ten case studies was drawn from a series of in-depth semi-formal interviews that were conducted with the owners, operators, employees and partners of the various agribusinesses that were selected. These interviews were very detailed and, in some cases, extended for over two hours. Site visits were also done to observe firsthand how these companies were operated and managed.

To provide some sort of analytical lens for the case studies, a very loose version of the *Osterwalder Business Model (OBM) Framework* was used. (See Annex C for an example of the OBM Canvas.) The framework is an extremely useful tool in developing new or in documenting existing business models. By conceptualizing the various components of a business as building blocks, the model provides an effective frame for outlining and describing a firm's value proposition, key activities, key infrastructure/resources, customer base, cost structure and finances.

## 2. REPORT ON CASE STUDIES

### 2.1 Agritourism in the Caribbean – Case Studies from Grenada

#### Background

The island of Grenada spans an area of 133 square miles (344 square km) with a total population of approximately 105,897 persons (World Bank, 2013). Dubbed the spice island of the Caribbean, the economy is highly agricultural, accounting for 7.7 percent of the Gross Domestic Product (GDP) and employing 24 percent of the labor force (Worldmark Encyclopedia of Nations, 2007). There is a high dependence on the production of spices of which nutmeg and mace are the principal crops.

Both mace and nutmeg have been beneficial to the Grenadian economy over a long period of time. In 1987 a marketing agreement was concluded between the Indonesian producers group, Asosiasi Pala Indonesia (ASPIN) and the Grenada Co-operative Nutmeg Association (GCNA) with the objectives being to control export volumes of nutmeg and mace in order to ensure price stability and to set minimum price levels. This agreement not only limited nutmeg production but it also drove up world prices for the spice. Prices and revenues increased for both countries, but in 1989 the cartel collapsed as Indonesian producers began selling below the minimum price levels. Despite efforts to re-establish the cartel, the subsequent economic liberalization of the Indonesian economy in 1990 effectively ended the Agreement.

Coupled with tropical plants, mace, nutmeg and other spices, today, account for 80 percent of the country's exports. In 2004, the country's production included 2,747 tons of nutmeg, 4,000 tons of bananas, 1,000 tons of cocoa and 1,500 tons of avocados. In addition to supplying the international market, a widespread network of co-operatives exists for the local distribution and sale of agricultural products.

Despite the significant economic contributions made by agriculture to the national economy, tourism continues to be the leading foreign exchange earner, especially since the construction of the international airport in 1985. In the late 1990s, the offshore financial industry began to contribute to the development of Grenada's economy, which grew by approximately 6.5 percent in 2001. Despite the worldwide slowdown in tourism in 2001, inflation remained under control at 2.8 percent during this period (Worldmark Encyclopedia of Nations, 2007). Both the agriculture and tourism sectors were, however, brought to a near standstill by Hurricane Ivan on September 7, 2004. Thirty-seven people were killed by the hurricane and an estimated 10,000 were left homeless. Hurricane Ivan damaged 90 percent of the buildings on the island, including some tourist facilities and the overall damage was estimated at over US \$900 million, 2.5 times the

annual GDP (World Bank, 2009). Hurricanes Ivan (2004) and Emily (2005) severely damaged the agricultural sector, particularly nutmeg and cocoa cultivation, which had been key drivers of economic growth.

Though there is a high dependence on tourism, Grenada is a microcosm among Caribbean tourist destinations, having a mere 1,880 hotel rooms, accounting for 0.7 percent of the total Caribbean stock of hotel rooms. Over the past few years, there has been an almost continual decline in Grenada's tourist arrivals from 130,363 in 2008 to 112,307 in 2012 – a 14 percent reduction in four years (CTO, 2014). Tourist arrivals have still not recovered to the performance the country achieved before Hurricane Ivan. Similarly, the island's cruise ship arrivals have declined every year since 2008 – a contraction of 30 percent between 2008 and 2012. The only existing ray of hope in the Grenadian tourism industry is yachting, which primarily owes its development to the creation of Port Luis along with several increasingly popular regattas and fishing tournaments.

Linkages between the tourism and agri-food sectors provide substantial opportunities for the improvement of both tourism and agriculture within the Caribbean region. Instituting these connections would enable the use of the tourism industry as an avenue for diversifying Grenada's economy and by extension that of the Caribbean, inspiring entrepreneurship and assisting in the social development of communities. Internationally, agritourism is being driven by variations in environmental protection, nutrition and conservation of heritage, and within the Caribbean, it is evident that there is a preference by tourists for an experience and product that is authentic and linked to local foods, culture and heritage. In Grenada, multiple entities exist which offer such an experience. Two such cases are *De La Grenade Industries* and the *Belmont Estate*, which have managed to adopt sustainable models and maintained successful agribusinesses.

### 2.1.1 Belmont Estate

#### History of the Estate

Located on 400 acres of lush rolling hills, just an hour from the island's capital St. Georges, *Belmont Estate* is a fair-trade certified agritourism business, offering an *in-situ* experience to its visitors. Dating back to the 1600's, the estate was first owned by the Bernago family of France, after which it became the property of Mr. J Aitcheson Jr. of Scotland, after the secession of the island to the British in 1763, and was finally purchased by the Nyacks of Grenada in 1944. Throughout this period, it was one of the many plantations established on the island with coffee, which played a major role in Grenada's agricultural economy, being its major crop. Sugarcane was further introduced and the ruins of the water mill remain as testament to that aspect of the estate's history.

After many years of being solely reliant on agriculture for economic sustenance, and with the impact of natural disasters taking a toll on the property, crop output declined to the point where the estate was near closure and it was evident that there was a need for diversification if the business was to remain open. This led to the transformation of *Belmont* to a location with an agri-touristic appeal as a tribute to Norbert and Lyris Nyack, the deceased owners and grandparents of the current owner, Shadel Nyack Compton. This model adopted a sustainable approach to growth and development, utilizing organic methods that were environmentally friendly and that retained the natural aesthetic appeal of the estate. In April 2002, the transformed *Belmont* first opened its doors to visitors, integrating the local culture and cuisine of the island into agricultural production.

After the passage of Hurricane Ivan in 2004, most of the agricultural production and processing facilities were damaged and *Belmont* was forced to close the tourism component of the company. Four of the ten acres of the fruit orchard were destroyed with 100 percent loss sustained to the vegetable operations. The destruction unleashed on the property, however, provided an opportunity to explore additional possibilities for the estate. After much rehabilitation and reconstruction, the ecotourism component was revitalized in 2007, offering a tour of the plantation and its attractive 250-seat Grenadian restaurant. The tour offers a unique opportunity for visitors to experience chocolate production: from the field to the fermentary and the value offered is experiential as individuals are not merely told of the operations, but they are given the opportunity to experience it. The witnessing of cultural performances, petting the animals, touring the facilities, viewing the cocoa at the different stages of processing and sampling the finished products of chocolate and cocoa tea, are a few of the activities tourists look forward to during their visit. The venue continues to be well received by locals and foreign guests alike, and this has led to its expansion and an increase of the staff complement, which now stands at eighty persons.



Figure 2: A view of the restaurant at *Belmont Estate*

### **Business Structure**

*Belmont* as an ecotourism attraction was not an attractive venture for investors and lending institutions. Amidst setbacks, there was a strong desire to see the idea of an ecotourism destination being established, and with a ‘leap of faith’ and personal funding, the concept was launched. As the potential of the estate became apparent, a number of financial institutions, including the Grenada Co-operative and Development banks, offered loans, which in tandem with private loans, small grants and the estate’s income, kept the business afloat.

The partnership between *Belmont*, its associates and employees is one built upon admiration and trust, and to ensure this relationship is maintained, all individuals commit to maximizing the potential of the business. To enhance publicity and to ensure the business is promoted to a massive audience, marketing is undertaken through varying channels. Media advertisements, via radio and newspapers, aid in promoting the business; promotional brochures and flyers are disseminated through the hotels, guest houses and social media sites such as Facebook, Twitter and Instagram. These are used alongside the estate’s website. Trade shows and exhibitions also prove to be useful mediums for promoting the property. The most utilized avenue, however, is ‘word of mouth’ as individuals often encourage others to visit based on their personal experiences.

The entities that have sought to forge partnerships with *Belmont* include tour companies, supermarkets, farmers and the national import board. These tour companies, such as Sunstation tours, Caribbean Horizon Charters and Tours, Tropical Charm and Huggins Tours, work alongside the hotels and often recommend the estate and particularly the restaurant as tour sites to visitors. The farmers and co-operatives work alongside the goat dairy component, while the Marketing and National Importing Board (MNIB) supplies locally produced agro products to

various markets. The organic chocolates and other products developed on the estate are sold locally by Real Value, Foodland, Daddy Wayne and Andall supermarkets, and are also exported. These supermarkets and hotels comprise the primary customer base. The visitors from the hotels and cruise ships purchase a lot of the organic products, especially the chocolates. As a result, a niche market exists for the products abroad, and this promotes the export of the items. Small agricultural exporters and local farmers also purchase the items for resale on both the local and overseas markets.

#### *Executing the company's value proposition*

Human capital is one of the most crucial resources on the estate. The employees comprise the corporate family, whose hard work produces the products and services and have a direct influence on the company's current and future success. The operational resources are likewise important, as the maintenance of the physical plant is critical in retaining the authenticity of the estate. A keen interest is placed in ensuring that the storage and production facilities are maintained from a *Good, Fair and Clean* perspective. *Belmont's* key strengths are premised on the fact that the business is rural and community based, rendering it an authentic experience. Being organic and fair-trade certified also adds value to the experience.

The top five (5) most important activities in executing *Belmont's* value proposition are the organic farm, the organic value added products, the restaurant offering authentic traditional cuisine, exceptional service offered at a good value, and an authentic farm experience offered through the various tours.

#### **Agritourism Component of Business**

##### *Relationship with tourism market*

*Belmont Estate* is one of the top agritourism businesses in Grenada and, therefore, plays a pivotal role in the island's tourism industry. As such, the estate has a good working relationship with key government and private sector stakeholders, and is considered a model for the establishment of similar initiatives. The entity's managing director, Ms. Shadel Nyack Compton, has served as chairman of the Grenada Board of Tourism during its transition to the legislative body, the Grenada Tourism Authority, of which she is now a board member.

Being a player in the tourism market, particularly agritourism, has proven to be quite advantageous. This is evident in the number of opportunities that have emerged to access additional income via the additional activities being offered. Through strategic partnerships, the

services and products on offer have been diversified to include a craft shop, the goat dairy farm and the Bon-Bon Organic Chocolate Shop. The diversification also augurs well for the community as there is direct and indirect job creation as more individuals are needed to work on the property. The preservation of natural and cultural resources also occurs, as nature and culture are both integral components of the agri-touristic experience.

### *The plantation tours*

Despite *Belmont's* core business being the cultivation and processing of cocoa, the plantation boasts a myriad of sites including the gardens, organic farm, heritage museum, and the craft shops. Each location provides a different experience and contributes to the dynamism of the estate.

The garden, which comprises a mixture of plants and trees, often serves as a suitable venue for weddings and family gatherings. The tranquil setting proves to be appealing to the many visitors and is popular amongst those individuals seeking to relax and enjoy nature. The animals provide an added touch as the monkeys and birds are quite interactive and seek to entertain the guests as they stop to take pictures.

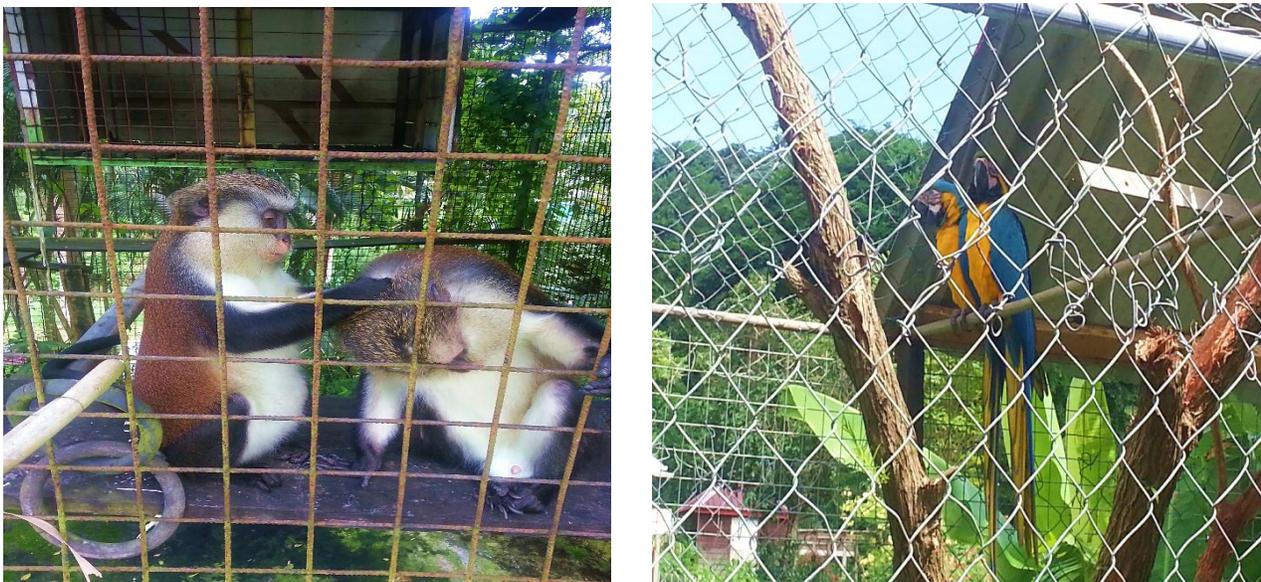


Figure 3: The animals on display at *Belmont Estate*

### *Cocoa processing: the Tree-to-bar Tour*

The cocoa processing facilities provide a vivid presentation of how the cocoa beans are prepared before being sent to the factory. The process involves placing the beans into a filter where debris and excess moisture are removed. After which they are placed in fermenting boxes and covered with banana leaves. The beans are left for up to eight (8) days and are turned from one box to the next every two (2) days to facilitate oxygenation, thus, promoting fermentation. The finished products are dark brown, completely fermented bean, indicating the cocoa is ready for the drying process. After drying, the beans are removed, polished, graded, packaged and transported to the factory, where they are processed into organic chocolate products.



Figure 4: The cocoa drying room at *Belmont Estate*



Figure 5: Fermented beans inside the drying room at the *Belmont Estate*

#### *The Arts and Craft Co-operative*

The Grenada Arts and Craft Co-operative currently provides support and training to local artisans producing 100 percent natural arts and crafts. The brainchild of Pam Charity, the co-operative seeks to offer an avenue for artisans to produce and sell their wares, while utilizing natural products. Initiated in 2009, the co-operative has a shop on the estate that carries a myriad of hand-made crafts, all strongly influenced by the eco-friendly theme embraced by *Belmont*.



Figure 6: Crafts produced by members of the co-operative on display at *Belmont Estate*

### *The Goat Dairy Project*

The Grenada Goat Dairy Project, currently a partnership between *Belmont* and a local non-profit organization, produces a variety of products including goat cheese, yogurt, ice cream and a cream sauce for the local market. Launched by Christine Curry, the current owner, this dairy programme was initially a post-Hurricane Ivan initiative funded by the project and geared towards helping farmers in acquiring an income through providing high quality goat's milk. The ecotourism product being offered by *Belmont Estate* was in harmony with the foundations of the goat dairy project and, as such, the concept was incorporated into its overall operations.

This project has been in effect since 2008, however, it was incorporated into a separate non-profit in 2011. It was a key aspect of a diverse farm concept, which would offer demonstration and learning opportunities for farmers to educate themselves about sustainable concepts. The business model showcases an interest in enabling farmers to obtain sustainable income. The project currently has 30 goats, the daily cost for maintenance of each being between EC \$8 to EC \$10 per animal. These animals are taken care of by the auxiliary workers, including the feed gatherers and the on-farm staff, while other workers, including drivers and delivery personnel, are primarily involved in off-farm activities.

Of the items produced from the goat dairy, the chèvre, soft goat cheese, is one of the favored products currently being utilized in restaurants by expert chefs. Retail outlets such as Foodland, Real Value and Food Fair have likewise been offering the product for sale and although it is not being offered overseas, there is demand for it in Barbados and St. Vincent.



Figure 7: Doe and her new-born at the *Belmont Estate*  
(Source: Grenada Goat Dairy)



Figure 8: The goat house at the *Belmont Estate*  
(Source: Grenada Goat Dairy)

### *The Bon-Bon Shop*

The Grenada chocolate company currently produces chocolate bars with varying amounts of cocoa. The 60 percent and 71 percent dark chocolate bars are all time favorites; however, new treats – the 82 percent and ‘Nib-A-Licious’ bars, which is 60 percent – have been added. The 82 percent cocoa bar is a blend of pure rich cocoa, while the Nib-A-Licious is a mixture of crunchy nibs-crushed beans and slightly sweet chocolate. These treats alongside cocoa powder, bon-bons, hot chocolate, chocolate covered ginger sweets and cocoa truffles can be found at the Bon-Bon Shop on site.



Figure 9: Chocolates available for sale at *Belmont Estate*

### *Other existing partnerships*

The *Belmont* Foundation is the charity arm of the estate, which in amalgamation with the other partners, raises funds to assist children and the elderly. Through varying charitable interventions, the company has managed to garner support for the community and is currently working with the *Center for Responsible Travel (CREST)* to embark on an after school tutorship, which will be offered to students in the community.

Aside from fulfilling its philanthropic duties, *Belmont* takes pride in environmental preservation and currently partners with The St. Patrick's Eco-Conservation Tourism Organization (SPECTO), an environmental movement centered on community tourism that undertakes environmental initiatives including river conservation, clean-up and protection projects.

Other partnerships exist with the Grenville Co-operative Credit Union, which offers financial services to farmers and residents within the community, and the GrenVet Island Veterinary Service which provides free mobile veterinary services to farmers and pet owners in rural areas.

### *Recognition for sustainable efforts*

Sky Views Inc. has listed the goat dairy component of the *Belmont Estate* as a concept seeking to produce nutritious dairy products in harmony with the environment, and to establish the process as a working model to train and empower Grenadian farmers. The project is deemed as being high in biodiversity, social governance and waste reduction and was given the 2014 Blue Green Matters Sustainability Award of Excellence.

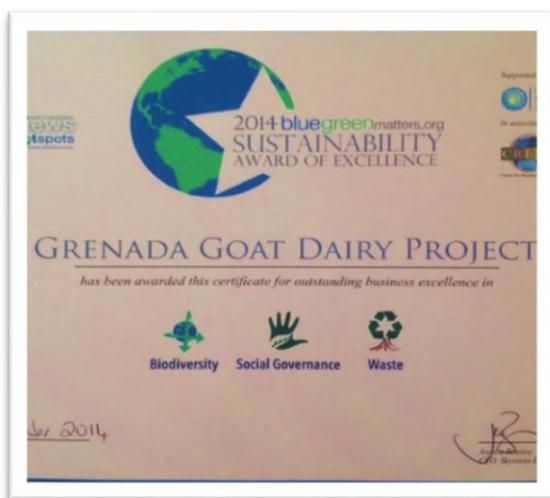


Figure 10: Award received from SkyViews Inc.



