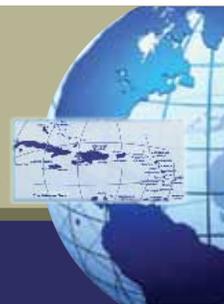




IMPROVING LIVES THROUGH
AGRICULTURAL RESEARCH

HQ/001/11

Agriculture *in the* News



Issues Affecting Caribbean Agriculture

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Greenhouse Technology – the New Agricultural Model

Jamaica. Ministry of Agriculture and Fisheries

Friday 14 January 2011:

http://www.moa.gov.jm/news/greenhouse_tech_new_agricultural_model.php

Minister of Agriculture & Fisheries, Dr. Christopher Tufton has said that greenhouse technology represents the new agricultural model, one of several approaches being explored by the Ministry.

Dr. Tufton, who was speaking at the opening of a \$30 million hydroponics greenhouse facility at Radical Farm located in Port Maria, St. Mary on Wednesday, January 12, explained that agriculture has become more than just the use of physical strength, hoes, forks and wheel barrows, but one that embraces technology which our farmers should emulate.

See Protected Agriculture: page 8

AGRICULTURE IN THE NEWS is a monthly newsletter which provides a compilation of selected news articles on issues affecting agriculture in the Caribbean region. Articles from Newspapers, Online News Service Agencies, Newsletters and Press Releases are featured.

For copies of documents cited, visit the web address or source of the information provided.



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AGRICULTURAL RESEARCH

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Our Vision

To be the centre of excellence in the Caribbean for the provision and application of research and development in agriculture and rural enhancement.

Our Mission

To contribute to the sustainable economic well being of Caribbean people by the generation and transfer of appropriate technology through research and development within the agricultural value chain.

www.cardi.org

Cassava:

Nigeria gets improved cassava varieties

Crop Biotech Update, 14 January 2011:

<http://www.isaaa.org/kc/cropbiotechupdate/online/default.asp?date=1/14/2011#7209>

Full article:

Four improved cassava varieties (NR 01/0004, CR 41-10, TMS 00/0203, and TMS 01/0040) were released recently by the Nigerian government. TMS 00/0203 and TMS 01/0040 were bred by scientists from Ibadan-based International Institute of Tropical Agriculture (IITA); while NR 01/0004 and CR 41-10 were bred by Umudike-based National Root Crops Research Institute (NRCRI) and the Colombian-based International Center for Tropical Agriculture (CIAT), respectively.

These varieties performed well in terms of yield and pest resistance in on-farm prerelease trials in eight states in the country. The average yield observed was 31 tons per hectare, compared to the 26 t/ha yield of the local varieties. "The release of the varieties is good news for Nigerian farmers in particular and African farmers in general," says Dr. Peter Kulakow, IITA Cassava Breeder.

More on this news can be seen at

http://www.iita.org/news-feature-asset/-/asset_publisher/B3Bm/content/nigeria-gets-improved-cassava-varieties?redirect=%2Fnews.

Cereals & Grain Legumes: Corn

Genome study identifies key maize genes for increased yield

Crop Biotech Update, 14 January 2011:

<http://www.isaaa.org/kc/cropbiotechupdate/online/default.asp?date=1/14/2011#7209>

Full article:

A genome-wide association study on maize was conducted by researchers from the Cornell University, USDA's Agricultural Research Service, and North Carolina State University. They found 1.6 million sites in the maize genome that could differ in every individual.

The study also led them to the genes related to leaf angle, an important trait that enables plants to be planted closer to each other. This trait is responsible for the eight-fold increase in yield of maize since the 1900s. The genetic change in ligule, the initial thick portion of the leaf that attaches to the stalk, caused more upright leaves, thus maintaining access to sunlight in crowded plots.

The genomewide association study helps scientists to predict a trait with 80 percent accuracy.

"This method will allow the intelligent design of maize around the world for high-density planting, higher yields and disease resistance," said Ed Buckler, a USDA-ARS research geneticist in Cornell's Institute for Genomic Diversity and the project leader of the study.

Read the news release at <http://www.news.cornell.edu/stories/Jan11/BucklerLeaf.html>.

Maize beats drought

Spore no.150, December 2010 - January 2011, pp. 7:

http://spore.cta.int/index.php?option=com_content&task=view&lang=en&id=1530&catid=8

<http://spore.cta.int/images/stories/pdf/SE150-web.pdf>

Full article:

Farmers in Uganda's Busia district are rushing to plant a new variety of maize, DK8031. This new hybrid, early maturing variety is proving popular with smallholder producers because of its exceptionally high resistance to drought and its excellent grain quality. "DK weighs heavily and when it goes to market it attracts higher prices compared to other varieties," said Ogama Mourice Juma, a farmer who is growing the new variety.

The downside to DK is that farmers cannot put aside grain at harvest to plant for the following season. "This is a serious shortcoming as farmers have to keep on getting new seeds to plant for the next season. This is not the case with the indigenous varieties," said Ogama.

To help boost production, Belgian development agency VECO-East Africa has launched an input credit scheme to provide loans for farmers planting DK maize. It also offers producers free seeds on the condition that they give back 5% of their profits to the association at harvest time. VECO buys the produce from the farmers and also sources markets for them outside Uganda.

Cereals & Grain Legumes: Rice

Rice sector records highest ever export in 2010 - despite disruption caused by climate change

Ministry of Agriculture Guyana

GINA, Georgetown – 28 December 2010:

<http://www.agriculture.gov.gy/Bulletins/December%202010/Rice%20sector%20records%20highest%20ever%20export%20in%202010.html>

Full article:

The growth and development of the rice industry remains a top priority of government as numerous interventions have been made with the aim of making the industry more productive for maximum benefits to its many producers.

