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Enhancing Quality Products”

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## THE ROLE OF THE GUYANA SCHOOL OF AGRICULTURE IN ADDRESSING TECHNICAL CAPACITY BUILDING FOR AGRICULTURAL DIVERSIFICATION

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**ABSTRACT:** The Guyana School of Agriculture (GSA) was established in the year 1963 by former President Dr. Cheddi Jagan. It became a state corporation in 1964 offering the Diploma in Agriculture and the Certificate in Agriculture Programmes, and graduated the first batch of 15 students in 1966. Agricultural diversification has become an important mechanism for economic growth by providing opportunities that facilitate technological advancement and demand driven government policy. In recognition of this and the consequences of the external environment that influence the process of agricultural diversification, the Guyana School of Agriculture generated a desire to build resilience into its academic programmes. In the year 1994 the Certificate in Forestry Programme was introduced, followed by the introduction of the Animal Health and Veterinary Public Health Programme in 2007 and the Certificate in Fisheries Programme was offered in 2008. The school over the years has graduated 2935 persons in different fields of agriculture and forestry celebrating 50 years of existence. This paper outlines the role of the Guyana School of Agriculture in addressing technical capacity building for agricultural diversification through the development of skills and capacities, as well as enhanced knowledge and information exchange between, the actors involved in innovation, including farmers and their organizations, agricultural research, education and training institutions, extension and advisory services institutions, and the researchers and professionals working in the agricultural sector of Guyana and the Caribbean. The School's programmes has not only allowed graduates to matriculate to local and international Universities and Collages but also their contribution to the sector has been remarkable with a geographic spread of 21 countries in the Caribbean and even in the African continent. This has been seen as a vital role in achieving robust and sustained growth in agriculture and therefore, GSA will continue to build on its strengths while seeking new opportunities for partnering and collaboration. This legacy would allow young people the opportunity to be involved in Agriculture and Forestry to realize their full potential and create wealth and at the same time preserve and conserve the environment for future generation

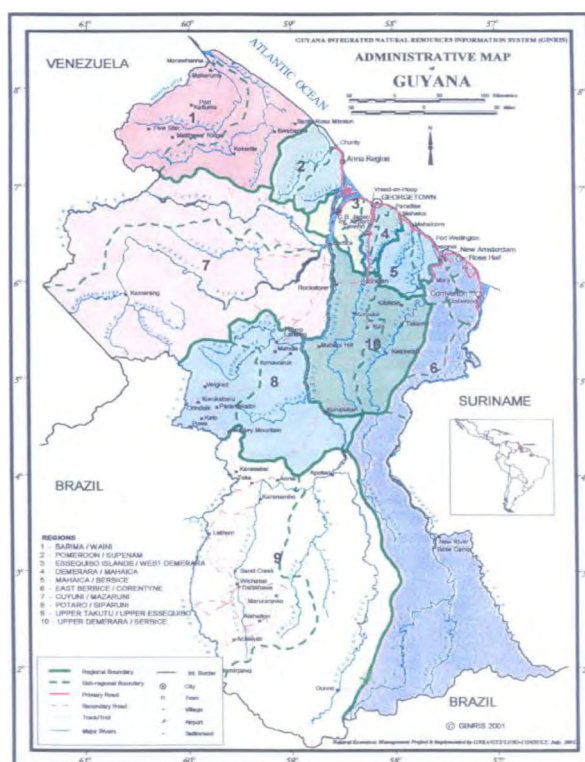
Keywords: Guyana School of Agriculture, Agricultural Diversification, Capacity Building.

### Introduction

Rapid agricultural growth continues to be the key to poverty alleviation and overall economic development of Guyana. Agriculture accounts for about 25% of the Gross Domestic product and is the source of livelihood or nearly 35% of the population. The agriculture sector in Guyana has been successful in keeping pace with the rising food demand of the Country and the Region as a whole. Due to the massive 4 Billion US dollars food import bill in 2013 by the Caribbean region agriculture will no longer be

seen as a subsistence livelihood activity. Agricultural programmes will have to promote agriculture as a wealth generator and entrepreneurial enterprise, producing food and non-food commodities to meet local and export demands.