Figure 11: Award received from the Academy of Chocolate

The Academy of Chocolate awarded a bronze medal in 2005 to the Grenada Chocolate Company for its 72 percent organic chocolate bar, which the Academy described as the best bean-to-bar chocolate. In 2013, a silver medal was awarded to the company for the Nib-A-Licious bar, the best flavored dark chocolate bar.

## **Risks and Challenges**

Amidst the successes that the estate has experienced, there are some areas that could be improved to offer a more satisfactory tour experience and to further secure the business' niche market.

### *The estate*

There are many factors that could obstruct the supply of goods to the tourism industry. Of these, however, the greatest challenges are associated with maintaining the estate's image, changes in customer tastes, the impacts of climate change and risks related to marketing. For a business premised on offering a genuine experience, maintaining authenticity may be a primary challenge. As there is growth, some archaic yet unique methods and features are replaced, and their replacements may detract from some aspects of the tour. Such changes include enhancing the building structure and utilizing modern equipment.

If another business were to be established and were to offer a more original and enthralling experience, guests may opt out of visiting the estate and, as such, the challenge of remaining relevant within a changing landscape becomes necessary. As it relates to scaling up the estate's operations, the primary challenges include access to additional financing, the environmental impact that may occur as a result and access to expert human personnel. Securing additional funding/loans for improving the product may be difficult. Additionally, even if these loans were forthcoming, the possibility for environmental degradation may arise depending on the extent of expansion being considered.

On the issue of expertise, human resource capacity, data management and internal operational processes are lacking. There is a need for greater incorporation of technology in the administrative operations of the company. This requires that the estate hires more skilled personnel, a move that may prove challenging as the property is located some distance from the city center. Daily transportation would be expensive and providing accommodation would cause the company to incur additional costs.

The greatest risk in operating this business is that processes can be drastically halted due to hazardous weather or the impact of pests and diseases on plant and animal life. Bio security is a real concern for small Caribbean states, which often possess fragile economies and porous borders. This concern is valid as is evident by the re-emergence of the Black Pod disease – known for destroying cocoa pods – during the recent drought. The long dry season has, therefore, affected output and, as a direct result, the estate has incurred a loss in revenue.

### *Goat dairy*

During the recent drought, milk production decreased by 30 percent. This decrease was a direct effect of the goats not being accustomed to the tropical climate of the Caribbean, as they were imported. Due to both climatic and non-climatic factors, the original salaries of staff, over the past five months, have been cut by 30 percent. Amidst the decline and resultant salary cuts, workers have been kept to ensure that their households still have a source of income. In the event of limited cash flow, animals are given out in lieu of pay.

Different feeding systems, including pasture rotation, tethering and shepherding, have been implemented. Although these systems have a lot of potential, goat feed still remains one of the greatest challenges, as it is very expensive. As a result, efforts have been made to propagate some small plots to aid in offsetting feed costs; however, insufficient resources are available to explore this to its full potential. If the plots were being subsidized, the initiative would prove to be more sustainable. Another major challenge is the maintenance of and adherence to proper sanitation procedures.

### **Mitigating against Risks**

In an effort to alleviate the threats being encountered, attempts have been made to minimize costs. Expenses are managed closely to ensure that important operations are kept at the forefront, while other operations are scaled down.

### *Opportunities for diversification*

A bid for a climate change grant was recently submitted in an attempt to acquire funds to get the processing room operating on solar energy. It is also the intention of the estate to have the goat houses at *Belmont* and at the school running on solar energy. Such a development would promote the eco-friendly concept of the business. To further promote diversification, individual farmers

have been encouraged to venture into goat rearing as the opportunity exists for them to become a part of the goat dairy industry. In ensuring that this is sustainable, governmental assistance in getting the cost of feed subsidized would be an important component and increased feed propagation would also play an integral role.

In expanding the services offered, opportunities exist for offering accommodation as well as a research and educational facility. There is likewise a possibility for incorporating Gender Tourism by empowering local women. Through collaborations with the Centre for Responsible Travel (CREST), tourists would be encouraged to visit businesses where women play pivotal roles. There is also the idea for the launch of a travelers' philanthropy program, where individuals would be encouraged to donate towards projects geared towards community development.

### 2.1.2 De La Grenade Industries

#### History of the Company

The *De La Grenade Home Products* originally started as a Cottage Industry in the 1960's, pioneering the use of nutmeg in the production of top quality jams, jellies and marmalades and a liqueur from an old secret family formula. By 1986, the company had undergone a re-organization and expansion process that saw the birth of the *De La Grenade Industries*, a limited liability company.

*De La Grenade Industries* was originally owned by Sybil La Grenade, until his tragic death in a vehicular accident led to the company being taken over by Dr. Cécile La Grenade. The company has now embarked on a massive export drive to expand into both regional and international territories.



Figure 12: Outside the processing facility at *De La Grenade Industries*



Figure 13: Inside the processing facility at *De La Grenade Industries*

## **Business Structure**

### *Executing the company's value proposition*

The company currently boasts fourteen (14) products, having recently added new products to its range of offerings. These include sea moss, pepper jelly, mauby syrup, nutmeg jam, guava jelly and the flagship product, La Grenade Liqueur. In diversifying the services offered, the shop on

site was upgraded to offer these products. Samples of the products are offered to visitors, and this helps them to decide what product(s) they wish to purchase. A nutmeg garden is on site and it offers the guests the opportunity to view the crops used in the manufacture of *De La Grenade* products.



Figure 14: Products manufactured by *De La Grenade Industries*

The company uses solely natural products in the manufacturing process, a characteristic that distinguishes it from its competitors. Nutmeg, being one of the primary natural raw materials for the manufacturing of the products, is available in abundance, as the surrounding terrain allows for mass growth of the crop. An added advantage is the beautiful packaging used on all items. A high value is placed on the visual appeal of the items, and packaging allows for the products to stand out amongst those of competitors. Another distinguishing characteristic of the company is the exemplary and longstanding relationship that exists between staff, all of whom have been with the company for more than a decade, and the owners. This relationship provides a healthy work atmosphere that promotes cooperation among all parties.

From a financial perspective, a good track record exists with financial institutions as loans have been received and are accessible from the Royal Bank of Trinidad and Tobago (RBTT) and the Grenada Development Bank. Grants and funds received from the European Union have also assisted in offsetting the company's expenses.

The existing infrastructure is deemed sufficient in meeting the current production demands and in ensuring the products are effectively promoted. Marketing is done through a variety of methods, including brochures, visitor channels, billboards, tour companies, websites, sporadic television advertisements (especially during carnival and the Christmas seasons).



Figure 15: Onsite shop where products are sold      Figure 16: The renowned *La Grenade* liqueur

### **Agritourism Component of the Business**

#### *Relationship with tourism market*

An opportunity exists for visitors to sample naturally produced items while being afforded the opportunity to tour the gardens and view the processing facility. This experience offers an added dimension to the buying process.

The most popular customers are hotels, vendors and airline caterers; however, individual customers purchase items through supermarkets, duty free shops, gift shops and the marina. Between 1993 and 1995, the 1 oz. jams and jellies were served on the breakfast trays of first class passengers of British West Indian Airways (BWIA). British Caledonia Airlines also served the jams and jellies with its breakfast in both first class and economy class between 1993 and 1999. To date, LIAT includes the *De La Grenade* miniature rum punch in its in-flight bar.

#### *The gardens*

Visitors are given the opportunity to savor the taste of tropical fruits while touring the gardens. The nutmeg carpeted paths, the view of Mt. Gozeau Tropical Forest Reserve and the lush verdant hills of St. Paul's all add to the tranquility of the space. Spanning two acres, the garden runs adjacent to the main company building and offers a complementary component to the processing facility.



Figure 17: Views of the nutmeg garden at *De La Grenade Industries*

#### *Benefits of tapping into the tourism market*

International exposure, increased sales and venturing into other markets are a few of the advantages of becoming integrated into the tourism market. With tourists supporting the items, there emerges a demand for the products that enhances publicity and increases income.

#### *Existing partnerships*

In capitalizing on partnerships, all avenues are explored. The Ministry of Foreign Affairs and the Grenada Co-operative Nutmeg Association (GCNA) are corporate companies seeking to provide *De La Grenade* with expert advice and resources. The local farmers, supermarkets, retailers and hotels are also crucial as they supply the products to the consumers. The Grenadine islands and Trinidad and Tobago are major partners as well as they provide markets for many of the products.

#### *Recognition for outstanding achievements*

The Grenada Chamber of Industry and Commerce in 1989 awarded *De La Grenade Industries* the manufacturer of the year award. A year later, two awards were received: the Grenada Independence Award and a gold medal for best liqueur from the Monde Selection in Brussels. The nutmeg syrup also received a Grand Gold Medal and remains the only Caribbean food product to receive this award from the Monde Selection.



Figure 18: Awards received by *De La Grenade Industries* from Monde Selection

### Risks and Challenges

The effects of hurricanes continue to be a major burden for the property. Nutmeg production is not affected to any great extent by drought, however, hurricanes are disastrous, and with Caribbean islands being susceptible to climate change, the increased frequency of such storms is a major problem. During Hurricane Ivan, not only were the crops affected but the wooden rafts, lights and roofs of the buildings were destroyed. This halted the operations at the processing plant and whilst nutmeg was in storage, the amount was not sufficient to meet production demands when the factory was reopened. The recent outbreak of the chikungunya virus affected tourist arrivals from cruise ships as visitors were reluctant to leave the ships for fear of being infected.

As it relates to human resources, more training is needed for the staff as there is a lack of expertise in food science. Procuring additional equipment for the creation of new products is a challenge due to the associated high costs. The high costs associated with fuel and packaging currently consumes a significant portion of the company's expenditure. To minimize costs, efforts are being made to reduce electricity use and operational costs where possible.

Competition from cheap brands made from artificial flavors is present in the market. It is, thus, the responsibility of *De La Grenade* to ensure that quality is maintained and that the brand remains relevant and competitive.

### *Opportunities for diversification*

There is currently 600 sq. ft. of space available for accommodating expansion. In enhancing the visual appeal, ideas are in place to improve the gardens by incorporating more plants and possibly adding a water feature. ISO 2000 certification is to be finalized and will prove to be an effective tool in demonstrating that the products meet the expectations of customers and have been approved by international standards.

## **2.2 Agritourism in the Caribbean – Case Studies from Haiti**

### **Background**

In the 1980's, agriculture was the primary contributor to Haiti's economic growth as it employed approximately 66 percent of the labor force and accounted for an estimated 35 percent of the Gross Domestic Product (GDP). The importance of agriculture has, however, declined severely as a result of a myriad of factors, including rural-urban migration, limited use of innovations, limited access to financial resources and limited infrastructure to support productivity. While these factors have primarily been economic in nature, ecological issues have arisen and have further deterred progress for the sector. Drought, deforestation and soil erosion coupled with various events have further led to a critical environmental situation. One such event was the earthquake of 2010 that caused major damage to all sectors of the society. While many of the earthquake's effects were immediate, it also had other secondary effects, such as the localized tsunami that hit the fishing town of Petit Paradis and the cholera epidemic.

Five years after this devastating earthquake, particular emphasis is being placed on tourism, and this has resulted in a slow re-emergence of associated sectors. The Caribbean Tourism Organization (CTO) has collaborated with the Haitian government in an attempt to reposition the island as a preferred tourist destination. Plans are likewise in place to utilize tourism as a vehicle for job creation, poverty reduction and development. In this regard, the city of Cap Haitien now has a new international airport and among the hotels in the capital Port-au-Prince are a new Best Western and a Marriott.

While tourism is a priority sector for economic development, the potential for strengthening the linkages with agriculture will prove to be a useful avenue for economic diversification. This realization has led to the signing of an agreement between Haiti's Ministry of Tourism and the Inter-American Institute for Cooperation on Agriculture (IICA). This agreement will seek to realize the potential of agritourism in areas, such as water and cocoa. Other organizations, such as the Clinton Foundation, have embarked on a mission to aid the growth of the Haitian coffee sector by exposing the product to new markets through purchase agreements. While these agreements

have been at the national level, local players have also been afforded the opportunity of supplying their agricultural produce to restaurants and hotels that cater to the needs of tourists. *Jaune D'or Eggs* and *Jardins Hydroponiques d'Haiti* are two of such producers who have tapped into niche markets that have arisen through tourism. Their business models, premised on quality, have helped them to remain key players within the agritourism landscape.

### 2.2.1 Jardins Hydroponiques d'Haiti

#### History of the Business

The innovative idea of growing plants within an automatically-controlled environmental system, was seen by Pierre Francois Benoit, current owner and president of *Jardins Hydroponiques d'Haiti*, as a possible way of promoting food security in Haiti. After returning to his homeland in 1990 after being in exile for twenty nine years, he saw where his expertise in quality control and his interest in hydroponics could be applied to a local setting, facilitating healthier fruits and vegetables in greater yields. This idea, thus, saw the establishment of *Jardins Hydroponiques d'Haiti*, currently the only hydroponically operated farm in Haiti. Initiated in early 1992, the first trials saw wood being used to fabricate a 1 metre squared table, which was used to house the first batch of crops. Studying existing literature on hydroponics and carrying out further experimentation, aided this trial phase and after much effort, twelve heads of lettuce were finally grown, a number which six months later increased to two hundred heads of lettuce.

Experimentally, a myriad of other crops were being grown in tandem with the lettuce. These crops included tomatoes, strawberries, cauliflowers and sweet corn. Since hydroponics was a new concept to Haiti, it was not known whether individuals would be willing to purchase and use these crops. In an attempt to test the receptiveness to the produce, neighbors and friends were used as 'test subjects'. The results were satisfying as they were impressed with the quality of the crops and were anxious to start using them in their meals. This finding resulted in the expansion from the tabletop to the balcony and then to the roof. When this space proved insufficient, reservoirs were dug, the greenhouse was established and this led to a gradual movement into more commercialized production.

While there was an interest in hydroponically produced crops, an interesting opportunity arose for Mr. Benoit and his crops following the cholera epidemic in 2010. Consumers were uninterested in soil-grown lettuce for fear of contamination; consequently there was a boom in the demand for Mr. Benoit's lettuce, which was being grown in a solution. This saw all the other crops being replaced by lettuce, for which the demand was exceeding the supply. As a result, additional workers were co-opted and to date twelve employees, including Mr. Benoit and his wife, are employed on the farm.

## Business Structure

Since hydroponics was initially a hobby that turned into a business, start-up funds were garnered from personal savings and, with the reinvestment of profit into the company, the operations have to date been very successful. Despite this accomplishment, however, it was seen where a loan would prove useful in the construction of a new greenhouse, and after two years of negotiations, a loan amounting to G \$325,000 and which would be disbursed in four installments, was acquired. The high interest rate (36 percent p.a.), however, saw the producers returning the funds after receiving the first quarter.

### *Utilizing technology: a competitive advantage*

Plants are grown at different stages to ensure that produce is always available. This is achieved by use of the *submarine context*, where every square kilometer is utilized and only a pathway left for movement between the sections. While production levels vary based upon demand, on average, a total of 45,000 heads of lettuce are currently being produced, with an average of 8,000 to 10,000 heads per month. Each small plot on the roof, houses 2,400 heads of lettuce, where each plot has its own timing mechanism, designating when the plants are fed. This had to be done as the pump lacked the capacity to feed all the plants at once. As a result, the area was divided into seven sections where each sector is fed individually. The mechanism involves water being fed to the roots. As the water is pumped, it is mixed with salts and re-oxygenated. Unlike other hydroponic solutions that are premixed, the producer himself mixes the ones used in this particular case. The salts are ordered in bulk and are strategically distributed to different plants by way of a computer programme designed by Mr. Benoit. Each plant has its own formula, where based on its stage of growth, the procedure is tailored to its specific needs. All nutrients are systematically administered and are verified twice daily. In respect to the acidity and alkalinity of the solutions, these are also monitored and maintained by the computerized system.

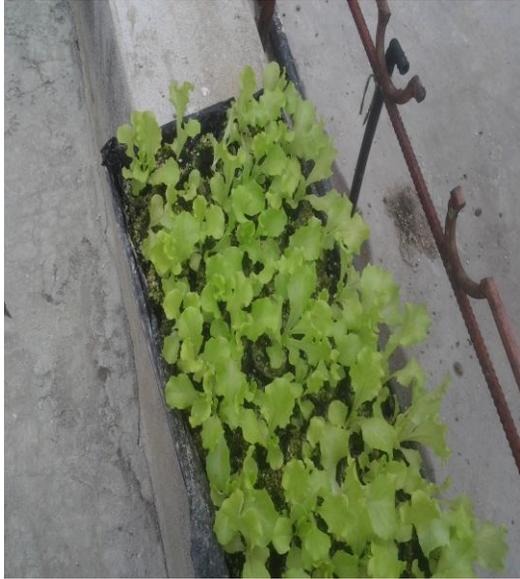


Figure 19: Lettuce seedlings



Figure 20: Grown seedlings ready to be transplanted



Figure 21: Mature seedlings transplanted within the roof system at *Jardins Hydroponiques d'Haiti*



Figure 22: Crops being grown within the greenhouse at *Jardins Hydroponiques d'Haiti*

### **Marketing and Sensitization**

Prior to the cholera epidemic, the demand for the crop was not high, as the type of lettuce being grown was not popular among the Haitian community. The producer, therefore, had the added responsibility of familiarizing the local population with the crop through effective marketing. The initial strategy of sensitizing the public involved visiting supermarkets and setting up displays and sampling areas, where buyers were able to taste the vegetable being offered. This was an effective strategy as individuals who indicated an interest, created demand for the once unknown product. Gradually, production was increased and today, the lettuce has become so popular that there has been no real need for marketing the product anymore. While the company still seeks to continuously attract as many customers as is possible, it is now being contacted by hotels, supermarkets and business owners as it is now known for providing lettuce of a high quality.

The demand for the product has been so great that often supply is not enough to meet particular orders. As a result, a method of 'reverse engineering' has been employed. This method sees the company growing crops specifically to meet the requirements of each order.

While fresh lettuce has been the primary product, there has been a move to tap into other tastes, and as such, some value-added products have emerged on the market. The lettuce is sold with

both sweet and salted vinaigrette, while basil is sold fresh and as a value-added product, *Pesto* (a sauce made from grounded basil). A new line of products, including micro greens, is also now being developed and is eagerly anticipated by the hotels.



Figure 23: Fresh basil being grown in the greenhouse at *Jardins Hydroponiques d'Haiti*



Figure 24: Pesto, the value added product derived from basil



Figure 25: Mr. Benoit adjusting the computerized irrigation system at *Jardins Hydroponiques d’Haiti*



Figure 26: The submarine context being utilized on the roof at *Jardins Hydroponiques d’Haiti*

### *Executing the company's value proposition*

The business focuses heavily on quality, and as such the process from beginning to end is deemed important. Each head of lettuce is gathered by a worker wearing a pair of gloves. Each is then washed with chlorine water to remove insects and finally placed into its own small box inside the greenhouse. At no point in this process are workers allowed to handle the lettuce with bare hands; only consumers are eventually allowed this privilege. This showcases the level of sanitation and care involved in the packaging process. The quality index at *Jardins Hydroponiques d'Haiti* is, thus, considered an integral component of the company's mission and is engrained in the business' philosophy. This heavy reliance on quality is a consequence of the producer's prior experience as quality control manager at General Motors in the United States. His background in programming and statistical analyses further helped in propelling the business, while ensuring that the correct procedures are adhered to. While the Ministry of Commerce has embarked on a mission to develop some standards to be followed when selling produce, the company already stands as a model in promoting effective management and quality control and is ready to implement whatever regulations the Ministry may develop.

