

## AGRICULTURE AND FOOD SECURITY IN THE ECCU

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### ***ABSTRACT***

*Recent hikes in international food prices undermine the ability of developing countries to ensure that vulnerable groups have access to enough food necessary for a healthy life. This paper assesses the ECCU's food security challenges and analyzes policy measures and options available in meeting the population's nutritional needs. While social safety nets and subsidies are important in the short run, long term policy initiatives in agricultural development are imperative. Large investments in research and development, agri-business and infrastructure are paramount. Policies must also focus on reducing dependency on imports and providing incentives for greater efficiency in production.*

**Keywords:** agriculture; food security; ECCU

**JEL classification:** I38, Q13, Q18

## 1.0 Introduction

At the World Food Summit in Rome in 1996, there was a commitment by participating governments to reduce by 50 percent the number of malnourished people in the world by 2015. This coincides with the Millennium Development Goals' (MDG) hunger target to halve the incidence of hunger in developing nations within that same timeframe. Some international organizations instituted several policy guidelines and programmes in their quest to meet the above targets. Developing countries however, were expected to formulate their own policies and put mechanisms in place to compliment international efforts. The recent trend in surging global food prices has frustrated these efforts and raised serious concerns among policy makers about food security and poverty alleviation. FAO (2008c) examined these targets and outlined a road map to achieving same through investment in agriculture and rural development.

Secretary General of the United Nations in addressing the phenomenon of *agflation*<sup>1</sup> emphasized its potential to negatively affect the MDG of reducing indigence by 50 percent (of 1990 level) by the year 2015. On British Broadcasting Corporation (BBC) World News (2008) head of the World Food Program recently lamented over the level of world food reserves (lowest in 30 years) and forecasted continued increase in the cost of basic food items at least over the next two years.

Governments of developing nations, such as those in the Caribbean, have been pressured politically to implement various policy measures to help combat the negative effects of rising food prices on their populace and more so the less fortunate. Are these measures adequate, effective or efficiently managed? As international demand grows and food prices continue to soar, can agricultural production in the Eastern Caribbean Currency Union (ECCU) provide any level of food security?

This paper seeks to investigate the current state of food security in the ECCU and identify the role that agriculture must play in achieving the optimal level. It also examines existing agricultural policies and discusses some necessary interventions to ensure that agriculture plays its part in food security especially in times of shocks. The remainder of the paper is outlined as follows: definition, background and rationale, existing policies, challenges to food security, the state of food security in the region and the way forward.

### 1.1 What is Food Security?

A wide range of definitions for food security is available based on the context in which it is being referred to. The Agricultural Trade Development and Assistance Act (1990) cited in the USAID (1992)

defines food security as "access by all people at all times to sufficient food and nutrition for a healthy and

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<sup>1</sup> An increase in the price of food that occurs as a result of increased demand from human consumption and use as an alternative energy.

productive life." To put that definition in the context of the Caribbean, four facets can be identified as imperative to achieving food security namely, access to food, availability of food, utilization and stability.

Access to food considers whether persons have enough resources to get the amount and quality of food necessary for a balanced diet – the right types of food to promote optimal growth and development of the body. In the Caribbean, economic and social factors such as unemployment or underemployment and poverty may hinder individuals' access to adequate food. The quantity of food available to the populace at any given time is also crucial to food security. Food supply must be enough to allow persons access when necessary. The right kinds of food can be made available through a combination of local, regional and international production. Several factors may hinder the availability of food. Among these are lack of policies towards food security, inefficient use of agricultural land, labour and technology, high prices for food or inputs and natural or man made disasters.

Food utilization refers to the effective and efficient use of food. Skills and expertise must be used to ensure that food is properly stored, prepared and processed. Knowing the nutritional values of various kinds of food and the appropriate consumption needs of different groups and individuals serve to ensure that food is appropriately utilized. Due to factors like climate change and evolving farming techniques, many useful nutrients may be lost from the soil rendering food unstable. It is therefore important to implement measures to ensure that food maintains its characteristics for a considerable length of time. The region needs a stable supply of food, which can be effectively utilized in order to guarantee access and good nutrition for its entire population.

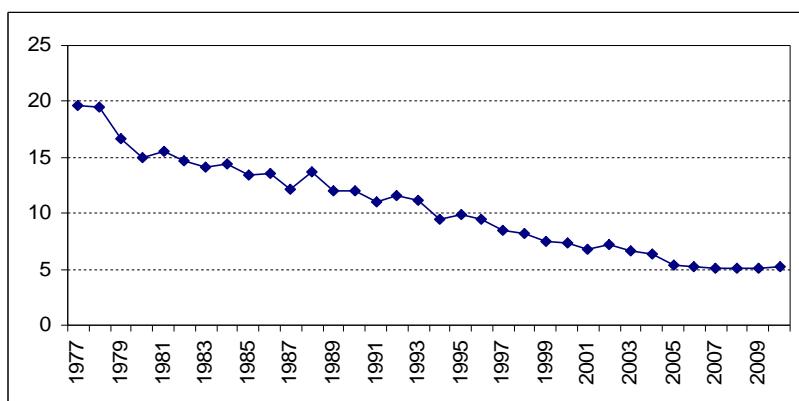
## 2.0 Background and Rationale

For decades agriculture has been the mainstay of the economies of the countries that make up the ECCU. In recent years, these economies sought to diversify into what is perceived to be more lucrative sectors like tourism and financial services but agriculture still makes a valid contribution towards the development of these countries. Agricultural activities in the ECCU remain focused on primary production more particularly crops, livestock, fisheries and forestry. Most crops like banana, coffee, cocoa and nutmeg are produced for export. Vegetables and fruits are also produced for intra regional consumption. Most of these crops come from small farms, challenged by rugged terrains, little or no technological or infrastructural development and labour shortages. Increasingly they become less

competitive as cost of production continues to rise. Opportunities exist for the further development of agro processing, limited to products like jams, jellies, hot sauces and juices.

As shown in figure 1, agriculture's contribution to GDP declined significantly over the last three decades from 19.7 per cent in 1977 to five percent in 2007. On a disaggregated level every territory experienced a fall in the contribution from agricultural activity. From 1990 to 2007, its overall contribution fell from 12 percent by seven percentage points. The Windward Islands were affected more severely as agriculture contributed significantly to their GDP. In Dominica, agriculture's contribution to GDP fell to 17 percent from 38.3 percent. In Grenada contribution to GDP fell from 25.8 percent to about seven percent during the thirty-year period. The contribution to GDP fell from 15.8 percent to close to three percent for Saint Lucia and from 21.2 percent to approximately nine percent in St Vincent and the Grenadines.