Guyana is well placed to support agriculture because of its abundance of fertile agricultural lands, available fresh water and rich and exclusive fisheries zone.



**Figure 1. Map of Guyana Showing the Natural Resources**

In 2002 former President of Guyana Dr. Bharat Jagdeo proposed to a Caribbean Heads of Governments that the Region should build on its past efforts to develop a Common Agricultural Policy. He stressed that in the changed global environment, the “agricultural sector was neither providing for food security nor earning the foreign exchange to cover the Caribbean’s growing food import bill.” Dr. Jagdeo presented a document that outlines the constraints of the sector and the necessary interventions to be made. This document is now called the “Jagdeo Initiative”. In the Jagdeo Initiative two of the constraints identified were lack of skilled human resources and inadequate research and development. The necessary interventions that were recommended to address these two constraints were:

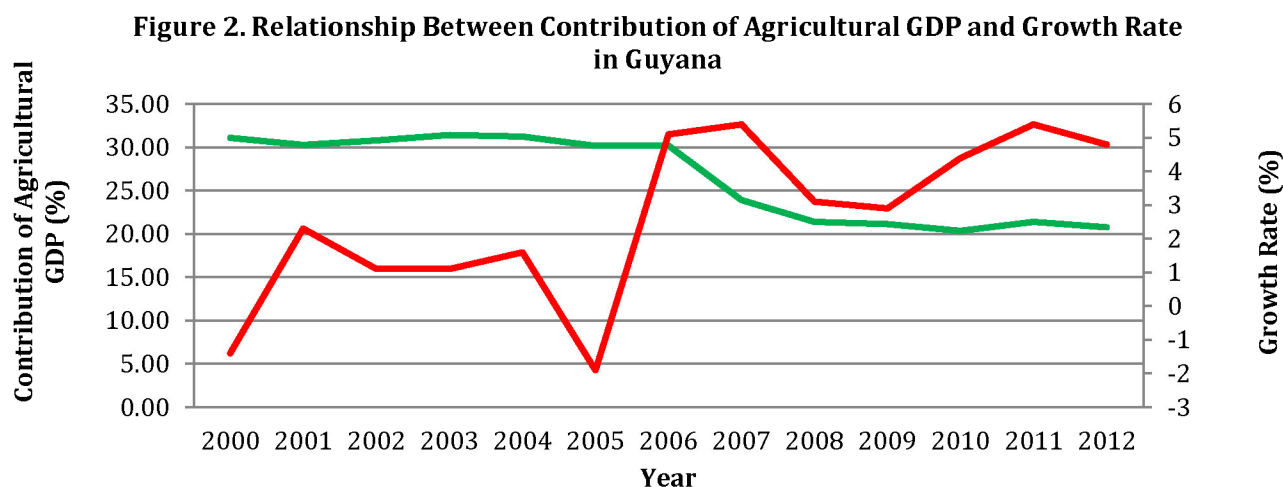
1. *Definition and implementation of a regional R&D policy and Action Plan and*
2. *Upgrading and integration of curriculum and training at all levels*

The Guyana School of Agriculture (GSA) was the brainchild of Dr. Cheddie Jagan and was established in 1963 and later became a state corporation in 1964. The objectives of the school are:

1. To offer theoretical and practical training in Agriculture.
2. To develop, manage and operate farms and undertakings of an agricultural nature, i.e. to operate commercial farms and undertakings in accordance with good farming practice.

The mission of the school is “to promote and support agricultural development through education and training of young men and women interested in an agricultural career.” The school started with two programmes; the diploma in agriculture and certificate in agriculture both being a two years programme, the latter being heavily biased towards practical.

