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Sustainable Education and Microfinance Solutions to Food Insecurity in St. Vincent and the Grenadines

Clear, blue water. The sound of waves rhythmically crashing onto the shore. A gentle, consistent breeze. As one steps off a boat or climbs out of a small plane, these are the sights and sounds that await upon arrival in the Caribbean island nation of St. Vincent and the Grenadines. With beautiful island coves and a sea teeming with aquatic life, the tiny country is a premier destination for snorkelers and wealthy tourists. From the outside looking in, St. Vincent and the Grenadines is a pristine tropical location with an indisputable allure. However, these descriptions tell only a part of the story for the people of St. Vincent and the Grenadines. Food insecurity and economic instability are major challenges for Vincentine citizens on a daily basis. These problems emerge because of a lack of effective and sustainable implementation of financial responsibility and business-focused education across the islands. The nation is made of 32 small islands, and nearly 70 percent of the nation's land area is covered in forests ("St Vincent", 2020). According to Elizabeth Thomas-Hope, a professor and researcher at the University of the West Indies, "the greatest challenges to food security in St. Vincent and the Grenadines are felt by the populations below the poverty level, most of whom are rural dwellers" (Thomas-Hope, 2017, p. 47). With a large part of the nation's citizens living in a rural context, food security has become a difficult and complex issue. The Statistical Office in the nation's Ministry of Finance states that the average Vincentine family is made up of 3 individuals, and with this relatively small family size, all family members play a vital role in securing food and other material resources for the home (Families and Households, 2012). Daily living for an average citizen in St. Vincent and the Grenadines is marked with challenges stemming from a relatively high rate of unemployment and poverty. Most citizens work for modest pay in the banana production and tourism industries, with a large majority of adults also engaging in some form of subsistence labor. Meals are typically sourced from whatever foods are most readily available, which often consists of fish, fruit, and nut products produced in the islands (Zane, 2020). In the *Journal of International Migration*, Thomas-Hope states that "food security in St. Vincent is also heavily dependent on purchasing food and, in this regard, migrant remittances play an important role" (Thomas-Hope, 2017, p. 47). Many residents on the islands are forced to migrate due to a lack of small-scale agricultural production to support a readily available food supply. While seasonal migration has become a decades-old strategy for families who seek to acquire basic needs and assets, this perpetuates the problem of food insecurity due to the lack of a long-term, sustainable solution. As the population resorts to migration and deals with challenges associated with rural living, the state of education within St. Vincent and the Grenadines continues to suffer. With a scattered and outdated education system, the issues of poverty and financial hardship become perpetual problems in society.

Food insecurity problems are complicated by ongoing economic and financial instability within St. Vincent and the Grenadines. Over a five-year span, the average net income per capita in St. Vincent and the Grenadines is the equivalent of \$6,580 US Dollars ("St Vincent", 2020). The Gross Domestic Product (GDP) value for the country experienced a decrease of 0.6 percent from 2009-2013, and although it has rebounded some since that time, St. Vincent and the Grenadines was ranked 182 out of 196 for GDP by the globalEDGE calculation from Michigan State University in 2018 (Michigan State University, 2020). In addition, inflation has increased overall by 1.7 percent in recent years ("St Vincent", 2020). These statistics showcase the economic struggles Vincentine citizens face. While the economic situation may be statistically worse in other locations of the globe, the current reality in St. Vincent and the Grenadines offers little hope of economic advancement and societal mobility for its citizens. St. Vincent and the

Grenadines is a member nation of The Commonwealth, a voluntary organization of 54 countries. When describing the Vincentine economy, The Commonwealth describes how St. Vincent's economic struggles are largely due to the fact that "the economic base is very small, and is heavily dependent on agriculture, especially bananas" ("St Vincent", 2020). Agriculture is a rather unpredictable industry, especially in a poorer context with less access to modern agricultural technology, as is the case in St. Vincent and the Grenadines. As inflation rises and the overall capital generated in the islands decreases, citizens struggle to achieve financial self-sustainability. The root cause of financial struggle stems from a lack of comprehensive career focused education, as is described by Ronald Sheasby as he writes for the State University Education Review. He contends that "In order for Saint Vincent and the Grenadines to remain competitive in the emerging sectors of Caribbean economy, retraining is and must continue to be conducted through a well-structured and coherent approach" (Sheasby, 2020). This economic unrest and lack of financial sustainability increases the severity and the urgency of food insecurity, and points to the need for an education-based solution that supports the overall economy of the islands.