**Figure 1: Agriculture's contribution to GDP in the ECCU (1977-2007)**



Source: Statistics Department - ECCB

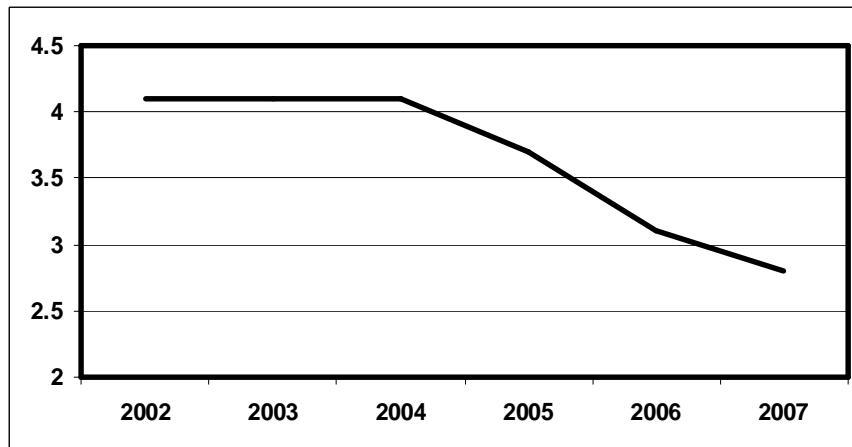
The Inter American Institute for Cooperation on Agriculture (IICA) 2003 through the Director General's address in "A new vision for Agriculture in the Caribbean in the 21<sup>st</sup> Century" noted that agriculture must be valued as the bedrock of society and the cornerstone of any economy. It continues to say that agriculture is strategic to the Caribbean economies not just in the primary sector, as it is usually recorded, but in the backward and forward linkages in other parts of the economy. If agriculture in some of these economies is considered more than just primary production, its contribution will increase and so will the impact on these small economies. Agriculture contributes to the food security and social stability of the

ECCU, both by making nutritious food available to the populace and providing income for farmers to

purchase imported food. According to ECCB estimates agriculture's contribution to GDP in the ECCU will average about five per cent over the next three years, *ceteris paribus*.

Figure 2 clearly depicts that credit to agriculture in the banking system declined concomitant with the fall in the level of importance of agriculture to GDP in the ECCU.

**Figure 2: The banking system's credit to agriculture in the ECCU (% of total credit)**



Source: Statistics Department - ECCB

In the Windward Islands credit to the sector over the last decade fell by more than 50.0 per cent in some instances. The fall in support for the industry was also reflected in the governments' budgetary allocations to the sector, as the amount dropped significantly over the last three decades. Ayres and McCalla (1996) believe that improving productivity in agriculture can serve as a catalyst for growth in the non-agricultural sectors. Improvement in agriculture can only be achieved through increased investment in the sector. The International Fund for Agricultural Development (2008) supported this view in an analysis of the recent developments in the world food markets. They highlighted the implications for low income households and small farmers and emphasized the need for both private and public sector organizations in developing nations to invest in agriculture.

Given the importance of agriculture in achieving food security, much more must be done in the ECCU if agriculture has to play its part in the region's food security. Agriculture must be treated as a viable business driven by the private sector. In order to achieve this objective the current trajectory of the performance and investment in the sector must be changed. Policy makers need to fully understand and

appreciate the connection between agriculture and food security. They must be cognizant of the fact that a lack of interest and support for the sector has adverse implications for food security.

### **3.0 Some Policies Guiding the Development of Agriculture in the Region**

Considering the importance of agriculture in food security, efforts have been made at regional and international levels towards sustaining the sector in developing countries. Many organizations driven by the MDG have joined efforts to ensure the sustainability of this very vital sector. The Food and Agricultural Organization (FAO) has been a champion for the cause of agriculture worldwide. Their policies to defeat hunger and ensure good nutrition for all drive assistance to the ECCU in modernizing and improving agriculture, forestry and fisheries practices. They serve as a knowledge network through the expertise of their staff - agronomists, foresters, fisheries and livestock specialists, nutritionists, social scientists, economists, statisticians and other professionals - to collect, analyze and disseminate information that will assist development. Through policy experts, FAO shares its wealth of experience with member countries in devising agricultural policy, planning, drafting legislation and creating national strategies geared towards achieving development in the rural areas and mitigating the effects of hunger and starvation. They also assist in sourcing and managing projects to boost the agricultural sector in the region.

IICA's policies towards sustainability and global competitiveness assist the Organization of Eastern Caribbean States (OECS) territories in building capacity in the agricultural sector in an effort to preserve the sector's *raison d'être*. Services that will guide agriculture and agri-business in the Caribbean are provided through Caribbean Regional Centres (CaRC) (IICA 2007). The six independent countries of the ECCU, namely Antigua and Barbuda, Dominica, Grenada, St Kitts and Nevis, Saint Lucia and St Vincent and the Grenadines are part of the IICA initiative and are guided by IICA's policies through the representative offices in those countries. IICA assists the Ministries of Agriculture and farmer cooperatives in areas of high priority targeted to develop human capital and support Caribbean integration and the transformation of Caribbean agriculture. CaRC, through its policy to provide technical support to the region, assists in strategic areas of trade, science, technology, natural resources, agricultural health, rural development, training, education, information and communication. They guide the countries through the policy-making framework in these areas.

CARICOM<sup>2</sup> in crafting their treaty recognized the importance of the agricultural sector through Protocol V- agricultural policy (Protocol Amending the Treaty Establishing the Caribbean Community). CARICOM (2007) reports that the protocol seeks to establish and implement with the assistance of the Council for Trade and Economic Development, a community agricultural policy. It also addresses the issues of human and natural resource management, research development and the use of technology, marketing of agricultural products and fisheries and forestry management and development.

The Jagdeo Initiative (Strengthening Agriculture for Sustainable Development) advocates a paradigm shift on the premise that agriculture is a business which encompasses a wide range of activities and will play a pivotal role in wider economic and social objectives of CARICOM (2006). Implementation of this initiative will only be successful through the forging of good relationships and partnerships between the private and public sectors.

CARICOM Protocol V and the Jagdeo Initiative identified areas of priority for the region such as improving trade, transportation and collaboration among the member states. The OECS (2003) through its agricultural policy framework posits that in order to maintain the social, economic and political stability of the OECS, it is imperative that these economies expand the agricultural sector and become efficient in production. A paradigm shift from public sector investment and financing to an initiative determined by the private sector is therefore essential.

Apart from international and regional policies for the development of the sector, member territories have individually crafted policy measures to guide their ministries of agriculture towards achieving the long-term goals set by these regional and international organizations. The countries' endeavour towards individual strategic plans is important since territories though similar are unique in terms of agricultural resources. Be that as it may, the synergies of cooperation and integration cannot be overemphasized.