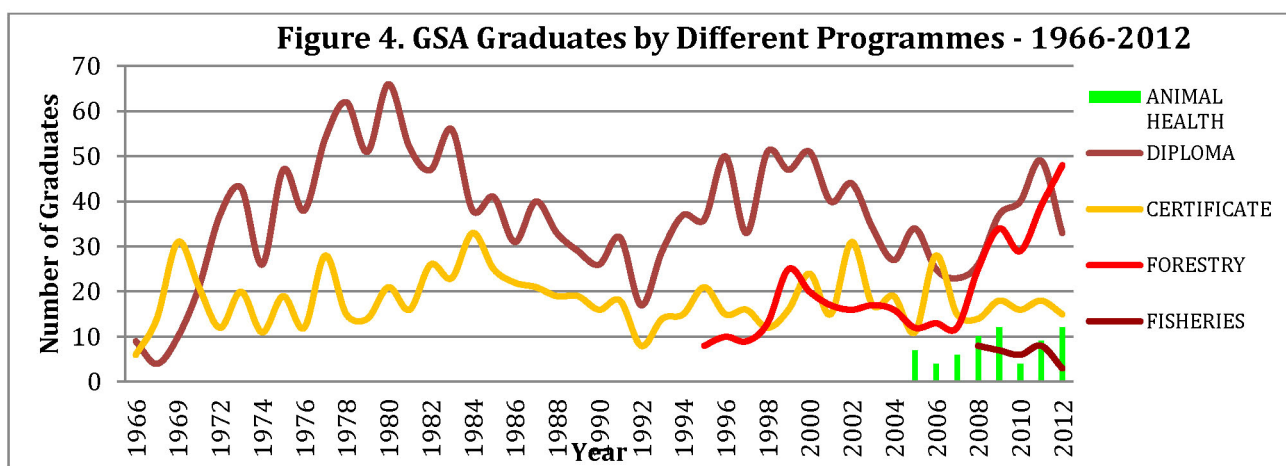
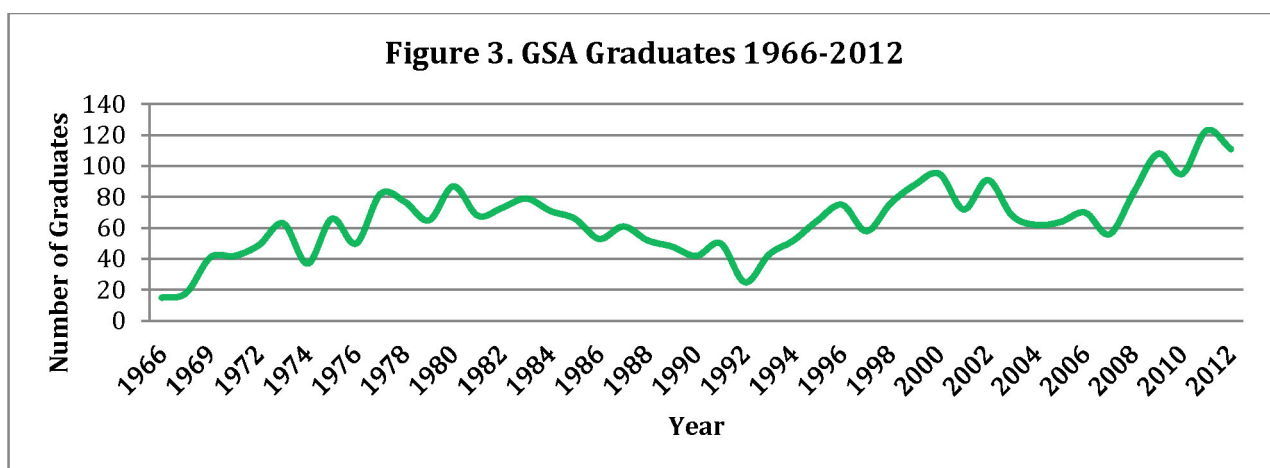
Agricultural diversification has become an important mechanism for economic growth. It depends, however, on there being opportunities for diversification and on farmers’ responsiveness to those opportunities. Agricultural diversification can be facilitated by technological breaks-through, by changes in consumer demand or in government policy or in trade arrangements, and by development of irrigation, roads, and other infrastructures. Conversely, it can be impeded by risks in markets and prices and in crop-management practices, by degradation of natural resources, and by conflicting socio-economic requirements.