Human capital, particularly co-operation between the owner and the workers and among the workers themselves, proves to be another crucial factor that has contributed to the success of the company.



Figure 27: An employee gathering lettuce for the greenhouse at *Jardins Hydroponiques d'Haiti*

Many of the workers, who are now trained and capable of using the different mechanisms and software, started out working in the yard. Some of these workers have been with the company for over twenty-five years. Through their overall work on the farm, they have not only become computer literate, but have also developed a strong work ethic.



Figure 28: An employee attending to crops in the greenhouse at *Jardins Hydroponiques d'Haiti*

### **Agritourism Component of Business**

#### *Relationship with tourism market*

It is evident that a significant part of Haiti's development will rely predominantly on tourism, particularly the potential linkages that will be forged with agriculture. Historically, Haiti was one of the leading tourist destinations, however, political turmoil and disasters have caused a shift from Haiti to other destinations. A re-emergence of Haiti on the tourism scene would, thus, provide additional consumers, and the model currently being undertaken within Mr. Benoit's company takes advantage of this agritourism link.

The large hotels where the tourists have acquired a palette for the company's vegetables are supplied with fresh produce on a regular basis. This is particularly important and aligns well with the healthy diets and lifestyles being adopted by these individuals. While the Marriott has been a customer, other smaller hotels and resorts have utilized the company's lettuce in their different recipes. In addition, supermarkets stock the company's fresh produce and value-added products

– pesto and the lettuce in vinaigrette. These value-added products are also available to tourists. Where transportation proves difficult, the vegetables are packed in igloos and sent by public transport to these hotels and supermarkets. This promotes a good relationship as provisions are made to facilitate every customer, irrespective of their location. This model has, thus, sought to develop local vegetable production and cater to both local and international palettes. In addition, it encourages the establishment of linkages and has bridged the gap between the producer and the final consumers. While exports are being viewed as a viable future prospect, the primary focus is currently on supplying the local market with fresh fruits and vegetables.

### *Opportunities for agritourism through collaborative efforts*

While farmers' groups and associations exist to provide opportunities and foster linkages with other sectors, their involvement with large farms have proved to be a challenge. A residue of the country's post-colonial era is the local population's tendency to associate farming and big farms with the plantation system. This perception has affected production to the extent that farming is often neglected. Historically, free peasants have only used the land to grow produce for themselves and their families; as such, the notion of introducing these individuals to farming, particularly through the use of technology, is not likely to change this view. Thus, there has to be a sensitization process where innovation has to fit the habits, customs and beliefs of the people.

One method currently being adopted by *Jardins Hydroponiques d'Haiti* is encouraging the sons of farmers, who have attained up to secondary level education, to utilize, with the help of the company, their parents' farmlands to establish small greenhouses. This is a strategy focused on immersing innovations into the peasant culture to showcase the potential of technologized farming for improving the standard of living through food production. This idea and others exist as opportunities for promoting rural development, reducing rural-urban migration and further improving the agritourism linkages. The incorporation of these smaller farms into a network of food providers will, thus, provide more food to restaurants, hotels and local consumers. The intention, therefore, is to collaborate in an effort to boost supply, reduce imports and promote the consumption of locally grown food.

### **Risks and Challenges**

While workers are considered disciplined and reliable, there has to be constant management and supervision to ensure that they adhere to specific requirements. Hydroponics is a very sensitive technique to which maximum attention has to be paid. The greatest challenge, thus, lies in encouraging workers to adhere to specific protocols and details.

As it relates to external hazards, in the 25 years of operation, the farm has only experienced one major hurricane, which primarily affected the lettuces on the roof. Likewise, once in every five years, an episode of hail may occur, which affects only the lettuce on the roof. The lettuce inside the greenhouse is, thus, usually protected from these events.

In addition to external risks, one of the major economic challenges are the high taxes on imported goods from which there are no government exemptions. With increasing demand from consumers, there is a need for scaling up production. Amidst this need, financial aid is lacking as institutions offering aid/loans are uninterested in agricultural businesses, and in instances where these loans are approved, the interest rates are very high. If these costs were perhaps lower, production could be enhanced and supply increased.

### **Mitigating against Risks**

While the process may be deemed as expensive in comparison to conventional farming practices, attempts are made at reducing costs through recycling and water harvesting. The excess solution that remains after a plant is moved to the greenhouse, is recollected and recycled. The roof and the front yard further serve as catchment areas for rainwater, where the water is collected in a tank beneath the house. This water is naturally filtered as it passes through a natural filter of stone, gravel, sand and charcoal. After filtration, it is collected in three reservoirs and further treated to rid it of remaining contaminants. Collectively, these reservoirs have the capacity to store over 900,000 gallons of water, thereby highlighting the capability of this self-sufficient irrigation system to effectively supply the greenhouse.



Figure 29: Salts being recycled after plant removal



Figure 30: Water collected and mixed with salts

### *Opportunities for diversification*

A new green house has been constructed in the south of Haiti where there are opportunities for both hydroponics and hydroelectricity. With an irrigation system that has its source in the mountains and that cuts through the property, the possibility for hydroponics and hydroelectricity is well supported. It is envisioned that turbines could be placed in the water to generate power that would supply electricity to the system. Additional plans are in place to establish three other greenhouses on this new property. These structures would complement the existing green house by providing an additional 2,000 square metres, which would put the company in a position to better offset increasing demand.

The company is further seeking to establish partnerships in different areas across Haiti with individuals who have access to land, so as to establish other greenhouses. The aim is to bring in associates and create a franchise where individuals all over the country would be using hydroponics under the company's brand to promote food security.

In five years, provided that proper financing is available, current production could be quadrupled with the bringing online of three additional green houses on property in tandem with the three in the south. With the growth being foreseen, another member of the Benoit family (granddaughter) has expressed interest in the company and is currently being introduced to the different operations.

It is important to note that Haiti imports far too many crops from other countries, and as such diversification is important and local farmers need to supply some of these goods. In this regard, Mr. Benoit noted that he sees the need to go back into planting other crops and this is an aspiration for the near future.

### 2.2.2 Jaune D'or Eggs

#### History of the Company

After graduating from agricultural school as an agronomist in the 1980's, Henry Chatelain, current owner of *Jaune D'or Eggs*, was afforded the opportunity of working with a private company in Haiti. This company, at the time, was investing in poultry operations, a business decision that arose out of the 1978 African swine fever outbreak in Haiti and the resultant interest of the Haitian government in poultry. This outbreak caused the government of the United States to sanction the slaughtering of all pigs where financing was available to do so, and led to the Haitian government replacing pork with poultry.

In 1988, contract farmers were being solicited to provide broiler chickens to the slaughtering company, and Mr. Chatelain's father became one of these contract growers. After years of providing poultry to the local population, the company that Mr. Chatelain's father managed was particularly successful as an embargo, which restricted the importation of meat into the country, was in effect. The business, however, collapsed with the lifting of the embargo in 1994, as the importation of chicken wings and other chicken parts created competition for local poultry providers. This destroyed the market for many smaller contractors including the Chatelain's business. This collapse signaled the need to move away from providing broiler chicken and, instead, look towards layer production, and saw Mr. Chatelain and his father venturing into rearing chickens for eggs, rather than for their meat.

This transition into layer production initially saw 12,000 layers being grown. During this period, Mr. Chatelain was the sole producer of eggs in Haiti, as eggs were heavily imported from the United States. This, therefore, provided a niche market for the sale of local fresh eggs to bakeries and hotels in particular, as these entities tend to be in favor of fresh produce. The land utilized for the layer production was family-owned, and while the business was originally started on half of an acre, the company today owns 18 acres, and employs 14 individuals.

#### *Utilizing a competitive advantage*

Simultaneous with poultry production between 1982 and 1994, Mr. Chatelain reared dairy cattle. The idea of feeding cattle nitrogen-rich foods, a practice used in other countries, was employed

by the business. This practice, however, was tailored to the nature of the business, as chicken manure, because of its nitrogenous content, was used. The location of the cattle farm further provided a competitive advantage, as being close to the Prestige Beer factory presented it with the opportunity to use the waste material remaining after the brew to feed the cattle. Its high fibrous content aided the cattle to digest the proteins obtained from the chicken manure.

Between 1980 and 1994, Haiti was Sprite's primary supplier of the lemon-lime flavoring used to manufacture the beverage. The factory operated by Sprite was located on the coast and this created waste disposal challenges for the company, but presented a unique opportunity for *Jaune D'or Eggs*. Mr. Chatelain arranged to collect the factory's waste products, and used it as feed for his cattle. These dairy cattle provided milk, which was then used in yogurt production. Each of the 60 cows produced an average of six gallons of milk per day, thus, there were 360 gallons of milk being obtained on a daily basis. Much of what was earned from the sale of milk was spent on other areas of the business other than on feeding, as the cost in respect to the latter was significantly reduced by utilizing waste products found on the farm and elsewhere in the country.



Figure 31: Cattle herded-in at *Jaune D'or Eggs*

In 1990, with the implementation of the oil and arms embargo, the cost of diesel rose and accessibility declined. Transportation was, thus, hampered particularly with regards to collecting feed for the cattle. Yogurt production was also affected as the fuel required to facilitate the

heating and subsequent cooling of the milk was not available. This led to the drastic decision to sell all the cows.

In 1996 after the cows were sold and dairy production halted, the decision was taken to venture into rearing beef cattle. The beef cattle, like the dairy cattle, were fed the chicken manure, which led to them gaining an average of 2 kilograms per day over a three month period. After they had gained sufficient mass, the cows were slaughtered and the meat sold. This venture continued to 2002 when praedial larceny resulted in the majority of the cows being stolen. However, most of the cows were later identified and reclaimed based on their distinct horns, which were cut to facilitate easier feeding, and their specific tags. Overall, only 20 of the 80 cows were lost.



Figure 32: Cattle waiting to be fed at *Jaune D'or Eggs*

#### *Minimizing costs: capitalizing on waste disposal*

The layer production generated a large amount of waste. With a layer taking 18 months to reach the production stage, and with a quarter pound of waste being generated a day for 18 months per chick, a large quantity of waste was accumulated. As a result, bio-digesters were introduced to the farm to produce fuel from the waste. This fuel was used for cooking meals.

Transportation costs were extremely high. As such, funds were raised and a truck was purchased. The truck proved useful, as in addition to transporting produce, it collected waste material from the brewery, which was used as feed for the cows.

### *Capital for startup*

In the late 1980s, when Mr. Chatelain's father was a contractor for the slaughtering company, he obtained a loan to scale up the broiler production. The guarantor for this loan was the slaughtering company, who agreed that in the event that he was unable to service the loan, they would do so.

However, during the period of transition from broiler to layer chickens, enough funds were raised and used to purchase the layer equipment. The loan was, therefore, not used. Initially, 12,000 layers were being grown; however, when the owner decided to triple production, he decided to acquire a separate loan from the bank. Unfortunately, there are disadvantages associated with being an agriculture-based company operating within Haiti. The interest rate of 27 percent attached to the loan was too high for businesses such as *Jaune D'or Eggs*, which were, and continue to be, highly vulnerable to different economic and environmental shocks. While the interest rate has since been lowered to 19 percent, these challenges are still faced by other businesses.

### **Business Structure**

#### *Executing the company's value proposition*

Being an entity involved in egg production, the acquisition of feed of a high quality and in sufficient amounts is a very important activity in ensuring the value of the company's produce. This, however, often proves to be an issue. Feed importation often proves to be a challenge when purchasing feed from the United States; as such the Dominican Republic is the preferred source, particularly because airfreight tends to be cheaper than shipping.

Mr. Chatelain has visited different seminars and symposiums to garner additional training and to keep abreast of different activities within the industry. The information learned was employed in the operation of the business and consultant veterinarians used to ensure that the nutrition and pathology of the animals were in the best condition.

## Marketing

When the company started operations, its driver was responsible for selling the eggs directly to different supermarkets, which would pay upon taking possession of the eggs. As time progressed, however, supermarket chains across the island suggested that the eggs be sold under different circumstances. They asked that they be allowed to pay for the eggs after they have been sold. The supermarkets also asked for the eggs to be branded, as initially this was not the case. The owner in response, started branding the eggs with '*Jaune D'or (Golden Yellow) Eggs*', but disagreed with the pay-per-sale option. Eventually, not many entities were interesting in selling the eggs. Today, Mr. Chatelain's sister is in charge of the marketing and sales aspect of the business.



Figure 33: Eggs collected after being laid at *Jaune D'or Eggs*



Figure 34: View of the chicken coop at *Jaune D'or Eggs*

## **Agritourism Component of the Business**

### *Relationship with Tourism Market*

Prior to the 2010 earthquake, the major hotels that were in operation were the main buyers and consumers of the company's eggs. With the demise of these hotels, the company incurred a huge loss. Today, the major supermarkets, bakeries, and small beachfront hotels, are the main customers utilizing the eggs through their various operations. As fresh produce is essential in providing a quality taste for baked products, *Jaune D'or Eggs* prove to be quite useful. For the supermarkets, these eggs are made available for both the local and tourist markets. The hotels in particular, who premise their meals on fresh products, use these eggs in the preparation of their pastries and different meals. This relationship between agriculture, particularly Mr. Chatelain's egg production, and the tourism industry, provides an avenue for consuming local goods while providing jobs.

### *Avenues for agricultural businesses*

While the government in the past had established some agricultural initiatives through the introduction of co-operatives, local farmers were not particularly fond of these programmes as they thought the funds should have been invested elsewhere. As a result, a stigma has been affixed to the term *co-operatives* and the government has had to find alternate ways of getting farmers to work in groups in order to take advantage of the incentives available. One of these alternatives has been that agricultural producers are exempt from paying the turnover tax (TCA), which represents a ten percent tax on the local sale of goods.

### **Risks and Challenges**

#### *Impact of hazards*

While disease outbreaks have been minimal, two occurrences have resulted in high losses. In November 1997, a tropical depression resulted in heavy rainfall for five consecutive days. This resulted in Mr. Chatelain losing 12,000 birds. This was, however, a small number when compared to the loss of an estimated 2 million birds in the Dominican Republic. The avian influenza likewise had an impact in 2008, but it was minimal as it was a low pathogenic (LP) influenza. During this time, fighter birds that were shipped from the Dominican Republic to Puerto Rico tested positive for the LP influenza. This created a scare in Haiti, which at the time was importing large quantities of poultry from the Dominican Republic – a practice which created heavy competition for local poultry farmers. The detection of the disease, thus, served as an opportunity to limit the amount of poultry that was being imported. In fact, fear of the disease spreading ultimately resulted in poultry from the Dominican Republic being banned.

While diseases have had and can have a serious impact on the country, the scale at which the outbreak occurs depends on the concentration of birds in a particular area. In the eastern part of Haiti, 18 million broiler chicks are being raised monthly and 6 million layer chicks daily. In other areas of the country, however, 120,000 broiler chicks are being raised per month in conjunction with fewer than 300 layers per day. Despite the same vaccine being used to protect the birds in both areas, the concentration of birds determines the impact felt. Since the eastern areas are more highly concentrated, they have heightened their bio-security in an attempt to reduce fatalities from viral outbreaks.

### *Acquiring feed for layer production*

In addition to environmental factors, social issues are also of concern to the company. Firstly, whenever chicks are being ordered, payment has to be made prior to their arrival, yet the chicks rarely arrive on time. This poses a challenge when demand exceeds supply, particularly during the peak seasons, as the chicks would not lay in time to supply the market. Secondly, the purchasing of feed is also a challenge. For layers, five different types of feed exist, and oftentimes the supplier delivers the wrong feed. To combat this issue, the decision was made to import directly from Purina, rather than buying from the Dominican Republic. While this move improved access, a greater challenge arose from the shipping process associated with purchasing feed from Purina. The completion of the documentation and the additional paperwork needed to acquire the feed from the wharf are particularly stressful and hectic.

After the earthquake, the port was badly damaged, and as a result the vessel carrying feed had to dock in the Dominican Republic and the goods subsequently transported to Haiti. Transportation costs increased during this period.

### *Competition*

The Haiti Hemispheric Opportunity through Partnership Encouragement Act, or 'HOPE II', and the Haiti Economic Lift Program Act (HELP) approved by the U.S. Congress have permitted a duty-free trade legislature that will prove beneficial to investors up to the year 2020. Unique to Haiti, this arrangement allows quota free access to investors who will benefit from incentives provided in the Haitian investment code, regardless of whether production is for export or for the local markets. The code includes incentives, which comprise exemption from customs duty and from income taxes on the import of equipment, goods and materials; temporary entry for active development of raw materials and packaging materials; general exemption from bonds or security deposits on the temporary entry of raw materials and packaging materials; exoneration from payroll taxes and other direct internal taxes for a period not exceeding fifteen years; and exemptions from audit charges. While these incentives act as pull factors for encouraging foreign investors, they likewise serve to provide avenues for competition for the local market.

Jamaica Broilers, Jamaica's pioneer producers of poultry on a commercial basis, ventured into Haiti some three years ago with an initial US\$2 million to US\$3 million investment. While they were the only other company in broiler production, they later ventured into layers and, as seen today, table eggs have become a major component of production particularly because eggs are a big part of the Haitian diet. The Haitian operation of the Jamaica Broilers Group now commands 15 to 18 percent of the table egg market in the country. Likewise, the Dominican Republic is

equipped to produce 8 million layers daily. During the tourist season, a large number of these eggs are consumed; however, in the off peak periods, a significant number of these eggs are sold on the Haitian markets, an occurrence that often results in a glut. Jamaica Broilers and the Dominican Republic, thus, serve as competition for Mr. Chatelain, and with the incentives being given to investors, other companies involved in layer production may venture into the industry. While this may be seen as a disadvantage, Mr. Chatelain remains optimistic that the quality of his eggs will continue to make them a favorite among the Haitian population.

### *Room for improvement*

While the owner sees where there will be a need for up-scaling in the future, more financing will be needed. This will prove to be a problem due to the reluctance of banks to provide loans to agriculturally based businesses. An additional issue with funding is that the granting of loans requires that the company operates at a level that far exceeds that which is currently possible.

As it relates to human resources, expertise in animal production is lacking, particularly in the area of veterinary science. Traditionally, a scholarship is granted every five years for a student to study veterinary science or agronomy abroad. To date, however, only 12 veterinarians are in the country and this number is insufficient. There should, thus, be a move to encourage secondary students to become more involved in agriculture in an effort to boost the sector and provide more skilled individuals.

## **2.3 Agritourism in the Caribbean – Case Studies from Jamaica**

### **Background**

While Jamaica's tourism industry dates back to the late 1800s and only emerged as a viable economic activity in the 1950s, the industry has grown tremendously since then – becoming the mainstay of the island's economy as early as the 1980s. Jamaica is now regarded as one of the Caribbean's leading tourism destinations, attracting an average of over 2 million visitors annually since 1999. Despite slight inter-annual fluctuations, the industry has experienced a steady rate of growth in visitor numbers, room stock and attractions over the past two decades. In 2012, total visitor arrivals to Jamaica amounted to approximately 3.3 million persons, roughly 60 percent (1.98 million) of which was accounted for by stopover arrivals. In the same year, gross visitor expenditure was worth US\$2.070 billion, with stopover visitors spending an average of US\$117.22 per person per night.