Though agriculture in Anguilla is done on a very small scale the government articulated policies to promote and support, in a sustainable manner, a growing, market-oriented agricultural industry that will foster community economic development (Anguilla Budget Address 2007).

Antigua's policy focus is on building competencies in farm management, providing farmers with the necessary training and support to help improve yields, building infrastructure, training fishermen and

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<sup>2</sup> Seven of the eight ECCU territories are members of CARICOM and Anguilla is an associate member.

improving management skills. The ministry's agenda includes enhancing agricultural health and food security and promoting agro processing and export of agricultural products to improve competitiveness.

The areas of priority for policy in Dominica are formulating techniques that would assist in building capacity, encouraging agricultural diversification through the training of farmers in non-traditional areas and getting the rural communities, which are mainly agrarian based, involved in the development of the sector.

The main aim of policy in Grenada is to facilitate agricultural development through the promotion of sustainable use of natural resources and the provision of quality products and services in order to enhance the quality of life of their people. They intend to continuously rehabilitate the sector and strengthen its institutional capacity.

Since the majority of the agricultural plants in the south were destroyed by volcanic activity, Montserrat's policy efforts are geared towards the redevelopment of agriculture and other natural resource sectors in the north using traditional and emerging techniques and technologies.

The agricultural sector in St. Kitts and Nevis, still recovering from the closure of the sugar industry, is geared towards diversification into non-sugar crops and in that regard, government policy seeks to provide avenues for former sugar workers to be retrained and equipped for new opportunities. While the scarcity of arable land has posed a major challenge for policy makers in Nevis, the administration remains cognizant of the importance of food security and is making a concerted effort to use modern technology to get the sector competitive.

Agricultural policy in Saint Lucia seeks to encourage more private sector investment in farming, fishing and agro processing, to develop and modernize the sector in an effort to enhance production, using environmentally friendly methods. Their policy framework attempts to *inter alia* promote the use of technology, ensure national food security, improve the quality of life in the rural areas, manage natural resources effectively and undertake policy and legislative reviews.

In St Vincent and the Grenadines, government adopted some policy initiatives to improve the quality of crops, the efficient management of fishing equipment and amenities and rehabilitation and revitalization of the banana industry. Their national agricultural plan prioritizes land use and management, training and education for young farmers, opportunities in agro processing and enhancing legislation all under a programme for food security.

Notwithstanding their national policy initiatives, the openness of the OECS economies, the vagaries of the global market and their increasing dependence on imported food, make it impossible for countries to achieve food security individually. Byerlee (2007) proposed that OECS countries should import more

from the developed countries in an effort to bolster their food security. It is therefore incumbent on regional governments to cooperate in addressing the concerns of food security. Policies that promote a combination of domestic production and imports are necessary for their food security goals, since it is not possible to produce the quantum and variety needed for domestic demand.

The World Bank (2008) in its development report identified the success of agriculture in the growth process and poverty reduction in South Asian countries and examined the role for agriculture in transforming many economies. It concluded that when good agricultural policies are effectively utilized, various levels of food security can be achieved. Existing policies in the ECCU should therefore be reexamined and strengthened to design a clear road map to food security. Efforts should be combined to make more effective use of IICA and FAO in developing, funding and implementing common policies for the region. The recent hikes in international food prices has cemented the need for the region to collaborate much more on procurement, storage, distribution and other policies related to food security.

#### **4.0 Food Security Challenged**

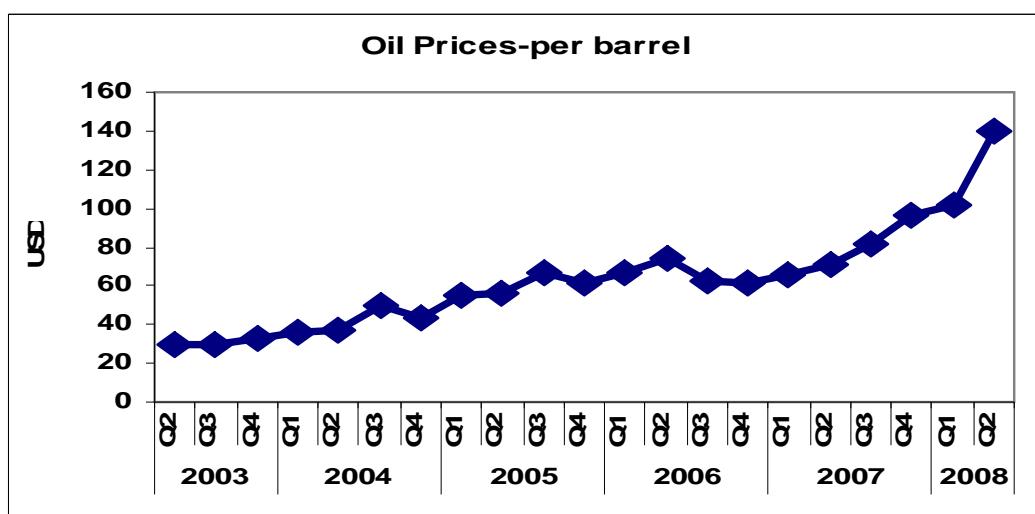
One of the major challenges to the access by all people to sufficient food is the price of food. A combination of factors on the global front has fueled agflation. *Inter alia* are the increasing demand for food, driven by rapid economic growth and accelerated urbanization in developing countries and a fast growing world population supported by countries like India, China and Brazil. With fuel prices reaching record heights, the use of food commodities like maize are diverted towards heavily subsidized production of grain-based bio fuels as an alternative source of energy. Other contributing factors include changing global trade policies, which give rise to distorted agricultural trade where rich countries give large subsidies to local farmers. Also, a lack of investment in agricultural research and development, high cost of inputs and transportation, largely attributable to rising international oil prices and production shocks led by droughts, animal and plant diseases and evolving climatic changes.

From the latter half of 2007 to early 2008, food prices increased by approximately 60 percent and triggered food riots from Haiti to Egypt and from the Ivory Coast to Bangladesh. The Director General of the FAO referred to the current crisis as a risk to peace and stability around the world. The FAO (2008d) reports that over the past three decades (between 1975 and 2005), real food prices declined by 75 percent, but have recently (from 2005 to 2008) risen by 75 percent. The FAO food price index (FPI) grew by almost 40 percent in 2007, compared with nine percent in 2006 (see appendix 1). These price hikes persisted into 2008 and by May the FPI was more than 50 percent above the corresponding month of the

previous year, impacted by several commodities. The price of cereal increased by 84 percent influenced by a tripling in the price of wheat earlier in the year, and the more than doubling in the prices of maize and rice. An increase in demand for protein has forced meat prices to their highest since 2005. In the first quarter of 2008, the index for oils and fats was 98 percent above that of the comparative period in 2007.