To understand the context of the food supply and economic struggles experienced within St. Vincent and the Grenadines, it is essential to examine one of the nation's most important economic sectors: agriculture. Many of the agricultural opportunities available in St. Vincent and the Grenadines are unique because of the tropical Caribbean setting. A primary part of the agriculture on the islands is fruit production, especially bananas. These crops are the primary export of the country and make up most of the 6.3 percent total Vincentine GDP value claimed by the agriculture sector ("St Vincent", 2020). In addition to the fruit production, fisheries offer a second vital component to the agriculture sector. In 2006, a study was done by researchers from the Center for Resource Management and Environmental Studies at the University of the West Indies to develop a socio-economic profile of fisheries in the Grenadines. After surveying 267 fishermen from all major fishing villages on seven Grenadine islands, they found "major issues and vulnerability within Grenadines fisheries, especially the dependency on overexploited species and export markets" (Gill et al, 116). Despite opportunities for production in both the fruit production and fisheries industries, the economic growth is hampered by unsustainable practice and a high amount of exported product. As overall production slowly decreases, producers must export an increased amount of their total production, leaving less for themselves and fellow Vincentine residents. As a result, island residents rely on a predominantly imported food supply, which is both costly and unpredictable. The Vincentine economy suffers from a diminished presence of successful small-business ventures, and this difficult situation is caused by a lack of available education resources that prepare students for the modern economy. Sheasby describes how "in an increasingly technology-and computer-driven twenty-first century, educators throughout the world have needed to rethink their missions" (Sheasby, 2020). While St. Vincent and the Grenadines has been successful in accomplishing educational goals and achieved 96 percent national literacy by the turn of the decade (Sheasby, 2020), there is substantial progress yet to be made on the vocational and technical education fronts.

This problem is compounded by a separate economic sector: tourism and services. The service sector accounts for 74.4 percent of St. Vincent and the Grenadines total GDP, making it by far the largest sector of the Vincentine economy. While the service sector provides necessary revenue and employment, it limits overall agricultural growth. In a study done by researchers Jerome L. McElroy and Klaus de Albuquerque, it was found that "much of the agricultural decline is due to large and persistent sectoral income and wage discrepancies that cause widespread mobility of land and labor from agricultural to tourism and related uses" (McElroy & de Albuquerque, 1990, p. 129). Since the study, tourism services have continued to increase within St. Vincent and the Grenadines, continuing the trend from their original findings. As the different economic sectors compete for available land and human resources, it is clear a more established and sustainable path must be paved to create lasting economic and food security in St.

Vincent and the Grenadines. In addition, the COVID-19 pandemic has caused the tourism sector to experience significant challenges. Currently, the Centers for Disease Control and Prevention considers St. Vincent and the Grenadines to be a “Warning – Level 3” nation, which means all nonessential travel should be avoided (Centers for Disease Control and Prevention, 2020). It is estimated that global tourism may decrease by some 20-30 percent, which puts the vulnerable economy in St. Vincent and the Grenadines at even greater risk for collapse. To decrease competition between sectors and promote consistent and sustainable growth in food supply, thorough and thoughtful education reform must be implemented.

As stated in the International Journal of Inclusive Education, St. Vincent and the Grenadines and “the countries of the Eastern Caribbean have for more than a decade been committed to the implementation of a common educational reform strategy” (Armstrong et al., 2005, p. 87). The educational reform is largely designed to prepare students with career applicable skills to accelerate the economic advancement process and aid in poverty rate reduction and prevention (Ministry of Education, 2015, p. 5). Much of this educational reform strategy is implemented into the current educational structure within the country. According to the 2015 Educational Review for St. Vincent and the Grenadines completed by the Educational Research Department in the National Ministry of Education, the education system has four distinct educational levels of pre-primary, primary, secondary, and post-secondary. There are 68 primary schools and 26 secondary schools in the nation, of which 18 are assisted by the government. 162 teachers in St. Vincent and the Grenadines have college degrees in education (Ministry of Education, 2015, p. 13). These statistics help to show the basic educational system in place within St. Vincent and the Grenadines. The government is seeking to be involved and develop comprehensive standards to support the nation’s educators, but an overall lack of abundant resources leads to challenges. In terms of food insecurity and economic sustainability, however, perhaps no factor provides greater hope of a solution than education. While many challenges exist to the creation a stable food and economic supply in the country, the implementation of expanded business education opportunities that foster entrepreneurship and an increase of resources can solve food insecurity in St. Vincent and the Grenadines through an increase in sustainable industry and exports from within the country.