In contrast, the country's agriculture sector has struggled to keep pace with the growing demands of an increasingly competitive and open marketplace. Over the past three decades, the sector has suffered from a widening trade deficit fueled largely by structural inefficiencies in the system and changing global trading regimes. Between 1998 and 2007, Jamaica's food import bill increased from US\$466.6 million to US\$662 million, and its food trade deficit increased by approximately 58 percent from a deficit of US\$237.1 million to US\$375.2 million over the same period (PIOJ 1999, 2008). By the end of 2008, Jamaica's food import bill stood at US\$886 million, while total food exports amounted to only US\$264 million – a deficit of US\$623 million (PIOJ, 2009). These problems have been compounded by the recent spate of meteorological hazards (particularly hurricanes and droughts) impacting the sector. Between 2000 and 2010, Jamaica was impacted by as many as 14 hurricanes and 16 tropical storms, causing millions of dollars' worth of damage and losses to the agriculture sector (Mandal, Barrett & Smith, 2013). These negative trends have to be viewed against the backdrop of the country's current macro-economic state, which largely involves a widening balance of payments deficit, high debt burden, increasing inflation and continued economic austerity.

Within the context of a declining agricultural sector and a search for finding new means of enhancing tourism's contribution to the national economy, agriculture-tourism linkages have become particularly relevant to Jamaica's future development. According to data published in the *Annual Travel Statistics* in 2012, stopover visitor expenditure on food and beverages accounted for only 7.2 percent of total tourist expenditure, and amounts to US\$149 million. Bear in mind that this figure is grossly underestimated, as food and beverage are usually subsumed within some accommodation expenditures, especially in the case of all-inclusive hotels. Food and beverage sales in the tourism market can, therefore, provide a lucrative source of income for thousands of Jamaican farmers, and make a significant contribution to total foreign exchange earnings, once the majority of foods consumed by the sector are not imported.

The case studies presented in this section showcase examples of two Jamaican agribusinesses that have successfully managed to forge viable market linkages with the local tourism industry. While the focus of this report is on agritourism, the lessons to be learned from these two case studies are much broader in scope.

### **2.3.1 Woodford Market Garden**

#### **Brief History and Background**

Situated on more than three (3) acres of farmland, *Woodford Market Garden* is a small organic farm situated in the heart of the Blue Mountains, Jamaica. The idea of starting the business originated more than twenty years ago when Paul and Donna Noble became interested in

growing their own food to feed their family. In 1994, the Nobles began providing for their family from an edible garden. From the onset they were clear that they did not want to use chemicals and fertilizers on their farm. They started by growing leafy greens, herbs and vegetables that were difficult to source locally. This experience led them to start their own business.

At the time when the farm was started, many Jamaicans were not very salad conscious. This did not deter the Nobles, who started packaging and marketing their salad mixes, under the *Woodford Market Garden* label, primarily to hotels, and restaurants and a few supermarkets around Kingston.

Twenty-one years later, the farm still offers a very similar mix of products. While it may have changed and added new varieties, the basic product remains the same, and their ½ lb. box of certified organic *Super Greens Salad Blend*, which they hand deliver themselves to supermarkets, chefs, hotels and caterers each week, has become a well-loved product. The business generally employs between 10 and 12 persons on a full and part-time basis. Around 80 percent of staff hail from the community of Woodford. The business has one shade house on property, courtesy of a grant provided by the Caribbean Export Development Agency (CEDA). The farm also has several plant nurseries that are used to grow seedlings. The business has its own vehicle that is used to transport products to various market outlets on a weekly basis.



Figure 35: The *Woodford Market Garden* family (Donna Noble, owner, seated in the center)  
(Source: Courtesy of Donna Noble)

## Product Differentiation and Value Proposition

One of the main goals of the business is to offer a product that is delivered fresh from its farm to the table in the shortest possible time, rich in vitamins and minerals, beautifully presented with a variety of colors, textures and flavors, and grown with as minimum possible harm to the environment. Since the business' products are delicate and perishable, they are grown, reaped, packaged and transported with care, ensuring top quality product delivery to customers every time. The owners make sure to introduce each of their products to their clients (chefs, procurement officers, etc.), in order to ensure that they know how to use the different varieties on offer. They even provide advice on how to store and prepare their produce. In terms of quality standards, orders are packaged to meet chef and/or hotel specifications, thus, making sure each order is packed to retain the longest possible shelf life, and to save time in preparation.



Figure 36: Example of one of the *Woodford Market Garden's* Super Greens Salad Blend  
(Source: Courtesy of Donna Noble)



Figure 37: Donna Noble displaying some of the produce from *Woodford Market Garden*  
(Source: Courtesy of Donna Noble)

Ironically, the product that was a difficult sell at first – the offer of a unique range of salad mixes – is now the very thing that has set the business apart from its competitors in the local market. Many persons, including chefs, were not familiar with the produce at first, but really enjoyed it once they used it. The well-balanced and flavorful salad mixes is still one of the business' strongest selling points as customers have come to recognize that with this product, they could have the freshest salad greens on their table within a few minutes.

A unique trade mark for the business is the inclusion of an edible rose in each of its salad packages.



Figure 38: A salad dish made entirely from the *Woodford Market Garden's* Super Greens Salad Blend. (Source: Courtesy of Donna Noble)

*Woodford Market Garden* was the first entity to offer packaged salads to the Jamaican market (dating back more than 20 years ago) as well as the first certified organic product in the produce section of a number of local supermarkets. This earned the business the Ministry of Science, Technology, Energy and Mining's (STEM) Innovation Award in the category of Health, Wellness, Agriculture and Tourism in 2012. The business was also awarded the Jamaica Environmental Trust Award for Sustainable Agriculture in 2013.

What has remained a key selling point for the business is the fact that it continues to offer a unique range of certified organic products. There is currently no other locally certified organic product in the produce section of supermarkets across Jamaica.

Woodford's hand-picked packages of Super Greens Salad Blend are indeed a well-loved product on the supermarket shelves, sought after by salad lovers and chefs alike. The packages not only offer a consistently delicious and nutritious mix of salad greens, but the special attention paid to styling ensures each package is beautifully presented to the potential client.

## **Marketing and Branding**

Aside from presenting visiting customers with samples of new products, the business also provides product information and recipe sheets to its clientele. The business also has a website where customers are referred to for extensive information about the farm and its different activities. There is also a Facebook page where the owners post photos, offer descriptions of happenings on the farm and showcase its range of products. These strategies are intended to make customers feel a real sense of connection to the farm, as they can see how the produce is grown and even the persons who are responsible for growing these produce.

In terms of its client base, the business mostly targets hotels, restaurants and supermarkets for its wide range of fresh salad mixes, and hotels and craft stores for the new value-added products now on offer. The Nobles are also working on building their relationship with the tourist market by offering tours to the farm. This they hope will provide additional income to sustain some of the farm's activities and create even greater exposure for its products.

## **Main Business Partners**

The Nobles demonstrate a very broad and holistic view of their partners. The owners see the people in the local community of Woodford as their primary partners. This include the people from the community who work on the farm, as well as the local school and community groups who visit the farm occasionally to learn about sustainable farming practices.

The business is also in partnership with the Jamaica Organic Agriculture Movement (JOAM), and conducts training in organic farming practices for farmers across Jamaica. The business occasional hosts workshops targeting farmers, who express an interest in adopting sustainable farming practices.

The owners have also partnered with another agribusiness firm in the area, Belcour Preserves, which has been producing value-added products targeted at both the domestic and export markets for more than five years. Belcour Preserves brands itself as a Jamaican specialty food company that produces gourmet Blue Mountain honey, hot pepper sauces, savory condiments and a wide range of fruit preserves. In terms of the domestic market, the bulk of Belcour's products are sold locally to cafes, specialty food stores and tourist gift shops across the island. This partnership has produced an all-natural range of salad dressings and spice rubs under the Mountain Blue Farms brand. These products are now available in food service stores and tourist gift shops across Jamaica.



Figure 39: New line of products under the *Mountain Blue Brand*

The business also considers its many customers – caterers, chefs, major hotels and ordinary Jamaicans – who buy its produce on a weekly basis as its partners.

### **Opportunities for Diversification and/or Expansion**

A few plans for the future development of the business have been formulated. Most of these plans are geared towards diversifying the experiences and products on offer at *Woodford Market Garden*, and have set in train a number of initiatives. One such initiative is the partnership between the entity and Belcour Preserves, which have resulted in the production of a number of value-added products, the first being a line of dried seasonings. Also, in response to numerous requests for farm visits, the business will start offering Tour & Taste packages to the farm, where visitors will be able to see and experience a small working organic farm and enjoy a meal of the food that is grown on the farm. This initiative forms part of the recently introduced Blue Mountain culinary tour initiative, which is done in association with other farm owners in the area.



Figure 40: *Woodford Market Garden's* Tour & Taste staging

*Woodford Market Garden* is well suited for this venture given its location in the heart of the Blue Mountains and being just a few kilometers away from the city of Kingston. The venture would involve a walking excursion of the farm itself, which will include a guided tour of its plant nurseries, open field plots, shade houses, edible garden and mini forest trails.



Figure 41: Evening dinner setup at the family home, *Woodford*  
(Source: Courtesy of Donna Noble)



Figure 42: Dinner at one of the Tour & Taste staging by *Woodford Market Garden*  
(Source: Courtesy of Kevon Rhiney)

## Risks and Challenges

It is not surprising that one of the business' biggest tasks is to ensure that it meets its sales target every week. Keeping the market satisfied with a continuous supply of high quality food products is very important, not only to maintain the market but also to ensure that the business is able to sustain its triple bottom line, especially with regards to paying workers on time and consistently.

Similarly to most small and medium enterprises in Jamaica, *Woodford Market Garden* has experienced challenges accessing financial assistance, whether as grants or loans, from the local financial market. Over the years, the business has benefited very little from grant funding. As such, most of its activities, until recently, have been financed through personal savings. Fortunately, both Paul and Donna Noble have established careers in the media and entertainment profession. The couple owns and operates a film production company called Mongoose Productions Limited. Donna is also a Prop/Food Stylist and has also worked as Set Decorator on a number of featured films and commercials over the years.

Another major challenge relates to the general absence of good infrastructure in the area, especially with regards to accessibility. This presents a challenge in ensuring timely and safe distribution of food items to the market via existing road networks in the Blue Mountain area. The cost of maintaining the vehicle belonging to the business is usually high given the poor and deteriorating conditions of the main road *en route* to *Woodford*.

Finally, recent fluxes in seasonal weather patterns pose a challenge to the productivity of the farm. There is a genuine perception that the climate is changing and that it is becoming increasingly more unpredictable to farm in the area. In fact, up to the time of the interview in February 2015, the island was experiencing a prolonged meteorological drought that started from summer 2014. Recently, *Woodford* and surrounding communities have been impacted by a spate of bush fires that have caused severe damage to farms in the area; the coffee industry being the hardest hit. If these conditions persist, they could pose a serious challenge for the sustainability of farming in the area.

### 2.3.2 Jamaica Standard Products Limited

#### Brief History and Background

*Jamaica Standard Products Limited (JSP)* is one of Jamaica's oldest and largest family owned and operated coffee growing companies. The company has been owned and operated by the Minott family for over 72 years. The company originally started out with the cultivation and production of High Mountain coffee in the early 1940s. By the 1980s, it started producing its own line of Blue

Mountain coffee products. It was not until the late 1990s that the company started manufacturing a line of non-coffee products.

Today, *JSP* owns several brands, including the Baronhall Estate, Baronhall Farms, Island Blue, Jamaica Blue Mountain Coffee, Blue Baron Estate, and Jamaica High Mountain Coffee brands. The company produces a unique line of genuine Jamaican sauces and spices from its Baronhall farms and owns five (5) retail stores between Montego Bay and Ocho Rios – Jamaica’s two leading resort towns.



Figure 43: Selection of coffee-based products manufactured by *Jamaica Standard Products Limited*

The Baron Hall Estate, located in the parish of Saint Ann, is the largest coffee farm in Jamaica spanning roughly 300 acres in size. Blue Baron Estate on the other hand, located in the parish of Clarendon, is approximately 120 acres, with 65 acres under cultivation. The company employs around 200 permanent staff (including farm workers and administration), and up to 600 persons during the high season. Blue Mountain coffee beans are purchased from farmers in the Blue Mountain region and then transported to the *JSP* head office and manufacturing plant in Christiana, Manchester for processing.

## Business Structure

*Jamaica Standard Products* is a limited liability company that has a complex business structure due to the range of products that are manufactured and distributed. The head office is responsible for all accounting, marketing and sales related issues for the company. The company owns and operates two coffee estates and purchases Blue Mountain coffee beans from farmers under medium to short term contracts. Pulping, drying, hulling and grading of the coffee beans are usually done on the farms before they are transported to the company's factory in Christiana. At the factory, the beans are then roasted, packaged and labeled for distribution. Some green beans are exported directly from the farms to retailers in Japan and Europe.



Figure 44: Labels being stitched on to coffee packages at *Jamaica Standard Products Limited*

Approximately 85 percent of the company's product offerings are coffee based. Roasting and packing are done under the company's Island Blue, Baron Hall and Blue Baron labels. The company also manufactures a number of non-coffee based products including a wide range of jams, meat rubs and spices



Figure 45: Selection of uniquely packaged culinary gift items at *Jamaica Standard Products Limited*

In terms of marketing and distribution, the company supplies a range of market outlets in Jamaica including hotels, supermarkets and restaurants. The company also operates a total of five gift shops across the island under its *Coffee and Spice* brand. Three of these gift shops are located within two of Jamaica's leading resort areas (Ocho Rios Cruise Pier, Rose Hall and Free Port – both located in Montego Bay), while the two remaining stores are operated out of the country's two international airports. It is estimated that on average, visitors account for 80 percent of sales from the gift shops and locals account for the remaining 20 percent, as they purchase gifts for relatives and friends when travelling abroad. The company also sells to other local coffee companies and exports to retailers overseas.



Figure 46: *Baronhall Estate* gourmet coffee sachet used by some Jamaican hotels



Figure 47: *Baronhall Estate* assorted gift packages

Clients are, therefore targeted through varying avenues. The locations of the shops provide high visibility for the company, likewise its website, which provides information on the Estate and the

different products on offer. Internally, the sales department comprises sales representatives, merchandisers and marketers who also aid in the promotion of the company's products.

### **Partner Networks**

Part of the company's success has to do with its ability to forge and maintain a number of strategic partnerships and alliances over the years.

Hotels are targeted, as their markets prove to be more lucrative and reliable when compared to other market segments. Hotels, however, have to be approached with attractive prices as these entities are very price sensitive and always want the best possible deals. The collection of payments is oftentimes not an issue, as contracts are usually adhered to and payments are received within a sixty-day period. This delayed payment period is largely due to how the hospitality industry works – all-inclusives usually receive their payment from travel agencies retroactively. The major hotel clients for *JSP* include Gran Bahia Principe, Iberostar, Grand Palladium, DeCameron and Jamaica Inn. (Spanish hotel chains make up the company's largest clientele.) The company maintains close relationships with its clients through constant communication, whether via phone calls, email or regular face-to-face visits.

Relationships also exist with all major coffee entities in Jamaica, including the Coffee Industry Board and major coffee manufacturing companies such as the Mavis Bank coffee company. These alliances exist for establishing agreements on prices (ceiling/floor pricing) and setting standards for the industry.

The company also maintains partnerships with several smaller agro-processing firms that have customized and packaged products using raw material supplied by *JSP*. The company also buys and resells some of these items in its gift shops. Customized baskets are also done for hotels. These are used as gifts for valued customers.

### **Company's Value Proposition**

The company's value proposition is both quantitative and qualitative. Quantitative in that the business is cost effective, paying keen attention to both price competitiveness and efficiency. It also has a qualitative aspect where overall customer experience and satisfaction is valued. In both regards, all coffee from the farm is subjected to a cup quality test before being packaged. This test determines whether the coffee is sold or discarded, and ensures that the company maintains its reputation for producing coffee products of the highest quality. In fact, the company is arguably more value- than cost-driven. There is a tremendous amount of emphasis placed on

maintaining the highest standards in terms of product quality and customer satisfaction. Added to this, the company is also ISO certified and is now in the process of attaining HACCP certification.

*JSP's* longstanding experience in the coffee industry has provided it with an edge above its competitors. The company tries to maintain a presence in the market at all times, and this is evident through its involvement in trade shows over the years and other promotional activities, such as social media, which has resulted in its brand being known both locally and abroad. For example, a number of the company's products, including various blends of its Jamaica High Mountain Coffee and Jamaica Blue Mountain Coffee brands, can be bought online on Amazon.

The company is also involved in all aspects of the coffee value chain, which gives it a competitive advantage over its competitors. This can be seen in terms of the company's ability to maintain a competitive price point as well as its strong presence in the local market.

## **Challenges**

The company has experienced its fair share of challenges over the years. While some of these challenges can be categorized as environmental, others are more economic in nature. It is important to note that while these issues are discussed separately in this case study, in reality, these shocks and challenges oftentimes impact businesses at the same time. The responses to these problems, therefore, cannot follow a linear path, as the problems themselves are non-linear and multidimensional.

### *Natural hazards*

In recent years, Jamaica's agricultural sector has been severely impacted by a multitude of climate-induced shocks, with droughts and hurricanes inflicting the most damage to the industry. Since 1990, Jamaica has experienced several droughts, with the most severe in terms of intensity and economic impact occurring in 1997, 2009 (extending into 2010) and 2014 (extending into 2015). The severity of these droughts can be seen in the significant water shortages experienced across the island, resulting in increased losses in agricultural-based output and livelihoods. The coffee industry has been one of the hardest hit sectors in terms of economic losses. The 2014/2015 dry spell was made worse by the outbreak of several major bush fires in the Blue Mountain region that has one of the highest concentration of coffee farms in the country. Climate-induced hazards like these no doubt pose a threat to the viability of companies such as *JSP*.

### *Pests and diseases*

Another major challenge for the company is the spate of pests and diseases that have affected the coffee industry over the years. The Coffee Berry Borer (*Hypothenemus hampei*) and the Coffee Leaf Rust (*Hemileia vastatrix*) diseases have been particularly damaging to the sector, primarily in terms of crop yield, berry quality/grade and, in some extreme cases, plant mortality. It is estimated that more than 50 percent of Jamaican coffee trees have been affected by the leaf rust disease. Coffee, being a perennial crop, can take a much longer time to recover from these bio-physical shocks compared to other short-term crops.

### *Market instability*

Jamaica's coffee industry is very sensitive to global economic shocks. The recent global economic recession is a prime example of this. Coffee demand from Japan, the island's primary market, fell drastically. This lasted for approximately two years. The devaluation of the Jamaican currency only made matters worse for the company. The devaluation of the Jamaican dollar meant more had to be spent on imported raw materials, such as the burlap fabric used to package a number of the company's coffee products. In terms of trade, the company saw a significant decline in sales in both its overseas and domestic markets. Even though visitor numbers remained relatively high throughout the recession years, expenditure had actually declined somewhat.