As shown in figure 3, fuel prices increased astronomically from a record high of US\$78 per barrel in 2006 to US\$100 in January 2008 and US\$144 at the end of June 2008 (Bloomberg 2008).

**Figure 3: World fuel prices – 2003-2008**



Source: Bloomberg (2008)

According to Diouf<sup>3</sup> (2008a) the problems and concerns of world food security are further exacerbated by higher prices for agricultural inputs, the annual loss of agricultural land to degradation and climate changes and the depreciating US currency used in commodity trading. He attributed the current food crisis to the diminishing support by international donors to agriculture in developing countries. The FAO (2008a) noted that development assistance to agriculture fell to three percent in 2006 from 17 percent in 1980 and developing countries invest less than one percent of their GDP in research and development for the agricultural sector.

#### 4.1 Food Prices in the ECCU

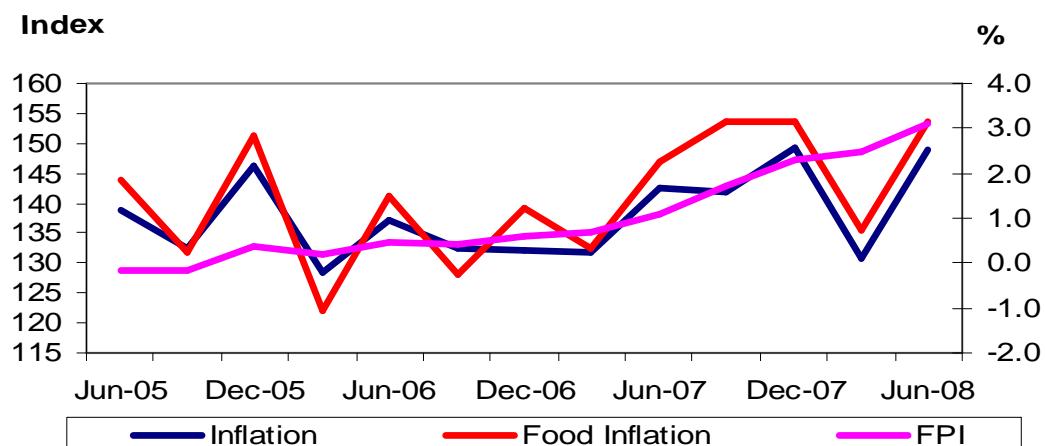
The open nature of the economies of the ECCU allow for quick transmission of worldwide inflationary pressures into the domestic economy. Persistent high prices in these small economies may

<sup>3</sup> FAO Director-General

weaken consumers' purchasing power and cause them to lose confidence in the economy. Consequently, the ability of policymakers to effectively allocate resources is severely hampered.

Consumer prices in the ECCU, shown in figure 4, grew from 0.4 per cent in the first quarter of 2005 to 2.5 per cent at the end of June 2008. For that same period, prices in the food sub-index, which is the largest weighted in the consumption basket used in calculating the CPI in most of the territories<sup>4</sup>, rose by 2.7 percentage points to 3.1 per cent. It is evident that the price of food is growing faster than prices of non-food commodities and puts upward pressure on the general price level. Such a situation threatens living standards, mainly for the poor and indigent.

**Figure 4: Recent Prices in the ECCU**



Source: Statistics Department - ECCB

The commodity price matrix (appendix 2), consisting of prices of basic commodities in the ECCU, shows increases in all basic food items from August 2005 to August 2008. The price of a can of evaporated milk (14 ounces) increased by 23.6 per cent over the three year period mainly due to changes in international prices for dairy products. The price of a bag of flour (5lbs) and a bag of rice (2kg) increased by 39.2 and 66.5 per cent respectively. The high price of flour was driven mainly by developments in the price of wheat in the international market. Adverse weather and supply restrictions imposed by some of the major producers and exporters for wheat caused a vast decline in global wheat stock and hikes in prices as international demand far outpaced supply. The region may want to consider pooling resources to explore

<sup>4</sup> Antigua is the only country in the ECCU where food is not the largest weighted in the CPI

other alternatives to flour production like banana, breadfruit, cassava, arrowroot. These initiatives could help combat the effects of high prices and offer an avenue to boost food accessibility.

During the last three years the average price of gasoline in the ECCU increased by about 70.1 per cent, reflecting the increases in international fuel prices (Bullen, 2007). Fuel prices influence transport and manufacturing costs of food items; therefore as input prices elevate, output costs are expected to follow suit. Alternative forms of energy now come to the fore, all in an effort to reduce production costs and ultimately increase consumers' spending power.

## 4.2 Impacts of Rising Food Prices

Surging food prices may have differing impacts among countries and within countries. Those who will benefit most are farmers in rich and emerging markets which are net exporting countries. These countries' terms of trade and balance of payments positions will improve as a result of the higher prices for their agricultural products. Conversely, poor people who live in the urban areas in developing countries will be hardest hit as they will have to pay much higher prices for imported food from their already small incomes.

According to the World Food Program (2008), escalating food prices have forced at least 100m people below the poverty line, 50m in 2007 alone and approximately one billion persons are still living on less than US\$1 per day. Sheeran<sup>5</sup> (2008), cited in World Food Program (2008), indicated that during the first half of 2008, the World Food Programme paid on average 54.3 per cent more for food commodities and expects reserves to decline further. She referred to the current phenomenon as a "silent tsunami" for the world's hungry.

According to Jessop (2008), the Caribbean region imports approximately US\$3.5 billion of food on an annual basis, and this figure is expected to increase to an estimated US\$5 billion in 2008, primarily due to the huge increase in the price of imported food. Countries of the ECCU depend heavily on imports of all categories and are net importers of food. Consequently the rising food prices are expected to worsen their balance of trade positions and impact negatively on the poor.

Some governments in the ECCU have taken fiscal measures in an effort to mitigate the impact of high food prices. Measures included tariff reductions, tax exemptions, subsidies on food items and price control. These measures have the potential to weaken revenue collection and worsen the governments' fiscal positions.

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<sup>5</sup> Executive Director of World Food Programme

On the social front, the nutritional level of the poor will be compromised as they switch to more affordable products with less nutritional value, which will adversely affect their health in the long run. Healthy individuals are the cornerstone of a productive workforce; therefore productivity will be adversely affected as health levels decline. Also food protests and riots are likely as people become angry with authorities when they are unable to feed their families. Food riots in Haiti and looting of food trucks in Trinidad are examples of the social implications of high food prices. There have also been consumer demonstrations in some countries which have the potential to develop into social unrest. Social stability is important to economic development, which is the optimal goal.