From the figure above it is observed that there is a relationship between agricultural GDP and real growth rate. This underlines the importance of agriculture to the economy of Guyana. Agricultural diversification has become an important mechanism for economic growth by providing opportunities that facilitate technological advancement and demand driven government policy. In recognition of this and the consequences of the external environment that influence the process of agricultural diversification and

rural development the Guyana School of Agriculture has generated a desire to build resilience into its academic programmes. As such in the year 1994 the Certificate in Forestry Programme was introduced, followed by the introduction of the Animal Health and Veterinary Public Health Programmes in 2007 and the Certificate in Fisheries Programme was offered in 2008. The School has also extended its presence in Region 2 by offering the Diploma in Agriculture and Certificate in Forestry at the Cotton Field Campus, Essequibo Coast. As the Guyana School of Agriculture celebrates its 50<sup>th</sup> year; GSA over the 50 years has empowered over 3000 youths in the field of practical and theoretical agriculture for food security and rural development, not only in Guyana but the region as a whole.

Programmes	Diploma in Agriculture	Certificate in Agriculture	Certificate in Forestry	Diploma in Animal Health	Certificate in Fisheries	Total
<b>Total</b>	1656	820	363	64	32	2935
<b>Average</b>	37	18	20	8	6	



**Table 1. Summary of Graduates – 1966-2012**

The school produces just below 100 graduates annually, diploma in agriculture being the largest batch. GSA has graduated professionals in different fields of agriculture and forestry thereby addressing technical capacity building through the development of skills and capacities, as well as enhanced knowledge and information exchange between, the actors involved in innovation, including farmers and their organizations, agricultural research, education and training institutions, extension and advisory services institutions, and the researchers and professionals working in the agricultural sector of Guyana and the Caribbean. The School's programmes has not only allowed graduates to matriculate to local and international Universities and Colleges but also their contribution to the sector has been remarkable with a geographic spread of 21 countries in the Caribbean and even in the African continent.

### **Addressing Training Needs of the Future**

With Globalization, Technological Advancement, Climate Change and Food Security, capacity building is a key and brings appreciable benefit to farm productivity and modernization. Literacy correlates strongly, with the adoption of cultivars, nutrients management, mechanization, and with productivity. Increasingly, Guyana's agriculture sector depends strongly on science-led innovations and will require sound economic and technical management. GSA then, must see itself as part of a complex food system where its principle role is to provide a cadre of students that are:

1. Smart, Functional, Relevant,
2. Technologically sound, and above all
3. Wealth Creators, Innovators and Early adapters

GSA has recognized the challenges face in higher education in the 21<sup>st</sup> century;

1. Loss of graduates to non-agricultural sector
2. Decline of agricultural student enrolments; as the competition increase for suitably qualified high school graduates to tertiary institutions.
3. The inability to significantly impact the high food import bill as agriculture graduates shay away from agriculture.

GSA has seen that its education system is indivisibly linked with the business industries, tourism, health etc. The school has also recognized its strengths and has seen itself uniquely positioned to play a crucial role in addressing food security in the region.

### **Going Forward**

The School has constantly reconceptualize, analyze and reformulate its programmes and strategies to be more competitive and responsive to the needs of the stakeholders and the challenges of higher education in the 21<sup>st</sup> century. Some of new activities are:

1. Introduction of Food Science and Tech. Programme



2. Agro-Processing Training at the Community level
3. Setting up of Demonstration Facilities (Grow Box/Hydroponics)
4. Introduction of Short Courses
5. Collaboration with University of Guyana (UG)
6. Collaboration with national Agricultural Agencies (NAREI, GLDA, Fisheries, ASDU, etc.)
7. Collaboration with Universities and Colleges – Locally, Regional and Internationally

## **Conclusion**

While we celebrate 50 years of excellence will continue to build on its strengths while seeking new opportunities for partnering and collaboration. This legacy would allow young people the opportunity to be involved in Agriculture and Forestry to realize their full potential and create wealth and at the same time preserve and conserve the environment for future generation.



**Dr. Leslie Ramsammy Minister of Agriculture of Guyana – Checking out one of GSA’s Newest Products**



**President Donald Ramoutar being introduced to GSA Porridge Mix.**



**GSA's Hydroponics Facility**