In order to combat food insecurity, improvements must be made to the existing small-scale agricultural production operations and new opportunities for agricultural and industrial production must be created. These are challenges that offer no simple solution. However, an educational reform to include financial responsibility curriculum and entrepreneurship skills offers a sustainable solution to the many factors that combine to provide long-term food security. Educational reform serves as a launching pad when seeking to achieve a sustainable food supply, largely because of the existing support for educational improvement. The Ministry of Education of St. Vincent and the Grenadine recognizes that “as a Small Island Developing State (SIDS) with limited natural resources, education has been identified as the vehicle that would drive citizens out of poverty so that they can secure better lives for themselves and their family members” (Ministry of Education, 2015, p. 5). With food insecurity mainly impacting impoverished citizens inhabiting the rural portions of the islands, expanded educational resources provide opportunities for income that may have not otherwise been possible. While some traditional corporations and large-scale employers play a critical economic role in St. Vincent and the Grenadines, smaller-based entrepreneurial efforts will allow individuals to attain greater economic mobility, financial success, and food security. Like most other Caribbean countries, St. Vincent and the Grenadines is a small nation, and thus “faces the common constraints of size including vulnerability to external shocks and natural disasters”, according to Ronald Ramkisoorn, a Senior Economist for Republic Bank, Ltd. (Ramkisoorn, p. 4). These size constraints include “the small size of the domestic market . . . limited quantities of natural resources . . . high levels of imports, and high transportation costs” (Ramkisoorn, p. 6). Because of these

limitations, the approach to economic growth must be led by individually focused entrepreneurship. An education reform provides the method for implementation of this solution.

For effective execution of this solution, the educational reform must occur primarily in the secondary and non-compulsory tertiary education levels. These areas of focus are carefully reviewed by the Ministry of Education, as is outlined in the National Education Targets in the Education for All Initiative Review. Specifically, these targets include “improve the quality of secondary education, improve earned transmission rates to tertiary education and the world of work; increase participation in post-compulsory education and training, improve equity in tertiary education, and the reorganization and improvement in the structure for Technical and Vocational Education Training (TVET)” (Ministry of Education, 2015, p. 25). These goals point to the government’s recognition of the need for education reform to establish a more prepared and knowledgeable population and workforce. To improve the quality of secondary education, financial responsibility curriculum should be implemented to foster wise management of existing capital resources. To increase participation in post-compulsory education, engaging entrepreneurship programs should be implemented across all islands in St. Vincent and the Grenadines. Currently, some islands lack educational opportunities beyond the primary and secondary level (Ministry of Education, 2015, p. 13). Making these programs more readily available would encourage and increase participation. These goals relate directly to the improvement of Technical and Vocational Education Training (TVET), which is essential to create a competent workforce. To promote this expansion in practical education, governmental advocacy will be an important facet of educational progress. Citizens with entrepreneurial potential must advocate for their interests and needs, and work to foster support from the national government. While economic barriers are a hindrance to government aid, education and industry leaders can serve as valuable proponents of TVET by modeling successful entrepreneurial and instructional models and articulating the likely success of students in a comprehensive TVET program. To fuel economic growth and individual self-sustainability, TVET can be provided in addition to financial responsibility and entrepreneurship curriculum to create small-scale economic growth.

To create these expanded opportunities, the means for growth must be established. As noted in the Education for All Review, the National Ministry of Education supports the creation of programs to support the vocational and technical needs of St. Vincent and the Grenadines (Ministry of Education, 2015, p. 25). This governmental support is an essential step in implementing this solution. In St. Vincent and the Grenadines’ economic context, the economy shows potential for GDP growth over time and has a steadily increasing workforce (Michigan State University, 2020). The potential exists for market growth and entrepreneurial success over time if meaningful education reform is implemented with a focus on financial responsibility. To maximize the value of educational investments, students who enroll in the expanded educational programs must be able to be profitable early on in their business venture. This goal is in accordance with current career and technical education models. In a case study at five Swedish universities, it was discovered that while “entrepreneurship education has traditionally focused on teaching individuals, many initiatives are increasingly becoming more action-oriented, emphasizing learning by doing” (Rasmussen & Sørheim, 2006, p. 194). By having students learn by engaging in entrepreneurial ventures of their own, students can be profitable and achieve economic stability in a shorter length of time. Application of similar educational reform has taken place within the past five years in the nearby nation of Trinidad and Tobago. Trinidad and Tobago’s educational reform focuses on societal mobilization and utilizes a combination of governmental and non-governmental organizations (NGOs) to foster student success. The primary structural change in Trinidad and Tobago is greater specification in secondary education for career and vocational training. Students are better prepared to pursue their chosen path (transmission to tertiary education, workforce, technical skills program, etc.) based on their interests and desires. Raiesa Ali, Research Associate at The Council of Hemispheric

Affairs, contends that “these hands-on programs will allow students to realize the practical value of education...making learning a more positive experience with greater payoffs in the end” (Ali, 2015). Following the example of this prior success, economic sustainability for citizens of St. Vincent and the Grenadines directly correlates to increased food security and a sounder economy and society.