## 5.0 Assessment of Policy Responses to Increasing Prices

Governments around the world in their quest to protect those at greatest risk have implemented different policy options, mainly export restrictions, price controls and liberalization of imports. Typically, these policy measures do not always target the most needed consumers and may reduce the price that farmers receive as they are forced to keep their products at home and are unable to export to countries where demand is high. These measures serve as a disincentive to planting. Restuccia, Yung and Zhu (2007) examined the importance of agriculture in small economies and showed how pervasive barriers such as access to modern inputs and government policies can significantly impact aggregate productivity. The regrettable consequences are further reductions in food supply in the international market, hence further increases in prices.

CARICOM heads decided to suspend the Common External Tariff (CET) on a large number of food items for periods ranging from six months to two years. In most countries in the ECCU, cabinet reviewed and implemented the exemptions. These measures bring temporary relief but cannot be sustained in the long run since most of these small countries are already constrained by tight budgets and fiscal difficulties. The loss of revenue for governments will also have other macroeconomic implications and it is not certain whether these economies can afford to continue the tariff/tax suspensions in such a challenging environment.

Apart from the CET, a few countries in the ECCU decided to adopt other policy measures to ensure food security for households through targeted safety nets and to lower domestic food prices. Measures included the removal of import and custom duties, distribution of food items, zero rated food items and update of price control regulations. Some jurisdictions attempted to educate the public on spending and monitoring of consumption. This sparked the revamp of social groups like consumer protection and

consumers against high utility rates. Safety net programmes in Grenada, St Kitts, and Antigua and Barbuda enhance the purchasing power of the lower income households and do not stifle local agricultural production. While these initiatives support the poor, they continue to add to the fiscal burdens of the governments. This begs the question - How long can such programmes be sustained?

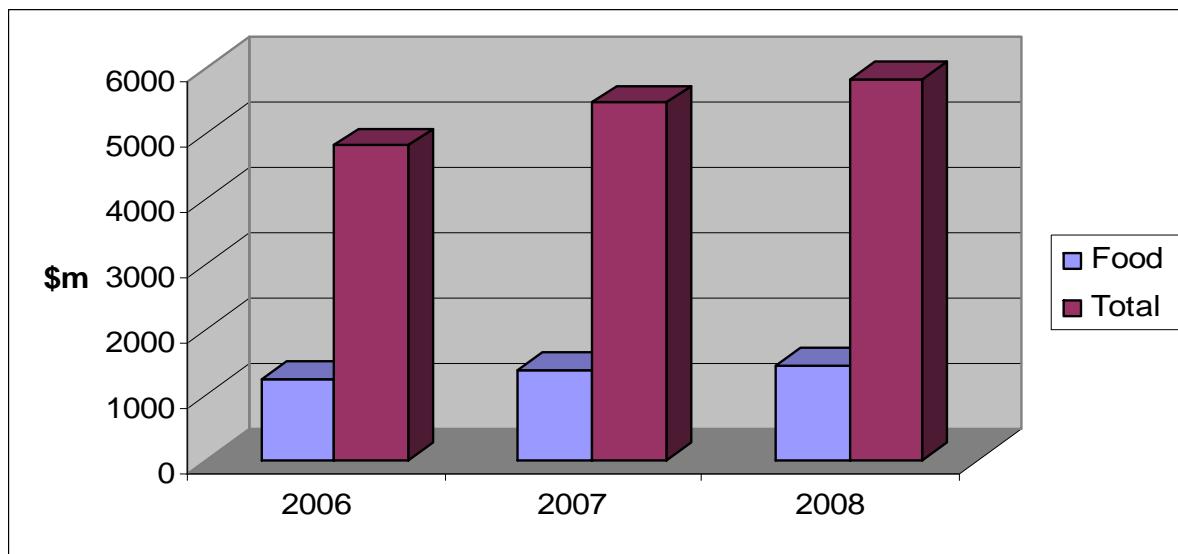
Price control policies, though they previously existed in about seven of the eight ECCU territories, were expanded to incorporate many other basic food items. These measures did not restrain the rising prices, since merchants continued to pass on increases to the consumers as governments attempted to control their level of profits. In some countries, like Saint Lucia and Anguilla, government granted salary increases to public servants. These salary increases have not curbed the situation since merchants have increased prices further. Also the fiscal implications are that government will now spend much more for personal emoluments, hence a rise in current expenditure.

Most of the policy interventions offer only short-term relief and therefore governments need to consider and implement measures to augment food supply and ensure food security in the longer term. St Vincent and the Grenadines led the way in an endeavour to revamp the agricultural sector to assist in food security and some other territories are attempting to tag along. One cannot underplay the role of politics in the formulation and implementation of agricultural policies. Some policies are implemented not necessarily because they are economically sound but as a consequence of political pressures. The politicians are forced to make less than optimal decisions, with great fiscal implications, to ensure that they maintain the support of a certain proportion of the electorate.

## **6.0 Food Import and Export in the ECCU**

The countries of the ECCU as net importers of food contribute largely to the US\$3.5 billion import bill of the Caribbean region. On average, food imports in the ECCU territories make up about 25 percent of the total value of imports as illustrated in figure 5. In 2006, the food import bill stood at \$1239m and grew by 11 percent in 2007. The value of food imports is projected to increase by about five percent in 2008. Domestic exports in the ECCU largely consist of agricultural products and valued at \$274.9m in 2006 and \$283.9m in 2007. Banana exports from the Windward Islands made up 31 percent of the value of food exports in 2006 and 26 percent in 2007. Banana's contribution to total food exports is expected to drop marginally in 2008. Food exports in the ECCU contributed 42.9 per cent of total exports in 2007 and the region may want to sustain this source of income.

**Figure 5: ECCU import bill (2006-08)**



Source: Statistics Department – ECCB

The ECCU exported about 22.2 percent of the value of food which they imported in 2006 and 20.6 percent of that value in 2007. For the first half of 2008, the proportion of food exports to imports was 20.8 percent. A large proportion of the imports of the ECCU comes from outside the region, hence exposure to the vagaries of international market conditions and supply shocks. More intra-regional trade is necessary at this juncture. Agriculture in this region emphasizes mainly export crops. To ensure food security in the region, diversification in agriculture is necessary. Export earnings are important to the economy and the development of agri-business would ensure that the export earnings remain. Agriculture must take a leading role in the transformation of the Caribbean economies.

## 7.0 The State of Food Security in the ECCU

Food insecurity exists where access to food of a nutritionally acceptable level is limited or unreliable or a regular supply of food is unavailable. Literature posits a plethora of indicators which can be used in the assessment of food security. A cursory look at the incidence of poverty in the ECCU may further highlight its food security challenges.