During the recession, the company had to draw on existing capital and resources to cover shortfalls. The entire staff (including senior administration) had to take pay cuts and some of the permanent staff had to be placed on shifts. The company also had to find innovative ways to reduce its expenditure, which it is still benefitting from post-recession. It is also important to note, that in retrospect, *Jamaica Standard Product Limited* actually seemed to have fared better during the recession when compared to other coffee companies partly due to its relatively better performance in the domestic market (that was less volatile compared to the export market), and the fact that the company had more to offer than just coffee products.

### *Grant funding*

Difficulty in accessing funding as a private and family-owned company is a major challenge for the company. It is believed that there is a preference to fund farmers' co-operatives and small agricultural firms as against large privately owned companies like *Jamaica Standard Product*, despite the genuine need for help by these businesses as well.

## 2.4 Agritourism in the Caribbean – Case Studies from Saint Lucia

### Background

Across the region and particularly in St. Lucia, tourism and agriculture remain two of the most critical pillars in the economy. Although the contribution of agriculture to St. Lucia's Gross Domestic Product (GDP) has been on the decline over the last two decades, agriculture still accounts for the direct employment of nearly 14 percent of the labor force, particularly in rural communities. A major blow to the agricultural sector came as a result of the loss of preferential regimes for Africa, Caribbean and Pacific countries. This caused severe social dislocation in some rural communities in St. Lucia, particularly in the Southwestern communities that relied heavily on agriculture. With the loss of preferential treatment, the tourism industry became increasingly important to the economy. Many attempts have been made to exploit linkages between agriculture and tourism, but these efforts remain insufficient, although it is widely known and accepted that agritourism provides significant potential economic benefits for rural communities.

The Southwestern section of the island is known for being a main agricultural hub. Additionally this section of the island is known for its natural scenic appeal, rich historical and cultural heritage and for being the center for the production of local craft. Therefore, there is a strategic focus by the local authorities, such as Inter-American Institute for Cooperation on Agriculture (IICA), the Ministry of Tourism, the Saint Lucian Tourism Board, the Ministry of Agriculture, and the Tainos, to seek ways to link agriculture and the historical and cultural heritages of the rural communities to the vibrant tourism sector. This is being done as a means to mitigate high unemployment, generate income opportunities and to bolster economic activity. The success of such interventions, however, are contingent upon organized and sustainable approaches, which would ensure that there is equity in the distribution of wealth, and that rural communities are fully engaged and understand their roles and responsibilities. If the benefits are being realized by the rural communities, it is likely that they will take ownership and ensure the sustainability of the interventions.

This section of the report will examine three different organizations that participate in agritourism in Saint Lucia. The data was obtained from site visits carried out from December 8-9, 2014.

## 2.4.1 Island Sweet Pineapple Farm

### Background

*Island Sweet Pineapple Farm* is located in the community of Rivere Doree, in the village of Choiseul, St. Lucia. The farm covers an area of nineteen acres, but only ten acres are under cultivation. The farm has been in existence for the past fifteen years and is owned and operated by a member of the Saint Lucian Pineapple Co-operative Society Limited, Mr. Compton Francois, and his family. The farm produces pineapples, watermelons, and a wide range of vegetables, curcubits and tree crops. In the past, the farm produced only tree crops for sale and household use, but it has since diversified into growing pineapples and watermelons as its main selling crops.



Figure 48: *Island Sweet Pineapple Farm*

### Business Structure

*Island Sweet Pineapple Farm* grows and sells a large variety of crops. The farm's main selling crop, however, are pineapples. Other crops grown on the farm include cucumbers, watermelons, and some vegetable crops. In addition to growing and selling produce, there is also a tour package offered, where visitors are welcomed to tour the farm, participate in farming activities and sample fresh farm produce. The farm employs six fulltime laborers from the community and hires nine additional part-time employees during periods of harvest or other heightened activity.

*Island Sweet's* main markets are hotels, especially those in the village of Choiseul and in the town of Soufriere, but the farm also sells to supermarkets, members of the public, and the Saint Lucian Pineapple Co-operative. The fruits and vegetables grown on the farm are marketed for sale using 'word of mouth' facilitated by the chefs from the surrounding hotels who visit the farm. Additionally, information about the tours offered is also passed along via 'word of mouth' by tourists and hotel operators who visit the farm.



Figure 49: Compton Francois with recently harvested pumpkins at *Island Sweet Pineapple Farm*

The business is financed using the profits accrued from day-to-day sales of farm produce. In addition to this, funding is received from IICA, while the Ministry of Agriculture and the Tainos provide technical support and training to the farm workers. No bank loans are used to finance the business, as the owner believes that bank terms and conditions are unfair. To remain competitive in the industry, the owner has sought to change his farming methods from that of his parents and grandparents. He now uses modern technology and practices mixed cropping and crop diversification in order to mitigate against the effects of crop loss and to adjust swiftly to market fluctuations and demands.

## Agritourism Component of Business

In recent years, the farm has sporadically hosted small tours for cruise and stay-over visitors, particularly those attached to the nearby hotels, which are also the main buyers from the farm. Tourists generally visit the farm to sample its produce and to spend the day observing and participating in various farm activities. Around the property, there are a variety of informative signs under different trees. These signs display information about the trees and their different medicinal properties (see figure 50), and was done by Mr. Francois and his team in an effort to enhance their tourism product.



Figure 50: Informative sign about the medicinal properties of the Moringa tree at *Island Sweet Pineapple Farm*

Unfortunately, *Island Sweet Pineapple Farm* has not taken full advantage of touristic opportunities due to lack of adequate infrastructure. There is need for the establishment of tourist related facilities such as a kitchen, open dining area, toilets, office space, reception area, storeroom, security hut and parking area. Once these are established, Mr. Francois intends to broaden the farm's appeal and increase its viability by formalizing a tour that will demonstrate the value chain of the pineapple and other non-traditional fruit and vegetable crops.

In addition to offering tours, *Island Sweet Pineapple Farm* also operates a Pineapple Demonstration Plot, which was established with grant funding under the European Union Special

Framework of Assistance, 2005, on behalf of the St. Lucia Pineapple Co-operative Society Limited. Demonstration plots provide training to members and prospective members of the Pineapple Co-operative in modern technologies for pineapple production. These plots are visited by agricultural science students from secondary schools in the community.

### **Challenges, Risk and Mitigation**

Like most other farms, typical farm related challenges arise from pests, which threaten the health of the crops. On Mr. Francois' farm, however, this is minimized by using good farm practices and modern technologies.

*Island Sweet's* main challenge is the absence of capital to build the essential facilities – rest rooms, a kitchen, eating area, parking area, among others – needed to maximize the benefits of tapping into the tourism market. Mr. Francois believes his current efforts are minuscule and that much more benefits can be derived from scaling up the farm and gaining a well-recognized presence in the tourism market.

According to Mr. Francois, *Island Sweet Pineapple Farm's* greatest risk is exposure to natural disasters. In 2013, the farm was damaged by the effects of a trough, and in 2014 it experienced a drought. To recover, and to mitigate against the effects of natural disasters, short term crops, such as cucumber and watermelon, are planted throughout the year. These cash crops will bear and be ready for sale in a short space of time (unlike the pineapple which takes almost a year to grow) and, thus, generate the necessary income needed to keep the farm operational.

### **2.4.2 Zion Lion Farm**

#### **Background**

*Zion Lion Farm* is an organic farm located at the base of the Pitons on the boarder of Soufriere and Choiseul. This farm grows a variety of tropical fruits, some of which are indigenous to the island, in a type of permaculture and mixed culture setting. The farm is divided into small plots surrounded by stone walls made of volcanic rock (see Figure 52). Its soil is a mix of light clay and sand, a combination that is good for agriculture and serves as a type of hydroponics. The farm is irrigated using gravity fed water taken from a neighboring river. Because it is an organic farm, no artificial fertilizer is used to grow crops; instead horse manure is used as fertilizer. In addition to participating in subsistence level farming, *Zion Lion Farm* offers an official tour to its visitors. The tour is classified by the operators as a 'Farm to Table Carib Beach Barbeque Feast'.



Figure 51: *Zion Lion Farm*



Figure 52: Small farm plot with a variety of crops bordered by a man-made stone wall at *Zion Lion Farm*

Before being formally utilized as a farm, the land was completely overgrown with vegetation. Mr. Paul Clifford, who was then the care taker of the land, tasked with preventing squatting, with the aid of his family and community members developed it to its current state. The land has no

clearly defined owner at the moment; as such the Crown Lands of Saint Lucia is in the process of getting Mr. Clifford and company full ownership of the land.

### **Business Structure**

At present, the ownership of *Zion Lion Farm* is under debate; however, the idea to develop the land space into an agritourism product is a project of Paul Clifford, his family, and local crafts people in the surrounding community. Paul Clifford, Sherene Patterson, and a few other members from the community currently operate the farm. The operators use the appeal of the farm's natural surroundings as their main selling point when trying to attract visitors. According to Ms. Patterson, the farm offers to its visitors a space for peace, love and harmony. The farm is also marketed as a wedding destination for both locals and foreigners, and as a venue to host faculty parties. Since there is no marketing manager or administrator for *Zion Lion Farm*, the onus is on Sherene Patterson and Paul Clifford to develop and carry out marketing strategies. Marketing is mainly done through the use of social media (Facebook), websites such as tripadvisor.com, travel blogs and through 'word of mouth' by tourists who visit the farm.

The largest customer base for the farm comes from the tourism sector, especially tourists visiting from European countries. Locals, however, also visit the farm. According to Mr. Clifford and Ms. Patterson, their main partners in making this business a success are members of the Rastafarian community who make the utensils used by the visitors for cooking and eating, Mr. Clifford and his family who provide the official farm tours, other members in the community along with Mr. Clifford who cook the meals for the visitors, and lastly, local fishermen. Since operational cost on the farm is kept at a minimum, *Zion Lion Farm* is mainly financed using the profits gained from the tours; however, when money to operate the farm is low, Ms. Patterson seeks employment and uses her earnings to keep the farm operational.

### **Agritourism Component of the Business**

*Zion Lion Farm*, as mentioned before, offers a tour to visitors, which the operators classify as a 'Farm-to-Table Carib Beach Barbeque Feast'. Visitors are able to spend the day touring the farm, relaxing on the beach, exploring the surrounding hills, swimming in the rivers and the mineral bath, which is only a few minutes away. The visitors are also provided a meal in their tour package. As a part of its strategy to make its tour unique, *Zion Lion Farm* emphasizes the use of all natural products derived from the surrounding environment for both food preparation and consumption. The food produced is also prepared using only the organic fruits and vegetables grown on the farm; no processed food ingredients are used in the food preparation process.

When visitors tour the farm, they are allowed to use utensils made from calabash, clay and other naturally occurring materials on the farm and around the Pitons. These cooking and eating instruments, as previously stated, are made by members of the Rastafarian community.

According to the operators, the main benefit derived from tapping into the tourism market, and agritourism in particular, is the employment provided for residents such as fishermen, single mothers, and youth living in the community. By developing the farm, it is believed that additional tourism products and tours, such as bicycle tours, can be created. In an effort to improve the farm, its operators are now constructing dirt laden walkways bordered by stone walls around the farm so that visitors may tour the farm with ease and with some form of organization. The walls also serve the dual purpose of dividing the land into small farming plots. This construction is made possible through the assistance of IICA.



Figure 53: Stone walls made to border farm plots and create walkways at *Zion Lion Farm*

In addition to the need for proper walkways, it was noted that in order for the farm to develop into a better tourism product, proper signage is needed around the farm. Support from the government is also seen as an imperative, and so an appeal for support from the local government and agencies has been made. It is believed that this support and endorsement would allow *Zion Lion Farm* to have some status in the St. Lucian tourist industry, which would in turn give the farm greater market access and access to capital for farm improvement and expansion. Despite the lack of support from the authorities, it is the belief of the farm operators that they

have a very good relationship with the tourism industry outside the region, although the Saint Lucian Tourist Board has reportedly ignored them.

### **Challenges and Risk and Mitigation**

Since operational costs on the farm are kept at a minimum, financial and infrastructural problems are almost none existent. This, however, does not negate the fact that the operators still experience challenges. The main challenge experienced by *Zion Lion Farm* is that the operators undergo opposition from the other players in the tourism industry and the authorities responsible for tourism and development on the island. In addition to this, exposure to the adverse effects of natural disasters, such as droughts and troughs, also occasionally pose a problem to the business. Currently, no strategy is being employed to mitigate against this; the operators are simply dependent on the environment to reboot itself.

The main risk experienced by *Zion Lion Farm* is caused by the people who are intended to benefit from its operations – the community members. The residents wish to cut down the trees on and near the farm for various uses. This practice would undermine the farm’s main selling point – its natural beauty. Therefore, it is increasingly becoming a major problem to preserve the natural aesthetics of the area.

### **2.4.3 Consolidated Foods Limited**

#### **Background**

*Consolidated Foods Limited (CFL)* is a St. Lucian company formed in 2004 and involved in food retail and food distribution. By supporting the local agricultural and manufacturing companies on the island, *CFL* is able to provide food and non-food products to locals, small businesses, hotels and tourist alike. The company owns and operates three different types of supermarket chains. For the purposes of this study, only the perishables section of *CFL*’s operations was examined. The perishables department is responsible for the buying and selling of fruits and vegetables in the different supermarkets *CFL* owns and operates.



Figure 54: *Consolidated Foods Limited* head office, Saint Lucia

### **Business Structure**

The ownership of *CFL* is divided into three parts: 60 percent to the Neal and Massy Group, 30 percent to the JQ Charles Group of Companies and 10 percent to the staff. The business is financed using money earned from sales. In alignment with the company's core values, the perishables section of the company does not only procure and sell fresh produce to customers, but it also seeks to build and support local farming institutions in an aim to strengthen farmers and the St. Lucian economy. The department works closely with the local farming community and niche industries, like the egg industry, by clustering farmers so they can work together and grow the crops – banana, cocoa, roots and tubers – needed in the market. In addition, once these crops are produced, *CFL* provides a market and technical support to farmers. They also provide a farmer's loan programme that offers a loan of EC \$5,000 to each farmer. This loan, however, is not given in cash; it is given in farm inputs of equal or lesser value. This ensures the money goes to its intended use. According to Mr. Dunstan Demille, Perishables Manager of *CFL*, this loan has helped a large number of Saint Lucian farmers to stay in farming. Instead of waiting for the government to empower farmers and the community, the perishables department makes these connections in order to fill the gaps in the economy.

The main customer base for the perishables department is made up of visitors to the different *CFL* owned supermarkets. These visitors include hotel operators, market and supermarket

vendors, and ordinary citizens. Their customer base also includes yacht operators and cruise ship visitors who come to St. Lucia throughout the year. The goods offered by the perishables section of the company are marketed directly through *CFL*'s supermarket chains. *CFL*, also, occasionally does a video series to educate the public about its programs and new products before they are introduced to the market. The perishables department intends to diversify product offerings, in the near future, by adding raw seasoned chicken to the product line, as well as a baked seasoned chicken. The department would also like to develop a niche market for several products.

### **Agritourism Component of Business**

*Consolidated Foods Limited* does not have a direct link with the tourism industry; currently the company sells its produce to hoteliers and cruise ship operators who cater to tourists. Its closest link with the tourism industry comes in the form of fulfilling food requests sent in by yacht owners who visit the island at particular times of the year. Mr. Demille stated that the main benefits of tapping into this market are:

- Customer loyalty
- Profits
- Gaining new customers through good reviews

*Consolidated Foods Limited* intends to expand and solidify this relationship by going into organic food production.

### **Challenges, Risk and Mitigation**

*Consolidated Foods Limited's* perishables department indicated that its main risk is that, with the new initiatives they undertake, there are numerous unknown variables at play. They are sometimes not sure how an item will sell on the market or if farmers will honor their commitments once they have received loans. There is also always risk associated with buying perishable items – the fruits and vegetables are susceptible to spoilage if they are not transported, packaged and stored properly.

Mr. Demille emphasized that there is minimal risk in supplying the yachts and cruise ships. The main risk is that of spoilage or damage of the produce before they reach the consumers. Fortunately, *CFL* does not incur much loss as the company has established an efficient information technology department, which has developed a system to protect the company from major financial loss, using special forecasting software. This software allows *CFL* to adjust its operations accordingly to minimize loss.

In 2010, however, St. Lucia experienced a drought, which devastated many farm lands. To ensure its operations were not severely affected, *CFL* pooled all the resources of its farmers and kept regular meetings to advise and update farmers.

## **2.5 Agritourism in the Caribbean – Case Studies from Suriname**

### **Background**

The Republic of Suriname is situated along the northeastern Atlantic coast of South America, spanning an estimated area of roughly 165,000 square km (64,000 square miles) in size. Suriname has a population of approximately 542,000 people, making it the smallest sovereign state in South America. The majority of the country's population lives along its north coast, where the capital (Paramaribo) is located. The country is situated on the Guiana Shield and shares border with French Guiana to the east, Guyana to the west and Brazil to the south. Suriname is rich in natural resources and biodiversity. The southern sections of Suriname consist of mostly tropical rainforest, covering around 80 percent of the country's total land surface.

Suriname has a fairly strong economy, generating a Gross Domestic Product (GDP) per capita of US\$8,910 (2012 estimates) and recording a real average annual growth of 4.4 percent for the period 2000-2012 (IMF, 2014). The economy is, however, highly dependent on a limited number of extractive industries. Key export sectors include alumina, oil and gold. The bauxite/alumina industry alone accounts for more than 15 percent of GDP and 70 percent of export earnings on average. When combined, exports of alumina, gold, and oil generally account for about 85 percent of exports and a quarter of government revenues (CIA World Factbook, 2014).

Despite the importance of the mining sector, agriculture remains a significant component of Suriname's economy. Key commodity exports include rice, bananas and shrimp as well as coconuts, peanuts, and a range of citrus fruits and forest products. Based on 2013 estimates, agriculture contributed roughly 8.9 percent to GDP, compared to 36.6 percent for industry and 54.5 percent for services. The sector also accounted for 8 percent of the country's labor force (2004 figures), while industry and services accounted for 14 percent and 78 percent respectively (CIA World Factbook, 2014).

Given Suriname's heavy reliance on the mining industry, particularly alumina and gold, the country's economy is quite vulnerable to global commodity price volatility. Added to this is the highly uneven distribution of wealth in the country. Suriname's levels of poverty and inequality are a cause for concern. The country ranked 105 out of 187 countries in the UNDP's 2012 Human Development Index, and around 70 percent of the population falls below the poverty line. There

are also significant inequalities between the generally more affluent coastal areas and the rural interior.

Economic diversification is therefore critical if Suriname is to achieve sustainable growth and development over the medium and long term. Ecotourism for instance, could offer a lot of potential benefits for the country given its extensive and unspoiled natural landscapes, outstanding biodiversity and rich culture. Linking ecotourism interests with local agriculture would provide tremendous opportunities for rural development, income generation and poverty alleviation. The two case studies highlighted in this report illustrate ways in which local small and medium-scale agribusinesses can successfully tap into this emerging niche market.

### 2.5.1 GOPEX International NV

#### Background

*GOPEX International NV* is a family-owned and operated agricultural trading company located in the small rural farming district of Saramacca, which is situated in northern Suriname. The company has been in existence for more than thirty years. Before establishing the business, Mr. Bhiesnoepersad Gopal (current CEO) worked with his father and uncle on one acre of family-owned land. In 1985, he started supplying fresh vegetables to local exporters in Suriname. This lasted for approximately fourteen years. By 1998, Mr. Gopal had started exporting fresh produce directly to Holland. This was discontinued shortly after, as the importers in Holland did not pay upfront.