The necessary shifts in career-focused education are dependent upon knowledgeable and credentialed educators and their connections to business opportunities. The primary focus area for small-scale business growth through education is in agriculture. In 2003, Lynda Quamina-Aiyejina, a professor at the University of the West Indies, compiled a report entitled “Education and Training in St. Vincent and the Grenadines”. In her report, she “found that despite the importance of the agricultural sector to the economic development of SVG, the general population, and farmers in particular, lacks adequate knowledge and understanding of the principles of marketing” (Quamina-Aiyejina, 2003, p. 13). Producers must gain experience in marketing their products, especially in an economy that is heavily dependent upon the tourism services sector. To address these needs, the Technical and Vocational Education Teacher Training (TVETT) program was established. Quamina-Aiyejine writes that “because the Windward Islands have a high rate of untrained technical and vocational teachers and lack adequate training facilities, TVETT was designed to upgrade the pedagogical needs of teachers” (Quamina-Aiyejina, 2003, p. 42). By using the existing TVETT framework and expanding these opportunities to all secondary and tertiary level educators, sound curriculum and courses can be developed to create economic stability within St. Vincent and the Grenadines.

As the expansion of educational opportunities is implemented in St. Vincent and the Grenadines, small business will increase in quantity and effectiveness, leading to greater food security. To support these growing businesses and this expanding sector of the economy, new financial opportunities must be provided to beginning entrepreneurs. Microfinance lending institutions provide the perfect opportunity to support new entrepreneurs. As described by the International Small Business Journal, “Microfinance brings a range of financial services, including microcredit loans, savings, and insurance, within the reach of millions of poor households not served by traditional banks” (Newman, Schwarz, & Ahlstrom, 2017, 1). While many impoverished rural-dwelling Vincentine citizens would not have access to capital from traditional financial sources, the development of a strong microfinance system can break these cycles. The microfinance model was started by the Grameen Bank in Bangladesh, created by founder Mohammed Yunus. As described in the organization’s Method of Action, the credit system is based on a survey of the existing social background, with credit officers visiting the villages and meeting with clients to build relationships. Priority is given to income-generating operations and to those who are in the most desperate situations (“Method of Action”, 2020). As the Grameen Bank describes, “training clients to be leaders will provide them with real development ethics based on rigor, creativity, understanding and respect for the rural environment (“Method of Action”, 2020). In addition to microfinance lending, small-scale investors can further propel advancement in economic and food stability. As small-scale entrepreneurial efforts gain footing, opportunities for investors to engage with business owners abound. Career-focused schools and large-scale business owners provide potential investment connections. To incentivize these relationships, investors can play a valuable role in developing curriculum and training practices within the educational system to expand their recognition and reach within the broad population of St. Vincent and the Grenadines. The positive impact on St. Vincent and the Grenadines from microfinance institutions and sustainable investments would foster an environment conducive to economic growth and a secure food supply.

Business-focused educational reform and increased financial resources have a prime opportunity to make an impact within the agriculture sector of St. Vincent and the Grenadines. Several specific areas provide

opportunities for small-business start-ups that are directly related to food production. First, banana production accounts for 60 percent of the Vincentine workforce and 50 percent of the nation's total exports (Michigan State University, 2020). By fostering sustainable start-ups in banana production, producers can become profitable in domestic and international markets while cutting out overhead from expensive transportation costs. Second, tropical fruits and vegetables, oil crops, and coffee all have potential to offer smaller yet directly focused markets to producers on the islands (Peguero et al, p. 3). Lastly, a collaboration between the tourism and services sectors with the agriculture industry can result in meaningful economic impact. For example, Ashton Lagoon is an abandoned marina development in St. Vincent and the Grenadines. A project began in 2015 to restore the location, and according to Helena Cousins of Dalhousie University, "part of the Ashton Lagoon Restoration Project involves introducing ecotourism as a means of sustainable livelihood development" (Cousins, 2018, p. 1). Opportunities such as these provide outlets for a collaboration from two vital sectors who may otherwise be in competition for valuable natural and human resources.

In conclusion, with various business opportunities available in multiple areas of the agriculture industry, the educational reforms supported by financial responsibility provide a sustainable solution to food insecurity. From the most recent estimates, St. Vincent exports over \$276 million a year with imports close to \$444 million in the same time frame (Michigan State University, 2020). With this ratio indicating a clear trade deficit, the Vincentine economy has been placed in a difficult position. With a struggling education system and economy, St. Vincent and the Grenadines has experienced a multitude of struggles with food insecurity. However, with a multi-faceted solution involving the implementation of career-focused educational reform and microfinance institutions, St. Vincent and the Grenadines can develop a stable food supply and economy. Overall, implementing a strategy of utilizing existing resources and economic sectors while expanding available resources can propel Vincentine citizens to self-sustainability. With a comprehensive solution that reaches all citizens, the beautiful, tropical scene showcased in the islands' natural beauty will represent the bright future of St. Vincent and the Grenadines and its people.

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