Country poverty assessments done by the Caribbean Development Bank (CDB) in 2002 showed the incidence of poverty in the ECCU to be on average more than 30 percent of the population CDB (2002). The existence of poverty in these islands have tempered for some countries but worsened for others like

Saint Lucia and Antigua and Barbuda (CDB, 2007). About 175,320 people in the ECCU do not have sufficient food. The Human Development Reports of 1995 and 2005 show that the Human Development Index (HDI) value of five<sup>6</sup> of the countries in the ECCU worsened between 1995 and 2005. A fall back in HDI rankings is also indicative of food insecurity. Recently, farmers are getting less export income as the main export crops like bananas face global challenges and erosion of preferential treatment. Consequently their purchasing power is weakened – a symptom of food insecurity. FAO (2008b) posits that growth in the agricultural sector is pivotal to poverty reduction.

Given the current global financial market crisis and international food prices, poor families are required in some instances to spend more than three quarters of their income on food, hence falling further below the poverty line. As costs of imported food commodities continue to increase, the health and well being of the poor are impacted as they switch consumption to more affordable products and resort to one meal per day. If poor families in rural areas are able to grow more of what they consume and are empowered with resources to enhance their output, food security becomes less of a burden in times of global shocks. Food insecurity in the region is exacerbated by disasters, both manmade and natural, mostly hurricanes.

## 7.1 Impact of Disasters on Food Production and Security in the ECCU

One main factor for consideration with regards to food security is the region's vulnerability to shocks, especially natural disasters. Every year during the hurricane season<sup>7</sup> the region suffers the onslaught of heavy winds, floods and storm damage to agricultural crops and farm infrastructure. The topography of some of these islands predisposes them to landslides and soil erosion which results in loss of crops at various stages of their developments, compromising the stability, safety and availability of food for all classes in society. A consequence to that is a loss in agricultural investment which can be very costly to small farmers who have little or no insurance.

Over the years hurricanes have wiped out the agricultural sector in some of the countries in the ECCU and forced businesses to seek alternative supplies in an effort to satisfy demand for vegetables and other crops. While domestic supply is easily accessible, it becomes unreliable and more costly especially during these times of shocks. Foreign exchange from export crops is also lost since crops require time to recover or to be replanted. These shocks can have devastating effects on the economy of small states. Some attention should be given to crop insurance to mitigate against such eventualities.

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<sup>6</sup> Only the six independent countries in the ECCU are represented on the HDI

<sup>7</sup> June 1 to November 30

Grenada's agricultural sector and the economy as a whole are still recovering from the effects of Hurricane Ivan in 2004. Export crops like nutmeg, mace, cocoa and banana were totally wiped out and resulted in significant losses in export revenue. The Ministry of Agriculture estimated total losses of US\$44.6m in damage to production and infrastructure. More recently, in August 2007, Dominica and Saint Lucia both became victims of Hurricane Dean. Not only did it destroy crops and agricultural infrastructure, it also affected the merchandise trade balance as the main export crop (banana) suffered a severe blow. In assessing the macroeconomic impact of Hurricane Dean on Dominica, the Ministry of Finance estimated total damage of about EC\$162m, close to 24 percent of GDP Dominica (2008). Damages to Dominica's agricultural sector were approximately EC\$45m while loss of earnings from banana totaled about \$33.7m. Government of St Lucia (2008) estimated the total impact on the economy of Saint Lucia at EC\$50.8m. The agricultural sector was dealt a blow estimated at EC\$22.6m, bananas being the hardest hit. Such damage has serious fiscal implications, since governments have to source financing to plow back into the sector in order to encourage economic activity. How do we recover from these shocks? Do we have food stock or aid available in times of emergency?

## 8.0 The Way Forward

Diouf (2008b) is of the view that to alleviate the problems posed by the increasing demand for food, world food production would need to double by the year 2050 and most of that production growth would have to originate from the developing nations. He added that to achieve this milestone, poor farmers in these countries will have to be provided with contemporary inputs, rural infrastructure and amenities for storing their produce. In this light countries in the ECCU need to be empowered for increased productivity in the agricultural sector. Policies on agriculture must be implemented, not just discussed. Achieving food security will have to include the best combination of regional and international imports and local production involving the development of agri-business. The region's food portfolio must be strongly supported by the enhancement of the agricultural sector.

Romer (2008) posits that in order for countries to grow, their potential output needs to increase and that involves augmenting labour, capital and technology (see ECCU's potential output in appendix 4). When one looks at the trend of growth in agriculture in the ECCU, it is apparent that actual output has hovered around potential output over the last three decades. In that case, potential output in agriculture has been constrained by a number of factors and needs to be bolstered. That would require large investments in the agricultural sector. These investments would include technological advancement, use of

contemporary inputs, infrastructural development, research and development, training of farmers to improve their capacity and more efficient storage and distribution facilities. Incentivizing the sector to attract young people to agricultural growth and development is also paramount for sustainability of regional agriculture.

The role of agriculture in the development and growth process has been diluted as a result of a failure to allocate sufficient resources to the sector. Incentives to agriculture have declined not just in the ECCU but by international donor agencies. While governments are spending less and less on agriculture more emphasis is placed on other sectors which may be better developed if done in concert with agriculture. ECLAC (2008) has estimated that the continued increase in international food prices is likely to result in "destitution for more than 10m people in the region... if urgent measures are not taken". The time for these urgent measures is now. As a region the ECCU needs to negotiate collectively with donor agencies for more technical assistance in agricultural research and development and tools to assist farmers to increase their yields and gain more revenue to secure food for their families.

## **9.0 Conclusions and Recommendations**

While most of the factors driving food price inflation and compromising food security in the region are exogenous, the territories of the ECCU can take policy initiatives that will mitigate the negative impact on their populace and secure food, especially for the most vulnerable. The role of agriculture in that regard is fundamental and a collaborative effort will offer great synergies for the region.

Firstly, the public needs to be educated on these issues, which are so salient in the development of these countries. Apart from the use of radio and television programmes, which may not be accessible to the most targeted groups, other forms of public education need to be utilized. Town hall meetings and programmes through local farmers' associations and consumer protection groups should be organised to educate the public on the importance of making smart consumption decisions and how agriculture can assist in the fight against high food prices. The public should know the importance of maintaining peace and stability for the overall well being of a country.

Dominica and St Vincent and the Grenadines started an initiative "*grow what you eat and eat what you grow*". Other countries can learn from those home grown ideas. Eating more of what is locally grown has many benefits. Foods grown in the region have high nutritional value and could support healthy diets in the fight against non communicable diseases, which is of great concern to health officials. Land owners need to cooperate in this venture and deal fairly with those who offer services as labourers.

The price of land in the OECS has been increasing rapidly and it becomes more difficult for farmers to own land. Crown lands that are left idle should be leased on favourable terms to local farmers. Policies to allocate portions of land solely for agricultural purposes and to sell agricultural land at concessionary prices should be encouraged. The sale of agricultural land for commercial purposes should be addressed. Linkages with the tourism and manufacturing sectors can be established as business ventures, where more local producers supply to restaurants, supermarkets, hotels and agro processing plants on a regular basis. Opportunities exist for linkages with health, where agricultural entities and farms can be used for nutritional and medical research.