In 2004, Mr. Gopal was selected to participate in a fair at the Agriculture School in Holland, where he was able to forge a number of strategic alliances with Dutch-based food retailers. He restarted exporting to Holland in the same year, and in 2006 he added a cold chain facility to the business. *GOPEX International* was the first agri-firm to have done this in Suriname, and is seemingly still way ahead of its competitors in the distribution of select frozen foodstuff for both the local and overseas markets. Attending the fair was certainly instrumental in Mr. Gopal's decision to re-enter the export market as well as to expand and scale up his product offering.

#### Business Structure and Key Activities

Over the years, *GOPEX International* has grown to become a medium scale agricultural enterprise. The company has two sections: one that deals with farming and the other for export. The company exports a range of fresh produce to Holland, including bitter gart, okra, pepper, and African eggplant. The main target group is the Surinamese expatriates living in Holland,

particularly Amsterdam. The company also grows a variety of herbs and spices including celery, lentils, parsley, chives as well as fruits, such as mangoes.

The company does some processing on site. For now, this is limited to the peeling and cutting of assorted fruits and vegetables. The company also does its own packaging and labeling. Fresh fruits and vegetables are transported to a central area, after which they are washed, sorted and placed in individual packages. A label is then affixed to each package with the company's name, logo, as well as product and contact information.



Figure 55: Fresh mangoes and assorted fruits from *GOPEX International*

The company now directly employs a total of fourteen persons in addition to Mr. Gopal and his two nephews. Of that number, there are eight contract farm workers from the Philippines on site, four packers and two supervisors/quality managers. The quality managers are employed to assist with managing the daily operations of the business, while Mr. Gopal manages the farm himself. In addition to the contracted farm workers, Mr. Gopal has six out-growers who currently supply him with a range of fruits, vegetables, herbs and spices. The company offers these out-growers a fixed price for the year, and provides input – seeds, fertilizer, etc. – to each of them as well.

One of the key distinguishing features of the company is its adherence to food safety standards. In 2006 the company started its application for HACCP certification, which it attained in 2010, making it the first and only company in Suriname's agricultural sector to have received this certification. Another first for a Suriname company is *GOPEX International NV's* attainment of ISO 2002 certification in 2014. The company is currently applying for Global GAP certification. This certification demands a lot of adjustments to the way the company is currently managed and operated. Mr. Gopal has already made a few changes to the site that are in line with Global GAP standards. For instance, the wooden tray tables that were once used for the cleaning and processing of fresh produce have now been replaced with stainless steel metal trays. Mr. Gopal has also acquired a number of motorcycles for his farm workers so they can have fairly good access to the restrooms on the seventy-five hectare property while working in the field. The company is still, however, a far way from being ready for Global GAP certification. Among the list of things to do, are the following:

- Separation of processing (e.g. peeling and cutting of fresh fruits and vegetables) and packaging to avoid any possibility of cross-contamination
- The overall facility needs to be expanded to allow for the allocation of designated areas for the different activities, for example, storage, washing, processing and packaging
- In order to be Global GAP certified, all farming activities will have to take place on property



Figure 56: Mr. Gopal showcasing field training manuals for the Global GAP Certificate

Most of these activities were initiated through Mr. Gopal's own initiative, though he has received significant assistance over the years from a number of local partners. While in Holland in 2004, he visited the Inspection Department to see what was required in terms of food safety standards for exports. He has also collaborated with the Ministry of Agriculture and Bureau of Standards in Suriname. The Ministry provides agriculture extension support, while the Bureau provides advice and updates regarding food safety requirements.

In terms of infrastructure, Mr. Gopal has expanded the facility to include a post-harvest and food processing facility. Currently, all of the company's fresh and processed produce are stored on property. There is a small cold storage room in the facility where products are stored after they have been packaged for distribution. This room allows the company to harvest produce early, and keep them stored in the cold storage facility until they are needed for distribution.



Figure 57: A view of the cold storage facility at *GOPEX*



Figure 58: One of several greenhouses at *GOPEX*



Figure 59: Inside one of several greenhouses at *GOPEX*

There are four greenhouses currently on the property, and there are plans in place to add twelve more. This plan is largely based on a request from the owners of the Kentucky Fried Chicken (KFC) franchise in Suriname that all their fresh food supplies be grown in greenhouses. This is part of the food chain's food safety standards requirement. Mr. Gopal reported that once all the greenhouses are completed, he will be able to satisfy the contract he has to supply all the tomatoes, sweet peppers and cabbages for both KFC and Pizza Hut.

A significant portion of the land is irrigated, and given how flat the property is, not much pressure is needed to pump the water to the crops. The company also owns two refrigerated trucks that are used to transport goods to the different market segments.



Figure 60: A portion of the farm still under open field cultivation at *GOPEX*

The slate of recent awards that have been granted to the company, serve as testament as to how well the business is doing. In 2013, for instance, the company was recognized as being the most sustainable farm in Suriname. Mr. Gopal was recognized for using organic pesticides to combat pests and diseases. The company also strives to maintain a high quality for its products through buying new seeds every five years and by renovating the old post-harvest facility to include a cold storage room. Temperature-sensitive crops, such as African eggplant, are placed in the cold storage facility before they are packaged. The company's use of refrigerated trucks to transport

its products plays a key role in preserving food quality as well. Additionally, the company uses a *trace back system* (TBS), which means the firm is able to track exactly which farm a particular item came from and the date it was sourced.

In an effort to maintain product quality and food safety standards, multi-media presentations are made to workers every month. Mr. Gopal gives these presentations with the assistance of a representative from the agriculture ministry. Sometimes the presentations are done in collaboration with one of Mr. Gopal's quality manager. Some of the topics covered include the importance of wearing hand gloves, importance of post-harvest management, and proper ways of applying sprays to crops.

### Marketing and Food Distribution

The company produces food for distribution in both the local and export markets. In terms of the export market, the company makes shipping arrangements for its overseas clientele. GOPEX packages and exports a range of fresh agricultural produce to wholesale companies in Holland, which in turn distribute to supermarkets and local retailers mostly located in Amsterdam and Rotterdam.



Figure 61: Products being prepared for distribution at GOPEX

In terms of the domestic market, the company currently supplies a wide range of fruits, vegetables and herbs to KFC, Pizza Hut and a number of other restaurants and hotels located in Paramaribo. The company has two cold storage vehicles that are used to transport fresh produce to the different local food establishments. Mr. Gopal is now planning to get an extra vehicle to better manage the increasing demand for his products. His new deal with KFC and Pizza Hut alone is forecasted to increase his sales in the domestic market by over 30 percent.

There is still scope for the company to expand its share of the local market, particularly in terms of sales to hotels and other tourism food establishments. Torrarica and Best Western, two of the largest hotels in Suriname, have both expressed an interest in working with Mr. Gopal, but he has not started to supply them as yet. Mr. Gopal reported that he used to supply a lot more hotels (up to 4 years ago); however, he had to scale down his operation due to the company's inability to meet the hotels' food quota requirements on a consistent basis. As such, Mr. Gopal believes that he will have to take on more laborers if he is going to be able to successfully supply these hotels. He would probably have to hire a few more out-growers as well, to guarantee an adequate and consistent supply to the market. In this regard, Mr. Gopal reiterated several times that food quality, consistency and volume are very important for the tourism market. He is keen on growing his company's relationship with the tourism market, since hotels tend to pay more compared to other market segments. Hotels in Suriname also pay upfront on a weekly basis.

In Suriname, unlike in other Caribbean territories, local suppliers can potentially enjoy both comparative and competitive advantages when compared with importers of fresh food products. The cost for importing fresh produce is so high that local suppliers can potentially out-compete importers in respect to price. According to Mr. Gopal, importers might charge SRD \$7.50/kg for sweet peppers, while he can sell similar peppers for SRD \$3.50/kg. The main determining factor, however, in having a commanding presence in the local market is the ability of local suppliers to meet the food quota and quality requirements of hotels on a consistent basis. According to Mr. Gopal, hotels in Suriname are very interested in buying more local foods once the quality is good.

Mr. Gopal maintains face-to-face contact with most of his clients. Orders are usually communicated via phone calls on a weekly basis, and most sales are based on verbal agreement as opposed to a written contract. The only exceptions being KFC and Pizza Hut, both of which maintain formal contractual arrangements with the company that are renewed on a periodic basis. Both of these businesses have established food safety standards that involve recurrent inspection of the farm and its facilities. In fact, Mr. Gopal will have to make a number of changes to his property in order to maintain these contracts. Part of the agreement will involve the construction of an additional twelve greenhouses on the property where all the fresh produce (primarily lettuces and sweet peppers) supplied to KFC and Pizza Hut will be grown.

To ensure that his products are of the highest quality, Mr. Gopal sets his own standards for how his products should be handled prior to, during and immediately after delivery. For example, highly perishable items, such as lettuce, sweet peppers and tomatoes, used to be delivered and handed over at storage. Now, these produce are packaged and delivered directly to the kitchen staff where they are immediately placed in a cold room or refrigerator. With this arrangement, produce moves directly from trucks to cold storage upon delivery. This helps to maintain the product quality. The company also tests the temperature of products on site before they are handed over to the buyer. This serves as another form of quality control mechanism for the company as it ensures produce are handed over at the right temperature and under the right conditions.

### **Product Differentiation**

It is quite evident that *GOPEX International* enjoys competitive advantages that set it apart from most of its competitors. The company's pursuit of the different food safety standard certifications is probably the most evident advantage. *GOPEX International*, as previously stated, is the first and only agriculture company in Suriname to have attained ISO and HACCP certifications and is now positioning itself to attain the Global Gap certification. These certifications can potentially play a key role in enhancing the company's value proposition within the domestic market.

Another distinguishing feature of the company relates to the traceability of its products. At present, Mr. Gopal does not procure on the open market. The company maintains a fairly controlled and close-knit supply chain where products are traceable. Aside from the fact that the majority of the company's fresh produce is grown on its own farm, the company only uses a limited number of out-growers to meet its shortfall. The company also keeps a detailed record of its procurement schedule as well as every delivery made.

Another spin-off benefit from maintaining such a controlled supply chain is the company's ability to guarantee its consumers a shorter turn-around time compared to its competitors. The company can also offer a more consistent price for its products year-round by maintaining such a strong hold over its supply chain. It is important to note that the products offered by *GOPEX International* are not necessarily the cheapest, but the company has been able to do extremely well by maintaining a high food quality standard.

Another key advantage relates to the fact that Mr. Gopal has contracted a company that does accounting for his business since 2010. While this is largely a requirement of his lending institution, Mr. Gopal sees this as a huge benefit for his company as it allows him to track its progress. The company pays a yearly fee for the service, and in turn receives reports on a monthly, quarterly and annual basis.

## Areas for Improvement

Most of the anticipated improvements for the company are tied to its application for Global GAP certification. These will include, but are not limited to, the construction of extra storage for pesticides, a canteen and nearby restrooms for workers. Mr. Gopal has also expressed a strong interest in exploring alternative forms of energy for his farm. The idea of using solar energy to operate an on-farm irrigation system is currently being explored.

As mentioned before, the company is looking into shifting more of its production into greenhouse cultivation. This will result in the farm having a total of sixteen greenhouses equipped with worktables, irrigation, mist systems and shading cloth.

## Major Risks and Threats

*GOPEX International* has made a number of investments in recent years aimed at improving its market position in Suriname. Though promising, these investments also present a risk to the business. Since most food distribution companies and exporters in Suriname have no form of food safety certification, the investments made should place the company in a very advantageous position in the future. However, the real benefits of these investments will not materialize right away; and in the case of the Global GAP certification, there will need to be a tremendous amount of investment in infrastructure for the certification to be granted.

Investments like these require long term and strategic thinking among entrepreneurs. In the case of *GOPEX International*, Mr. Gopal sees these certifications as an investment for the future sustainability of the business.

Access to financial services is a major challenge in doing business within the agriculture sector in Suriname. Mention was made of the prohibitively high interest rates (averaging around 17 percent) affixed to loan repayment. Even though Mr. Gopal has accessed loans, he pointed out that loan repayment has been burdensome and restrictive at times. This problem can certainly serve as a barrier to long term investment and innovation in the sector.

Labor market deficiencies also pose a challenge to the sector. Mr. Gopal mentioned that there is a general shortage of labor/human capital in Suriname owing to its small size. He also pointed out that it is difficult to find good farm workers in Suriname owing to the limited interest people have in working in the agriculture sector. This was one of the primary reasons why he opted to hire migrant workers. In fact, he is planning on importing more laborers from the Philippines to work on his farm as he finds them to be very efficient and easier to work with compared to local farm workers.

In response to his plans to supply a greater share of the tourism industry in Suriname, Mr. Gopal mentioned the importance of working with good out-growers. This presents a significant risk in itself, as the quality and efficiency of out-growers will determine the company's ability to meet the high and demanding food quota and food safety standards of hotels operating in Suriname.

## 2.5.2 Green Leaves

### History and Background

*Green Leaves* is a small agribusiness firm that grows and supplies a wide range of fresh lettuces and herbs to several restaurants and hotels in Paramaribo. The firm is owned by Mr. Dew Jakharia, a Surinamese who returned to the country in 2000, after residing for more than ten years in Holland.

Mr. Jakharia, after returning to Suriname, soon got involved in farming as a means of earning an income. He started growing parsley for the export market, but that venture failed. He then started to sell his local produce at the market. His decision to go into the production of specialized herbs and spices was influenced by a chef he met in the market who asked for herbs that were not grown locally. He later started producing a limited amount of these herbs on a small scale, and supplied these to a number of restaurants. He had to import seeds from Holland in order to start this venture, which later became *Green Leaves*.

Today, the company produces a wider range of herbs as well as lettuce, tomato, sweet pepper and Japanese cucumber that are supplied mostly to hotels and restaurants located in Paramaribo. Some of the herbs grown include oregano, at least two varieties of parsley and basil, several different varieties of thyme and rosemary. A smaller portion of the produce is also supplied to high-end supermarkets that are frequented by expatriates working in Suriname. The company currently supplies between five to six restaurants and two hotels on a regular basis.



Figure 62: Sample of produce being prepared for the market at *Green Leaves*

The company employs three persons on a permanent basis to assist in the planting process as well as in the cleaning and packaging of the products after they have been harvested. The company has three greenhouses, one of which was set up from funds received from the Ministry of Agriculture in 2013 under a FAO funded project.



Figure 63: Side view of one of the shade houses being used to grow lettuces at *Green Leaves*



Figure 64: Patches of lettuce being grown in plastic tubes at *Green Leaves*

## Marketing

The company has no formal contractual arrangement with buyers. Instead, orders are usually placed over the phone and deliveries made three times per week. Clients are called in the morning for orders, and the deliveries are usually done in the afternoons. The arrangement seems to be working well as payments are usually made in cash upon delivery or by the end of the month once an invoice is submitted. Also, since there is no binding agreement, the company cannot be held liable if it is unable to meet the quota in any given instance. According to Mr. Jakharia, it is better to have less than what is demanded by the market, because if sales are slow, the uncommon nature of the farm's produce does not encourage rapid uptake of the excess in the local markets.

The only major challenge affecting the company is related to the tourism season. The tourism season in Suriname extends from July through to September each year. After September, tourist numbers taper off and pick up again by late June.

During the peak season, when demand exceeds supply, Mr. Jakharia supplies only what his capacity allows him to. The peak of the tourism season also coincides with the dry season, which presents a major challenge to most local producers who lack irrigation on their farms. During this season, most hotels make do with whatever produce can be sourced locally. This situation does

not lead to importation, however, as herbs are very difficult to import given that the volumes needed at any given time are usually not that large and, furthermore, herbs are easy to spoil. Within this context, local herb farmers have a huge advantage.

### **Product Differentiation and Value Proposition**

One of the main strengths of the business is the exotic nature of the products that are grown. A large amount of the produce grown are very difficult to source inside Suriname, and this gives the company a significant competitive edge.

Mr. Jakharia does not need a lot of space to farm on; in fact, he currently only uses around 500 square meters of land to farm. This allows for great care to be given to the management of the farm. Crops are grown in an extremely controlled environment and are constantly monitored by the farm workers.



Figure 65: Mr. Jakharia demonstrating how the hydroponics technology works

The owner strives to develop and maintain good relationships with people in the tourism and food service industries and, as a result, the company hardly ever loses any of its clients. In fact, Mr. Jakharia frequently seeks new clients for his company.

### **Major Threats and Challenges**

Even though *Green Leaves* has been in operation for well over ten years, doing business in Suriname is not easy, especially for such a small enterprise. The main challenges include the threats posed by flooding, pests and diseases, and limitations in accessing funding and technical support.

#### *Flooding*

Mr. Jakharia indicated that floods pose a major and constant threat to his company. The main rainy season in Suriname extends from the end of April through to the middle of August. Given how flat the area is, it is very easy for flooding to occur. In fact, the area has a long history of flooding and was once used to cultivate lowland rice. There are also a number of swamps located in the area, and their presence indicates that the water table is close to the surface. The predominantly clayey soil also makes farming difficult.



Figure 66: Flood trenches constructed at *Green Leaves* to manage floodwaters

In terms of a mitigation plan, Mr. Jakharia indicated that he is currently seeking some support to invest in a pumping system that can pump off excess water during a flood event. He pointed out that in recent years he has had to raise his planting beds to avoid losing crops to flooding.

### *Pest and Diseases*

Infestation from pests and diseases also pose a problem to the business. Most of the herbs that are grown are very sensitive to humidity and temperature changes. Additionally, fungal infection can be very prevalent among herbal plants, lettuce and other leafy vegetables if great care is not taken in the planting process.

### *Funding*

Sourcing funds is another major problem. Commercial banks hardly provide funding for farming, and even in instances where funding becomes available, the interest rates are extremely high. This makes it very difficult for small agricultural businesses like *Green Leaves* to expand their operations. This has been the experience of Mr. Jakharia, who is interested in scaling up his operations, but has found it very difficult to source the funds needed to acquire additional greenhouses for the farm.

### *Infrastructural limitations*

Mr. Jakharia wishes to improve his business primarily by making infrastructural changes. The farm is in need of an irrigation system that would allow for a better and more efficient distribution of water to the plants. Increasing the number of greenhouses, combined with irrigation, would also allow Mr. Jakharia to better plan his crop cycle. At present, he stores his herbs in a small refrigerator, which can accommodate only small quantities at a time. The construction of a cold room would assist him greatly in scaling up his operations and reducing post-harvest loss. With the right infrastructure in place, Mr. Jakharia is of the belief that he could deliver his products year-round to his clients.

Another major challenge for the business is related to market inconsistencies. During the low season for instance, Mr. Jakharia supplies a greater portion of his products to supermarkets rather than to hotels and restaurants. These supermarkets only pay retroactively for the goods that are sold and oftentimes return the unsold portion to him. In most instances, the returned portion has to be thrown away due to spoilage. The lack of a proper post-harvest or cold storage facility on Mr. Jakharia's property, puts him in a very disadvantageous position. In the short term, he is thinking of drying some of the fresh herbs ahead of the start of the low tourism season, in

order to package and supply them to supermarkets in and around Paramaribo. This is intended to increase the shelf life of the products.