The economy of St Kitts and Nevis is in transition, quickly diversifying into tourism. The authorities with the assistance of IICA have developed a national strategy for strengthening the tourism sector through linkages with agriculture. Consequently Nevis has adopted a community tourism approach to include, but not limited to, farm tours and food festivals. Three communities in Nevis were chosen to start the project and so far the feedback has been quite positive. Agro-processing is also making serious inroads in St Kitts and Nevis, where a cooperative has been formed, equipment procured and marketing opportunities are being explored. Such initiatives are encouraged and can augur well for the much needed linkage between agriculture and the other sectors. Other linking initiatives have also started in some of the other islands, especially in providing supermarkets and hotels with fish and agricultural products. These efforts are commendable as the multiplier effect can augur well for the fragile economies of these territories. A doubling of efforts is required since the region is lagging in terms of economic growth and development.

Governments need to further develop their social protection programmes, including the safety nets that would transfer income and or food to the poor and more susceptible members of society, like the infants and elderly. Incentives to farmers will increase production and make more food available, but the poor may not have access to this food if they do not have the income to purchase it. The purchasing power of the poor should be strengthened to increase their access to food. Safety net programmes must be managed efficiently so as to alleviate the plights of the specifically targeted groups. Granting of general subsidies on food or other items should be avoided.

Long run measures should focus predominantly on improving and advancing the agricultural sector. Countries in the European Union (EU) have changed their policies and institutional arrangements to foster growth in agriculture and battling poverty. The region can learn from their successes and benefit through technical support and training. Chapter five of the recently signed Economic Partnership Agreement

(EPA) between EU and the CARIFORUM states makes provisions for discussion on pertinent issues like technological advancement and developmental policies. Negotiations to facilitate this process should be done on a regional level through OECS or CARICOM. Sound and stable agricultural policies are mandatory to drive the sector forward.

More attention must be given to agricultural research and development. The EPA also allows for discussions on improving the standard and quality of products through research and development, building technical and human capacity that will assist in compliance with international standards in agricultural health, food safety and the environment. Scholarships for education in the region's agricultural sector should be foremost in the minds of the planners. They should explore all the opportunities presented by the EPA to the region's benefit (Kateng, 2006). Young people should be given incentives to work in the sector through research and other fellowships. More funds should be channelled into agricultural research centres in the region, so that the region can better manage the challenges placed by pests and the use of chemicals in the environment. Other contemporary options like genetically modified food may be explored.

Improving the legal framework in most of the countries is a necessity. Quick registration of agricultural land should be facilitated and farm holders able to use their land with ease for collateral in agribusiness ventures. Lease arrangements with governments and private land owners should be formalized. Investors get leases up to ninety-nine years in some countries. Some of these concessions may be extended to farmers and labourers to encourage productivity. Laws against praedial larceny should be revised to allow for stiffer penalties for offenders. Farmers should be justly compensated for their hard work.

The presence of agricultural infrastructural projects in the capital budget of governments is slowly fading. Ministers of Agriculture on a regional level should lobby for bigger tranches for agriculture. The topography of some of the ECCU territories, especially the Windward Islands, puts farmers in the rural areas at a great disadvantage. Access to their plots is limited and the cost of cutting roads to these farms is astronomical. Developmental aid to accommodate rural infrastructure is important for boosting the agricultural sector. Ease of access supports efficiency in production and distribution which are necessary for a competitive sector.

Joint ventures on the purchase and distribution of seeds and other agricultural inputs may result in cost savings and improve competitiveness. Pharmaceuticals for the OECS are purchased in bulk. These countries have realized tremendous savings through their cooperation in that area. It needs to be extended to agricultural inputs and this can only be done when agriculture is seen as a viable business. In some

countries farmer cooperatives purchase inputs in large quantities to realize cost savings, but the quantum is not large enough to realize the kind of savings that would make a difference. A regional effort to the purchase of agricultural inputs could benefit the small farmers.

Policies to advance intra- and inter-regional trade are also important. Trading of agricultural produce in their raw form requires quick delivery, and in their processed form needs to reach the markets on time. The implementation of a fast intraregional ferry service should be treated with urgency to facilitate efficient distribution in support of food security. Storage facilities that would secure food and maintain a stable food supply in times of emergency and/or shocks are also imperative.

The issue of productivity in the agricultural sector is discussed in a myriad of forums. For products to remain competitive productivity must be increased. Lewis (1950) cited in Emmanuel (1994) proposed that increasing agricultural productivity required a reduction in the supply of labour to agriculture. In those days there was much more man power in the sector; almost every one was employed in agriculture. In contemporary times the opposite is necessary - more skilled individuals- for productivity in agriculture. Training for farmers and potential farmers will increase the quality of their output hence command higher prices for their produce. Training should also include fish farming which is a very underdeveloped sub-sector. The school agriculture programmes need to be enhanced. Some of the secondary schools in the region do Agricultural Science, but there is a lack of trained teachers. As a result the best foundation and enthusiasm are not established in these crucial years. A boost for the school programmes could only enhance the drive towards youth in agriculture. Collaboration is also paramount to increasing productivity in the region's agricultural sector. Both private and public sector productivity should be enhanced and the scope for more renewable and affordable sources of energy for processing must be expanded. Initiatives for solar, wind and geothermal energy must be encouraged especially in light of developments in the international oil market.