#### *Lack of certification*

Another area of weakness is related to the firm's lack of certification. As seen in the case of *GOPEX International NV*, food safety standards and certifications can enhance a company's presence in the market. Both *Torrarica* and the KFC/Pizza Hut franchise in Suriname have standards and require that their suppliers are certified. KFC and Pizza Hut have recently terminated their contract with *Green Leaves* and are now getting their supply of fresh lettuce, tomato and herbs from *GOPEX International NV*.

Mr. Jakharia has a clear interest in getting his farm certified in the near future. However, he is in need of technical assistance, especially with regards to the provision of information and technical guidance for putting the required systems in place. To obtain certification, such as Global GAP, Mr. Jakharia will also require a great deal of financial capital and expertise that are usually out of the reach of small agribusinesses.

### 3. ANALYSIS OF CASE STUDIES AND RECOMMENDATIONS

#### Introduction

The case studies presented in this report highlight the potential for developing and strengthening the links between agriculture and tourism in the Caribbean. While there are many challenges in increasing inter-sectoral market linkages between agriculture and tourism, this study highlights a few cases throughout the region of farmers and agribusiness firms who have successfully forged viable trade linkages and partnerships with the tourism industry. As such, the documentation and analysis of these successful Caribbean experiences provide valuable insights on the key drivers of success as well as some of the main challenges and limitations that must be addressed in order to ensure the development of greater synergies between the two industries.

The main purpose of this section is to provide an overview of the key findings and lessons learned from a review of the case studies conducted. The section also outlines some of the main recommendations emanating from the findings of the study.

#### Key Findings and Lessons Learned

##### *Key drivers of success*

Analysis of the case studies reveals several distinct drivers of success. These include:

- **Adherence to quality standards and certification:** A number of the businesses examined have managed to differentiate themselves from their competitors through the adoption of a number of quality standards and certification. These certifications can play a major role in expanding and maintaining a company's market share and differentiating its products from those of its competitors.

This was very evident in Suriname where the owners of the KFC and Pizza Hut franchise have recently severed their longstanding business relationship with *Green Leaves* in favor of establishing a new contract with GOPEX International to supply a range of vegetables and herbs under its HACCP and ISO certified line of agricultural products. This is a clear example of how food-safety certifications can be used to enhance a firm's value proposition and marketing competitiveness. Tied to this, is the growing requirement from local and international customers for increased transparency and information about the food they consume. This certainly has implications for the region's tourism sector, since the sector is also subject to increasing regulatory demands for food safety information and effective trace-back systems.

- **Maintaining strong market visibility and proactive promotion of products:** A number of the businesses studied utilized a wide range of strategies aimed at promoting their products and increasing their visibility in their local markets. The use of social media, participation at trade shows are just a few of the strategies observed. Added to this, is the significant role branding and labeling seem to play in adding value to existing products, while expanding reach in existing markets and/or maintaining market share.
- **Forging strategic business alliances:** It was quite common to see businesses building and maintaining strong and innovative partnerships with other actors and agencies in their respective supply chains. These partnerships seem to play a significant role in enhancing market competitiveness, especially for small firms or producers who on their own would find it difficult to compete. These partnerships are not limited to private sector entities only, as the case studies provided a number of examples of effective partnerships being forged with public sector agencies, as well as with civil society groups and international development organizations such as the Inter-American Institute for Cooperation on Agriculture (IICA) or the Food and Agriculture Organization (FAO).
- **Maintaining a high and consistent product quality:** One of the distinguishing features seen in most of the case studies is the tremendous emphasis placed on product quality. Maintaining a high quality standard for products can be seen as quintessential to the success of most of the business models examined in this report. This was evident in the high premium placed on gaining food certifications, such as HACCP and ISO, or delivering the freshest and best-looking products to the market in the most efficient and effective manner. Integral to this, is the guarantee given to customers of a consistent and timely supply of high quality products. A few of the cases (for example, *Woodford Market Garden* – Jamaica) went as far as to provide their clients with details and guidelines on how best to preserve and prepare their products.
- **Maintaining strong ties with clientele/trading partners:** Another trait that is evident throughout most of the case studies is the strong bond that exists with the businesses and their various market clients and trading partners. It was reported in a number of instances, that it is extremely crucial for agribusinesses to nurture and maintain constant communication with their client base. Throughout the cases studied, this was done by maintaining regular face-to-face contact with clients, organizing site visits, and occasionally staging tasting of new and existing products.
- **Keeping abreast with market trends:** Another key and defining feature observed with a number of the business models is their capacity to adapt to, and keep abreast of changes and trends in the local market. This can be seen in the case of *Jaune D'or Eggs* (Haiti) where the company's employees attended trainings and consultations in order to keep

current with issues in the industry. This is also evident in the way some of the businesses have taken advantage of the opportunities afforded by new media, particularly social media, to promote their products and services.

- **Effective supply chain management and value addition:** Most of the businesses reported on, emphasized the importance of maintaining a strong supply chain. A number of the companies are involved in the production, sorting/grading, packaging and distribution of their own products. (See, for example, *Jardins Hydroponiques* in Haiti or *Jamaica Standard Products Limited* in Jamaica). Equally important is the production of value-added products that can provide an additional stream of income to the company as seen in the case of *Belmont Estate* (Grenada), *Island Sweet Pineapple Farm* (St. Lucia), and *Woodford Market Garden* (Jamaica).

### *Lessons learned*

The key messages and lessons learned, include:

- In the majority of cases, agribusinesses cannot rely on the tourism sector solely. The main reason being the seasonal nature of the tourism industry throughout the region. As such, agribusinesses and farmers alike, have to secure other markets for their produce.
- Local producers and agrofood production systems are increasingly being subjected to global food safety and quality standards and regulations.
- While there are many similarities among the various the case studies, there are also unique differences that must be noted. For instance, in the case of Suriname, there are many opportunities for linking agriculture with tourism given how difficult and expensive it is for hoteliers and other agents in the tourism food service sector to source imported foods. This is not necessarily the case in a country like Jamaica that has a more established and entrenched food import regime. In the latter case, it is far more difficult for local producers to compete in their own market, as imported foods are usually priced lower and extensively distributed by a wide network of traders.
- Scale is not a determining factor for success. The case studies presented in this report strongly proved this. Food quality and safety, consistency, product differentiation, marketing, and maintaining strong ties with one's clientele are much more important in determining a business' success as opposed to the size/scale of its operation.
- There are several threats affecting the agriculture sector that have clear implications for the development and sustenance of agritourism ventures throughout the Caribbean. For

instance, the lack of financial assistance, especially for small agribusinesses, seems to be a common issue throughout the region. Several of the participants in the study pointed out how difficult it was for small agricultural enterprises to access loans in their respective countries. This can certainly inhibit long-term investment and innovation in the sector. Of equal concern, are the threats posed to the agriculture sector from natural hazards such as hurricanes, floods and droughts. Amidst recent projections of a changing regional climate regime, greater attention must be paid to the risks associated with climate variability and change.

## Recommendations

While the case studies reported in this study generally represent some impressive examples of how some regional agribusinesses have managed to forge viable linkages with the tourism industry, we are also cognizant of the fact that these businesses are by no means perfect. Indeed, the study highlighted several areas that require greater attention by regional policy makers and agribusiness operators. These include: (i) limited access to funding, especially from the private sector; (ii) issues surrounding hygiene, food safety and quality standards; (iii) the seasonal nature of the tourism industry that sometimes leads to a mismatch in supply and demand; (iv) absence of a regional and national legislative/policy platform to support agritourism initiatives; (v) high production costs; and (vi) threats posed to the agriculture sector from a range of natural hazards.

To address some of these issues, the following measures are recommended:

### *(a) Improved micro-financing models for farmer-owned enterprises*

There is a clear need to promote and develop appropriate and effective financing mechanisms or models suited for the Caribbean, that could strengthen and further enhance the capacity of local producers and agribusinesses to adequately meet tourism industry food quota, quality, consistency and safety requirements. While the precise nature and setup of these models fall outside the scope of this study, it is strongly recommended that further studies be carried out to determine suitable options for financing the activities of farmer-owned enterprises in the region. There are already a few examples of micro-financing and social enterprise development schemes that have been set up in the Caribbean; two of which are outlined here:

Programme	Territory	Description
Rural Economic Development Initiative (REDI)	Jamaica	The initiative is slated to run until July 2016 and is being implemented by the Jamaica Social Investment Fund (JSIF), with funding support from the World Bank. This project is aimed at improving market

		<p>access for micro and small-scale rural agricultural producers and tourism product and service providers.</p> <p>The initiative finances two types of rural sub-projects: Type A sub-projects support revenue generating activities in agriculture and tourism, and Type B sub-projects support provision of critical infrastructure, marketing, and management in the rural agriculture and tourism sectors. The project is also geared towards providing funding support for technical assistance (TA) and capacity building for key organizations and agencies that deliver support services in agriculture and rural tourism at the local level. Funds for rural sub-projects are only provided to community based organizations that are required to provide counter-funding equivalent to 10% of the overall subproject grant.</p>
St. Lucia Market Access Initiative (MAI)	St. Lucia	<p>In 2003, Oxfam GB launched an initiative in St. Lucia primarily aimed at increasing the sales of fresh fruits and vegetables to hotels through advocacy, micro-financing, strengthening farmers' organizations and creating a social enterprise business model that would be partly owned by farmers in partnership with both public and private sector interests.</p> <p>A key component of the MAI was the establishment of a buffer fund that could ease the cash flow challenges generally experienced by local small-scale producers and farmer-owned enterprises. The Fund was set up with seed funding from Oxfam GB and was monitored by a Business Review Committee comprising representatives from the public and private sector. The buffer fund was setup to operate like a revolving loan facility managed by the St. Lucia Credit Union League, where loans would be used to purchase agricultural produce from group members for sale to hotels, restaurants and supermarkets at a mark-up (typically 40% of sales). From the sale proceeds, the MAI would pay back the loan taken along with the accrued interest, but keep the profit.</p>

*(b) Building technical capacity of farmers in meeting food safety and quality standards*

Given recent trends in global consumption habits and growing consumer demand for safer, equitable and sustainable food sources, the ability of regional farmers to forge viable linkages with buyers in the tourism industry will be contingent on them meeting and complying with increasingly strict hygiene, food safety and quality standards. Given how technical some of these certifications are, assistance will certainly be needed at the institutional and farm levels to make regional farmers compliant with these requirements. This could include market sensitization workshops, training in record keeping and food handling. Added to this are the numerous opportunities for niche marketing and value addition through initiatives such as organic or eco-labeling and fair trade to name some. Again, while elements of these can be seen in existing programs throughout the region, there is certainly a case for scaling up these initiatives and tailoring them to meet the needs of targeted markets, such as tourism.

*(c) Promotion of alternative forms of tourism*

As mentioned before, the seasonal nature of tourism seen in most Caribbean states presents a major challenge for the agriculture sector. Essentially, the demand for local produce, especially from hotels, usually falls significantly during the offseason. One way regional states can tackle this issue is to diversify their tourism products. Presently, mass tourism (primarily involving large all-inclusive resorts and cruise tourism) is the dominant form of tourism in the region. Usually, the bulk of tourists come from one or two source regions (mainly North America and Western Europe). The promotion of alternative forms of tourism such as ecotourism, heritage tourism and even health tourism, could increase the demand for locally sourced foods for the sector, as well as attract visitors from other source regions (including the Caribbean itself), who may be more inclined to visit during the traditional offseason. Also, as seen with a few of the case studies (see, for example, case reports for *Belmont Estate, Grenada*, and *Island Sweet Pineapple Farm, St. Lucia*), farm-based attractions can provide a lucrative source of income and employment for rural farming communities throughout the region.

*(d) Engendering an enabling environment through policy and programmatic intervention*

In the majority of cases, there have been few deliberate and sustained attempts by regional governments to formulate policies or programs aimed at promoting greater synergies between tourism and agriculture in the Caribbean. As such, there is a clear need to develop new policies that provide incentives for buyers in the tourism industry to purchase more local foods. A common challenge to increasing inter-sectoral trade linkages between the two sectors is usually the mismatch between supply and demand and the lack of intermediary support structures that enable buyers and suppliers to come together. The establishment of the Tourism Linkages Hub in Jamaica, an initiative of the Ministry of Tourism and Entertainment, provides one of the few examples in the region where government is playing an active role in aligning the two sectors with each other (Ministry of Tourism and Entertainment, 2015). The initiative is aimed at

positioning and assisting the tourism sector to increase its demand for and consumption of goods and services that can be competitively sourced in Jamaica, while strengthening the linkages between the industry and other sectors, such as manufacturing, agriculture and the creative industries. One of the highlights of the Linkages Hub initiative is the monthly staging of the 'Agro-Tourism Farmers Market' in the resort area of Negril. The Agro-Tourism Farmers Market provides a great opportunity to expose tourists to a range of fresh and processed local agricultural produce that could potentially serve as a major economic boost for local farmers and manufacturers.

At the regional level, there is space for a number of initiatives that could stimulate more trade within the region. For instance, transportation seems to be a major hindrance to intra-regional trade, and it reduces opportunities for hotels to source foods from within the region. In the case of Trinidad, for example, there is tremendous potential for trading with Suriname given the close proximity of these two countries. In fact, trade ties between Suriname and the rest of the Caribbean are generally weak. Another potential idea is the creation of a label that recognizes and distinguishes hotels and restaurants, which actively engage and sustain links with local farmers. (This was recommended at the recent Agribusiness Workshop held in Grenada in November, 2014, hosted by the CTA in collaboration with IICA). This label would be similar in principle to a Fairtrade Certification. The responsibility to develop and monitor the label could rest with a regional institution, such as CARICOM.

*(e) Promotion of climate smart agriculture and disaster risk management practices*

The threats posed to the agriculture sector by natural hazards such as droughts, hurricanes and floods, can also significantly impede local attempts at sustaining linkages with the tourism sector. Current climate change projections for the Caribbean generally indicate a warmer and drier future regional climate regime, which may affect the frequency and magnitude of extreme weather events such as hurricanes and droughts across the Caribbean basin. Given these projections, the promotion of climate smart agriculture practices and agriculture disaster risk management initiatives can play a tremendous role in safeguarding the sector against future climate-induced threats.

## Annex A: Interview Instrument

THEMES	LEAD QUESTIONS	NOTES
<b>Business Profile</b>	What is your ownership structure?	Family owned; /Farmer's group, Co-op; /Company owned; /Individually owned
	What are the top 5 most important activities in executing your company's value proposition and goods/service offer?	
	What is the mission of your business?	Mission statements, goal and objectives, purpose for doing the business?
	In what ways have you diversified the products/ services offered?	
	What are the resources that are necessary to create value for your customers?	These are considered an asset to a company, and are needed in order to sustain and support the business. These resources could be human, financial, physical and intellectual.
	What do you consider to be the key selling point(s) or strengths of your business? In other words, what separates you from your competitors?	Example of drivers of success, examples of product differentiation etc.
	What area(s) of the business you think could be improved (weaknesses)?	
	What opportunity do you see for diversifying/expanding this business/attraction?	
	What challenges do you see with replicating and/or scaling up this business?	
	What do you consider your greatest external risk(s) in operating this business?	For example, natural hazards, inflation, changes in markets and consumer demand, etc.

<b>Markets</b>	Who are your main business partners (local / international)?	These could be banks or other financial institutions, local farmers and co-operatives, supermarkets, hotels, exporters, other companies, etc.
	How do you market your different products/services?	
	Who is your main customer base?	For example, hotels, supermarkets, other local markets, export, etc.
<b>Tourism Market Penetration</b>	Describe your relationship with the tourism industry?	
	What are the main benefits in tapping into the tourism market?	
	What are the biggest challenges in maintaining a presence in the tourism market?	
	What do you consider your greatest risk to be, in supplying goods to the tourism industry?	
<b>Finance</b>	How do you finance your operations?	
	Do you have problems accessing funding?	For example, loans, grants, etc.
	What are the various tactics that you employ to recover from losses you may have incurred during the financial year?	
	Please outline the cost structure for your business	
<b>Next Steps</b>	Do you have any plans in place for your business?	

	Where do you see this business five years from now?	

## Annex B: List of Interviewees

<b>Interviewee</b>	<b>Name of Business</b>	<b>Country</b>
Shadel Nyack Compton	Belmont Estate	Grenada
Cécile La Grenade	De la Grenade	Grenada
Pierre Francois Benoit	Jardins Hydroponiques d’Haiti	Haiti
Henry Chatelain	Jaune D’or Eggs	Haiti
Donna Noble	Woodford Market Garden	Jamaica
John Minott	Jamaica Standard Products	Jamaica
Compton Francois	Island Sweet Pineapple Farm	Saint Lucia
Paul Clifford	Zion Lion Farm	Saint Lucia
Dunstan Demille	Consolidated Foods Limited	Saint Lucia
Bhiesnoepersad Gopal	GOPEX International NV	Suriname
Dew Jakharia	Green Leaves	Suriname

## Annex C: Customized Version of the Osterwalder Business Model Canvas Used

<b>CASE STUDY: Belmont Estate (Grenada)</b>			
<p><b>KEY PARTNERS</b></p> <ul style="list-style-type: none"> <li>- Marketing and National Importing Board (NMIB)</li> <li>- Grenada Goat Dairy</li> <li>- The Arts and Craft Co-operative</li> <li>- The Grenada Chocolate Company</li> <li>- The St. Patrick's Eco-Conservation Tourism Organization (SPECTO)</li> </ul>	<p><b>KEY ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>- Plantation tour</li> <li>- The 'tree to bar' cocoa tour</li> <li>- Restaurant and Bon-Bon Shop</li> <li>- Craft Shop</li> </ul>	<p><b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b></p> <ul style="list-style-type: none"> <li>- Eco-friendly and fair-trade certified</li> <li>- Restaurant offering traditional cuisine</li> <li>- In-situ farm experience offered through tours</li> <li>- Product tasting offered through the tours</li> <li>- Recognition for sustainable efforts</li> </ul>	<p><b>CUSTOMER SEGMENTS</b></p> <ul style="list-style-type: none"> <li>- Tour Companies</li> <li>- Farmers</li> <li>- Supermarkets</li> <li>- Small agricultural exporters</li> <li>- Hotels</li> </ul> <p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Media adverts (radio, newspaper)</li> <li>- Brochures and flyers</li> <li>- Social media</li> <li>- The estate's website</li> <li>- Trade shows and exhibitions</li> <li>- Word of mouth</li> </ul>
<p><b>COST STRUCTURE</b></p> <ul style="list-style-type: none"> <li>- Water and Electricity (A climate change grant was submitted in a bid to acquire funds to get the processing operating on solar)</li> <li>- Animal feed (Goat dairy)</li> <li>- Salary for staff</li> <li>- Equipment maintenance (vehicles and processing facility)</li> <li>- Restaurant inputs (food, fuel, and miscellaneous items)</li> </ul>		<p><b>THREATS AND CHALLENGES</b></p> <ul style="list-style-type: none"> <li>- Maintaining authenticity</li> <li>- Changes in customer tastes</li> <li>- As it relates to scaling up, the primary challenge includes access to additional financing</li> <li>- Access to expert human personnel</li> <li>- The greatest external risk is the incidence of natural disasters and the outbreak of pests and diseases</li> </ul>	