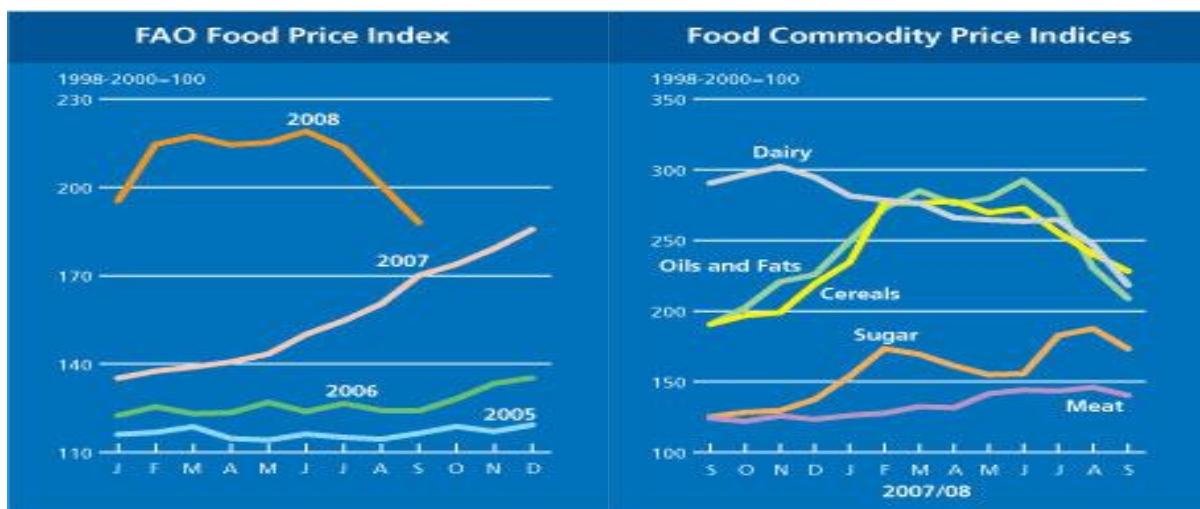
Although the region is not able to control developments in the international market, increasing the supply and variety of local agricultural products will assist greatly in combating the negative effects of high food prices. Some farmers in St Vincent and the Grenadines and the other Windward Islands have diversified into non-banana crops to supply the local and regional market and have taken the initiative to make their own shipping arrangements for sale of bananas and other crops to the region. These initiatives have led to small decreases in the price of local crops.

The dynamic nature of trade does not allow for total dependence on imported food to ensure food security. A larger portion of the need for food and nutrition should be provided locally or regionally and

governments need to collaborate on policy efforts to ensure same. Large investments in the agriculture sector are paramount if food security goals are to be achieved. The political will to implement some of these policies is necessary. It is widely believed that agriculture is revolving and the developments in the global economy may warrant a move back to basics – backyard gardening. Agriculture needs to be viewed as pivotal when addressing issues like poverty, nutrition, food security and sustainable energy. Consequently agricultural development must be intertwined in the social, economic, political and environmental development of the Caribbean.

## APPENDICES

### Appendix 1: FAO Food Price Index – 2005-2008



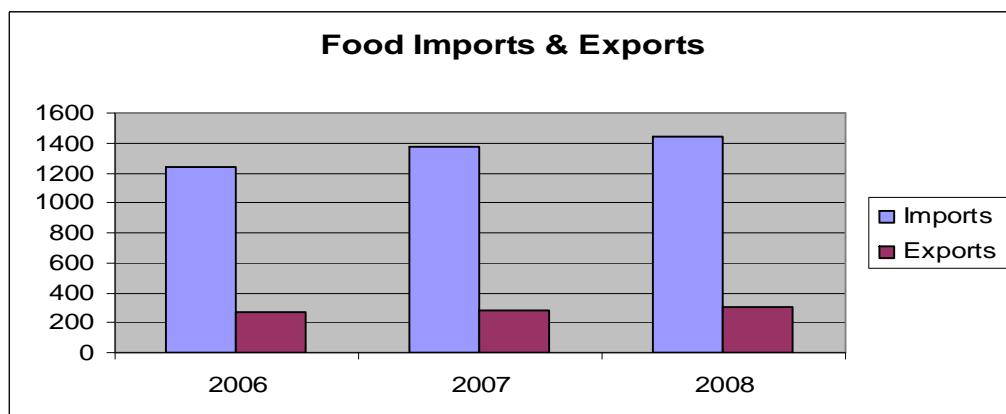
Source: [fao.org/worldfoodsituation/FoodPricesIndex](http://fao.org/worldfoodsituation/FoodPricesIndex)

## Appendix 2: Average Price of Some Selected Items in the ECCU

ECCU – Average Price of Selected Commodities					Price Change	
August	2005	2006	2007	2008	2005/2008	2007/2008
Milk (eva)	2.32	2.34	2.42	2.86	23.57	18.15
Sugar	1.10	1.44	1.44	1.44	30.76	-0.09
Flour	7.03	6.61	6.11	9.78	39.17	<b>60.10</b>
Oil (veg)	14.38	14.45	14.04	18.44	28.22	31.39
Rice	7.16	6.90	7.61	11.92	66.54	56.64
Chicken	16.09	18.22	17.31	21.60	34.22	24.78
Gasolene	8.65	11.13	11.90	14.72	70.07	23.62
Cereal	13.26	11.16	12.24	14.01	5.66	14.46

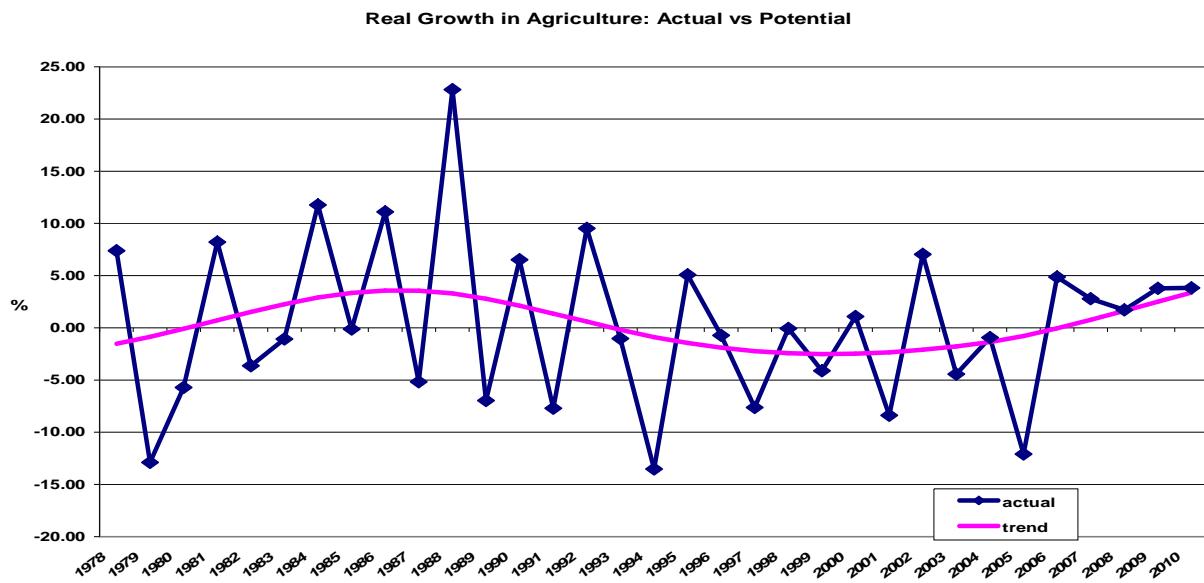
Source: Statistics Department – ECCB

## Appendix 3: Food Imports and Exports in the ECCU – 2006-2008



Source: Statistics Department – ECCB

## **Appendix 4: ECCU - Output Gap (Agriculture)**



Source: Statistics Department - ECCB

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