**CASE STUDY: De La Grenade (Grenada)**

<p><b>KEY PARTNERS</b></p> <ul style="list-style-type: none"> <li>- Leeward Islands Air Travel (LIAT)</li> <li>- The Ministry of Foreign Affairs</li> <li>- Grenada Co-operative Nutmeg Association (GCNA)</li> <li>- Local farmers</li> </ul>	<p><b>KEY ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>- Production and packaging of products</li> <li>- Sampling and sale of products on site</li> <li>- Tour of nutmeg gardens</li> </ul>	<p><b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b></p> <ul style="list-style-type: none"> <li>- Exquisite packaging</li> <li>- No artificial flavors used</li> <li>- Recognition for quality (<i>The Grenada Independence Award; Grand Gold Medal from Monde Selection</i>)</li> <li>- On site shopping and sampling</li> </ul>	<p><b>CUSTOMER SEGMENTS</b></p> <ul style="list-style-type: none"> <li>- Hotels</li> <li>- Vendors</li> <li>- Airline caterers</li> <li>- Supermarkets</li> <li>- Duty-free shops</li> </ul>
<p><b>COST STRUCTURE</b></p> <ul style="list-style-type: none"> <li>- Utilities (Electricity and Water)</li> <li>- Transportation of Goods</li> <li>- Vehicle and Machinery maintenance</li> <li>- Salary for workers</li> <li>- Packaging (materials, printing and assembly)</li> <li>- Advertising costs (brochures and advertisements)</li> </ul> <p><b>REVENUE STREAM</b></p> <ul style="list-style-type: none"> <li>- Sale of products</li> </ul>	<p><b>KEY RESOURCES</b></p> <ul style="list-style-type: none"> <li>- Processing facility</li> <li>- Nutmeg Garden</li> </ul>		<p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Brochures</li> <li>- Visitor channels</li> <li>- Billboards</li> <li>- Tour companies</li> <li>- Websites</li> <li>- Sporadic TV ads (during carnival and Christmas seasons)</li> </ul>
		<p><b>THREATS AND CHALLENGES</b></p> <ul style="list-style-type: none"> <li>- Impacts of hurricanes</li> <li>- Disease outbreaks in the island may halt tourist arrivals. For example, the chickungunya affected many islands in the region.</li> <li>- lack of expertise in food science</li> <li>- Competition from other less authentic brands</li> <li>- High costs of fuel and packaging</li> </ul>	

**CASE STUDY: Jaune D'or Eggs (Haiti)**

<p><b>KEY PARTNERS</b></p> <ul style="list-style-type: none"> <li>- IICA</li> </ul>	<p><b>KEY ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>- Production, packaging and distribution of eggs.</li> </ul>	<p><b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b></p> <ul style="list-style-type: none"> <li>- Started as the sole egg producer in Haiti; helped to establish the brand's popularity</li> <li>- Works with consultant veterinarians to ensure health of chicks</li> <li>- Attends trainings and consultations to keep abreast of issues in the industry</li> </ul>	<p><b>CUSTOMER SEGMENTS</b></p> <ul style="list-style-type: none"> <li>- Major supermarkets</li> <li>- Major bakeries</li> <li>- Major beach front hotels</li> <li>- Large hotels</li> </ul>
<p><b>COST STRUCTURE</b></p> <ul style="list-style-type: none"> <li>- Purchasing of Feed for layers</li> <li>- Salary for employees</li> <li>- Transportation costs</li> <li>- Cost for utilities (bio digesters have been introduced to generate fuel)</li> </ul> <p><b>REVENUE STREAM</b></p> <ul style="list-style-type: none"> <li>- Sale of Eggs</li> </ul>	<p><b>KEY RESOURCES</b></p> <ul style="list-style-type: none"> <li>- 14 employees</li> <li>- 36,000 layer chickens</li> <li>- Truck</li> <li>- Large farm</li> </ul>		<p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Initially a monopoly on the market; self-advertised</li> <li>- Word of mouth</li> </ul>
			<p><b>THREATS AND CHALLENGES</b></p> <ul style="list-style-type: none"> <li>- Periodic disease outbreaks</li> <li>- Feed Acquisition</li> <li>- Competition from external companies (Jamaica Broilers and the Dominican Republic)</li> <li>- Procurement of additional financing</li> <li>- Lack of expertise in animal production amongst employees</li> </ul>

**CASE STUDY: Jardins Hydroponiques d' Haiti (Haiti)**

<b>KEY PARTNERS</b>	<b>KEY ACTIVITIES</b>	<b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b>	<b>CUSTOMER SEGMENTS</b>
	<b>KEY RESOURCES</b>		<b>MARKETING STRATEGIES/ CHANNELS</b>
<b>COST STRUCTURE</b>		<b>THREATS AND CHALLENGES</b>	
<b>REVENUE STREAM</b>			

**KEY ACTIVITIES**

- Production, packaging and distribution of vegetables (*lettuce, basil*)

**KEY RESOURCES**

- 12 employees
- Greenhouse and roof (crop production)
- Truck
- Hydroponics system

**VALUE PROPOSITION/  
PRODUCT DIFFERENTIATION**

- Only hydroponically operated company in Haiti
- High reliance on technology
- Expertise in quality control
- Value added products (*lettuce in vinaigrette and pesto*)

**CUSTOMER SEGMENTS**

- Hotels
- Supermarkets
- Restaurants
- Local market

**MARKETING STRATEGIES/  
CHANNELS**

- Self-Advertised; renowned for high quality produce
- Word of mouth

**COST STRUCTURE**

- Salary for workers
- Electricity costs
- Transportation and maintenance costs
- Packaging materials and expenses
- Cost of solutions and nutrients for the hydroponics system (efforts are made to recycle the solutions)

**REVENUE STREAM**

- Sale from produce
- Plans to offer hydroponics to investors and other farmers

**THREATS AND CHALLENGES**

- Ensuring that workers adhere to the specific protocols and details affiliated with hydroponics
- Sporadic hazard events (hail episodes and hurricanes)
- Economic stressors such as taxes on imported goods
- Lack of support from financial institutions
- Increased demands from consumers may result in limited supply

**CASE STUDY: Woodford Market Garden (Jamaica)**

<p><b>KEY PARTNERS</b></p> <ul style="list-style-type: none"> <li>- Jamaica Organic Agriculture Movement (JOAM)</li> <li>- Belcour Products Limited</li> <li>- Canadian International Development Agency (CIDA)</li> </ul>	<p><b>KEY ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>- Grow own produce</li> <li>- Package, label and distribute salad greens</li> </ul>	<p><b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b></p> <ul style="list-style-type: none"> <li>- Organic certification</li> <li>- Unique product that is well packaged</li> </ul>	<p><b>CUSTOMER SEGMENTS</b></p> <ul style="list-style-type: none"> <li>- Hotels</li> <li>- Select restaurants (high-end)</li> <li>- Select supermarkets (high-end)</li> </ul>
	<p><b>KEY RESOURCES</b></p> <ul style="list-style-type: none"> <li>- Store room</li> <li>- 1 vehicle</li> <li>- 2 shade houses (received through a grant)</li> <li>- 8 employees</li> </ul>	<ul style="list-style-type: none"> <li>- Delivered fresh</li> <li>- Traceable products (from farm to fork)</li> </ul>	<p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Owns and maintains website</li> <li>- Face-to-face meetings</li> <li>- Direct demonstrations and host food tasting events</li> <li>- Word of mouth</li> <li>- Participate in agriculture and trade shows. For example, Denbigh Agriculture and Trade Show, which is an annual event.</li> </ul>
<p><b>COST STRUCTURE</b></p> <ul style="list-style-type: none"> <li>- Loan repayment for shade house</li> <li>- Week salary for staff</li> <li>- Monthly water and electricity fees. (Solar heaters have been installed and rainwater captured from the shade houses is being channeled to tanks and used to irrigate crops)</li> </ul>		<p><b>THREATS AND CHALLENGES</b></p> <ul style="list-style-type: none"> <li>- Environmental threats include droughts, hurricanes, bushfires and periodic outbreak of pests and diseases</li> <li>- High cost of inputs</li> <li>- Seasonal fluxes in market demand</li> <li>- Poor quality of road network</li> <li>- Limited state support for organic agriculture</li> </ul>	

<ul style="list-style-type: none"> <li>- Monthly inputs for the farm (include seeds and other planting material)</li> <li>- Vehicle maintenance and fuel</li> <li>- Packaging material (labels, plastic casing, printing costs, etc.)</li> </ul> <p><b>REVENUE STREAM</b></p> <ul style="list-style-type: none"> <li>- Product sales</li> <li>- Planning to start farm tours</li> </ul>	
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**CASE STUDY: Jamaica Standard Products (Jamaica)**

<b>KEY PARTNERS</b>	<b>KEY ACTIVITIES</b>	<b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b>	<b>CUSTOMER SEGMENTS</b>
<ul style="list-style-type: none"> <li>- Coffee Industry Board</li> <li>- Jamaica Coffee Exporters Association</li> <li>- Small agro-processing firms</li> </ul>	<ul style="list-style-type: none"> <li>- Grow own coffee</li> <li>- Purchase Blue Mountain coffee</li> <li>- Pulping, drying, hulling and grading of coffee beans done on farms</li> <li>- Roast, package and label coffee for distribution</li> <li>- Market and distribute coffee and non-coffee products (jam, meat rubs, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>- Quantitative: business is cost effective, and pays keen attention to both price competitiveness and efficiency</li> <li>- Qualitative: the overall customer experience and satisfaction is valued</li> <li>- Tremendous emphasis placed on maintaining the highest standards in terms of product quality and customer satisfaction</li> <li>- ISO and HCAPP certified</li> </ul>	<ul style="list-style-type: none"> <li>- Hotels</li> <li>- Restaurants</li> <li>- Supermarkets</li> <li>- Local coffee companies</li> <li>- Overseas coffee retailers (mostly in Japan)</li> </ul>
	<p><b>KEY RESOURCES</b></p> <ul style="list-style-type: none"> <li>- Two coffee estates totaling approximately 420 acres in size</li> <li>- Factory and manufacturing plant</li> <li>- Several vehicles and trucks used for collection and distribution</li> <li>- Several gift shops</li> <li>- Employ up to 600 employees during the peak season</li> </ul>		<p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Owns and maintains website</li> <li>- Social media presence</li> <li>- Face-to-face meetings</li> <li>- Online stores, such as Amazon</li> <li>- Word-of-mouth</li> <li>- Gift shops located in the country's two international airports and</li> </ul>

			major resort towns - Participation in trade shows
<b>COST STRUCTURE</b>  <ul style="list-style-type: none"> <li>- Salary for staff</li> <li>- Rental for gift shops</li> <li>- Monthly water and electricity fees</li> <li>- Maintenance fees (factory, vehicles, etc.)</li> <li>- Monthly inputs for the farm (include seeds and other planting material)</li> <li>- Cost for importing raw materials for packaging, etc.</li> <li>- Vehicle maintenance and fuel</li> </ul>		<b>THREATS AND CHALLENGES</b>  <ul style="list-style-type: none"> <li>- Environmental threats include droughts, hurricanes, bushfires and periodic outbreak of pests and diseases</li> <li>- High cost of inputs</li> <li>- Market instability (especially global coffee market)</li> <li>- Poor quality of road network</li> <li>- Limited access to grant funding being a large family-owned company</li> </ul>	
<b>REVENUE STREAM</b>  <ul style="list-style-type: none"> <li>- Product sales</li> </ul>			

**CASE STUDY: Island Sweet Pineapple Farm (St. Lucia)**

<p><b>KEY PARTNERS</b></p> <ul style="list-style-type: none"> <li>- Inter-American Institute for Cooperation on Agriculture (IICA)</li> <li>- Ministry of Agriculture</li> <li>- Tainos</li> <li>- St. Lucia Pineapple Co-operative Society Limited</li> </ul>	<p><b>KEY ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>- Grow own produce</li> <li>- Provide farm tours</li> <li>- Provide training (to members of the co-operative)</li> </ul>	<p><b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b></p> <ul style="list-style-type: none"> <li>- Largest pineapple grower in St. Lucia</li> <li>- Unique farm tour</li> <li>- Traceable products (from farm to fork)</li> </ul>	<p><b>CUSTOMER SEGMENTS</b></p> <ul style="list-style-type: none"> <li>- Hotels</li> <li>- St. Lucia Pineapple Co-operative Society Limited</li> <li>- Supermarkets</li> <li>- Members of the public</li> </ul>
	<p><b>KEY RESOURCES</b></p> <ul style="list-style-type: none"> <li>- Irrigation system</li> <li>- Compost processing house</li> <li>- Shade house/ Plant nursery</li> <li>- 6 employees</li> <li>- Pineapple demonstration plot (established with grant funding under the European Union Special Framework of Assistance 2005)</li> </ul>		<p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Word-of-mouth</li> </ul>
<p><b>COST STRUCTURE</b></p> <ul style="list-style-type: none"> <li>- Salary for staff (six full time staff members)</li> </ul>		<p><b>THREATS AND CHALLENGES</b></p> <ul style="list-style-type: none"> <li>- Environmental threats include droughts, storm events and periodic outbreak of pests and diseases (the</li> </ul>	

<ul style="list-style-type: none"> <li>- Monthly inputs for the farm (include seeds and other planting material)</li> </ul>	<p>farm experienced a severe drought in 2014 and trough in 2013)</p> <ul style="list-style-type: none"> <li>- Lack of available capital</li> </ul>
<p><b>REVENUE STREAM</b></p> <ul style="list-style-type: none"> <li>- Product sales</li> <li>- Profits from farm tours</li> </ul>	

**CASE STUDY: Zion Lion Farm (St. Lucia)**

<p><b>KEY PARTNERS</b></p> <ul style="list-style-type: none"> <li>- Inter-American Institute for Cooperation on Agriculture (IICA)</li> <li>- Members of the Rastafarian community</li> <li>- Local crafts people</li> <li>- Fishermen</li> </ul>	<p><b>KEY ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>- Provides a 'Farm to Table Carib Beach Barbeque Feast' farm tour</li> <li>- Grow own produce</li> </ul>	<p><b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b></p> <ul style="list-style-type: none"> <li>- Farm produce is completely organic</li> <li>- All meals prepared for tour participants are done using only ingredients found on the farm</li> <li>- Traceable products (from farm to fork)</li> </ul>	<p><b>CUSTOMER SEGMENTS</b></p> <ul style="list-style-type: none"> <li>- European tourist</li> <li>- Local people</li> </ul>
<p><b>COST STRUCTURE</b></p> <ul style="list-style-type: none"> <li>- Farm maintenance cost             <ul style="list-style-type: none"> <li>* Operational cost on the farm are kept at a minimum as everything is strictly organic. Farm labor is done by the owner with assistance from his family members</li> </ul> </li> </ul> <p><b>REVENUE STREAM</b></p> <ul style="list-style-type: none"> <li>- Profits from farm tours</li> <li>- Personal funds of Sherene Patterson (farm operator)</li> </ul>	<p><b>KEY RESOURCES</b></p> <ul style="list-style-type: none"> <li>- Nearby river (for irrigation)</li> <li>- 1 horse</li> <li>- A mineral bath</li> <li>- The neighboring Pitons</li> <li>- A stone wall constructed with assistance from IICA</li> </ul>	<p><b>THREATS AND CHALLENGES</b></p> <ul style="list-style-type: none"> <li>- Threat of deforestation</li> <li>- Exposure to natural disasters such as droughts and troughs</li> <li>- Gross opposition and competition from other players in the tourism industry</li> </ul>	<p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Word-of-mouth</li> <li>- Travel blogs</li> <li>- Social Media</li> <li>- Tripadvisor.com</li> </ul>

**CASE STUDY: GOPEX International NV (Suriname)**

<p><b>KEY PARTNERS</b></p> <ul style="list-style-type: none"> <li>- Ministry of Agriculture</li> <li>- Inter-American Institute for Cooperation on Agriculture (IICA)</li> </ul>	<p><b>KEY ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>- Grows a variety of herbs and spices including celery, lentils, parsley, chives as well as fruits such as mangoes.</li> <li>- Peel, cut and package assorted fruits and vegetables</li> <li>- Export produce to Holland</li> <li>- Import farm workers</li> </ul>	<p><b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b></p> <ul style="list-style-type: none"> <li>- Traceable products (from farm to fork)</li> <li>- ISO, HCAPP certified</li> </ul>	<p><b>CUSTOMER SEGMENTS</b></p> <ul style="list-style-type: none"> <li>- Hotels and restaurants in Paramaribo</li> <li>- Surinamese living in Holland</li> </ul>
<p><b>COST STRUCTURE</b></p> <ul style="list-style-type: none"> <li>- Salary for staff</li> <li>- Energy and water bill</li> <li>- Maintenance of vehicles and facilities</li> <li>- Outsourcing of accounting services</li> </ul> <p><b>REVENUE STREAM</b></p> <ul style="list-style-type: none"> <li>- Sale from products</li> </ul>	<p><b>KEY RESOURCES</b></p> <ul style="list-style-type: none"> <li>- 75 hectares of farmland</li> <li>- Cold storage</li> <li>- Packaging room</li> <li>- Greenhouses</li> <li>- Irrigation</li> <li>- Access to a nearby river</li> <li>- Directly employs fourteen workers</li> </ul>		<p><b>MARKETING STRATEGIES/ CHANNELS</b></p> <ul style="list-style-type: none"> <li>- Word-of-Mouth</li> <li>- Face-to-face meetings</li> </ul>
		<p><b>THREATS AND CHALLENGES</b></p> <ul style="list-style-type: none"> <li>- Limited access to financing</li> <li>- Shortage of good local laborers</li> </ul>	

**CASE STUDY: Green Leaves (Suriname)**

<b>KEY PARTNERS</b> <ul style="list-style-type: none"> <li>- Ministry of Agriculture</li> <li>- Inter-American Institute for Cooperation on Agriculture (IICA)</li> </ul>	<b>KEY ACTIVITIES</b> <ul style="list-style-type: none"> <li>- Grows a variety of herbs, spices including celery, lentils, parsley, chives as well as leafy vegetables such as lettuce</li> <li>- Utilizes hydroponics</li> </ul>	<b>VALUE PROPOSITION/ PRODUCT DIFFERENTIATION</b> <ul style="list-style-type: none"> <li>- Specializes in the production of exotic herbs and spices</li> </ul>	<b>CUSTOMER SEGMENTS</b> <ul style="list-style-type: none"> <li>- Hotels and restaurants in Paramaribo</li> </ul>
	<b>KEY RESOURCES</b> <ul style="list-style-type: none"> <li>- Shade houses used for hydroponics</li> <li>- Small packaging area</li> <li>- Directly employs three workers</li> </ul>		<b>MARKETING STRATEGIES/ CHANNELS</b> <ul style="list-style-type: none"> <li>- Word-of-mouth</li> <li>- Face-to-face meetings</li> </ul>
<b>COST STRUCTURE</b> <ul style="list-style-type: none"> <li>- Salary for staff</li> <li>- Energy and water bill</li> <li>- Maintenance of vehicles and shade houses</li> </ul>		<b>THREATS AND CHALLENGES</b> <ul style="list-style-type: none"> <li>- Flooding</li> <li>- Pest and diseases</li> <li>- Limited access to funding</li> <li>- Limited infrastructural capacity (no cold storage facility as yet)</li> <li>- Lack of certification</li> </ul>	
<b>REVENUE STREAM</b> <ul style="list-style-type: none"> <li>- Sale from products</li> </ul>			

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