The sector recorded its highest export of 320,000 tonnes with a production of 360,000 for 2010, due to the input of farmers and technical and extension services inclusive of water management by the Agriculture Ministry, despite the disruptions caused by climate change.

This is according to Minister of Agriculture Robert Persaud while addressing media operatives during a year-end-press briefing in the Boardroom of the Ministry's Regent and Vlissengen Roads Office today.

"The rice sector has been one of the more exciting sectors in terms of performance, because at the start of the year we were very fearful about the performance of the rice industry in light of the El Nino condition; but we were able to minimise and ensure that the investments we made in water management gave us value for our money," he said.

As the demand for the commodity increases, due to the shortfall on the world market, requests have been made for Guyana to support other countries apart from Venezuela.

However, Minister Persaud has requested that exports be reduced to ensure that there are adequate quantities to supply the local market.

The Burma Rice Research Station has also been working tirelessly to employ technologies. Two new varieties of rice were released in 2009 (GRDB 9 and 10), while a flood-tolerant variety (flood-resistant rice), a collaborative effort with the International Rice Research Institute (IRRI) will come on stream shortly.

These varieties have already occupied approximately 30 percent of the acreages being sown for the current crop.

“These were done particularly with climate change in mind, to withstand long dry and wet periods. A lot of emphasis was also put in looking at other varieties, so that farmers can benefit,” he added.

The flood resilient rice has been successfully achieved in Asia (India, Bangladesh) and allows rice to survive complete submergence for up to 17 days. The Guyana Rice Development Board (GRDB) has already released 10 blast-resistant varieties, while focus is also being placed on the development of aromatic rice tolerant to salt and disease resilient.

These measures were taken to increase production and productivity and will continue in 2011, with the aim of stimulating greater food security, while increasing food production.

Extension services

To ensure that farmers are better equipped with modern technologies and skills, the Ministry of Agriculture this year conducted approximately 40 field schools to ensure farmers are better equipped with the necessary knowledge to carry out proper agricultural practices to improve productivity. Farmers countrywide are benefiting from the training.

“We were also working with farmers in terms of sensitisation and having outreaches both during El Nino and in anticipation of the end of year rainy season, given some of the projections we had going out very early to farmers and giving them advice on how it is they need to respond to the weather condition,” Minister Persaud added.

Currently there are 66 licensed rice mills in Guyana compared to the 74 inspected by officials of the Agriculture Ministry. However, 8 of the 74 were not granted licence due to falling below complaint standards.

A six-point improved crop management programme was also initiated which is currently ongoing and achieving promising results.

Capacity building

Farmers also benefited from capacity building training programmes during the year, as the Ministry continues to strengthen agriculture practices.

The training ranged from good agricultural practices, crop management, marketing and accounting, planning and record keeping, safe use of chemicals, integrated pest and disease management, aquaculture and fisheries, livestock and water management, post harvest management and phytosanitary standards.

Various members of the Water Users Association (WUAs), were trained on management and administrative skills in the nine pilot study areas, in Regions 3, 4 and 6. This was executed by the GRDB under the Agriculture Support Services Programme.

In addition, to the training, the Ministry of Agriculture offered farm certification and good agricultural practices sessions, while outreach meetings were held, aimed at sensitising farmers on the management of paddy bug, throughout the rice growing regions.

Guyana's rice industry has grown to such an extent that it now rates as the second most important agricultural industry, which enjoys the application of modern technology and years of research and technology transfer.

And during 2011, Government will continue to ensure that all necessary steps are taken in an effort to protect the local rice industry to ensure it remains viable, competitive and is able to secure markets for rice exports.

Pineapple :

Scientists develop pineapple genetic map

Crop Biotech Update, 7 January 2011:

<http://www.isaaa.org/kc/cropbiotechupdate/online/default.asp?date=1/7/2011#7180>

Full article:

Pineapple is the third most produced tropical fruit in the world, next to banana and citrus. However, the [genomics](#) of this crop is not yet established compared to other significant tropical fruits. Thus, Jorge Dias Carlier of the Universidade do Algarve, Portugal, and colleagues constructed the first genetic map of pineapple using the F2 generation of a cross between *A. comosus* var. *comosus* and *A. comosus* var. *bracteatus*. Randomly amplified markers and sequence-specific markers were used on public sequence databases. There were 33 linkage groups with markers inherited from the two parental varieties, four linkage groups with markers only from var. *comosus*, and three linkage groups with markers particularly for var. *bracteatus*. The resulting genetic map includes 492 DNA markers covering about 80% of the entire length of the pineapple genome. This can be used for molecular breeding and genomics studies involving pineapple and its relatives.

The research article is available at <http://www.springerlink.com/content/1m7740w00g1542r7/fulltext.pdf>.

Coconut:

Gov't will spare no effort in revitalising coconut industry - Minister Persaud

Ministry of Agriculture Guyana

GINA, Georgetown – 20 December 2010:

<http://www.agriculture.gov.gy/Bulletins/December%202010/Gov%27t%20will%20spare%20no%20effort%20in%20revitalising%20coconut%20industry.html>

Full article:

The coconut industry, is receiving special attention from the Government, as it seeks to elevate the commodity to one of optimum benefits, in keeping with the Ministry of Agriculture's effort of promoting agriculture diversification, from a market led approach.

Minister of Agriculture Robert Persaud today convened a meeting which saw the input of farmers, stakeholders and investors, to discuss the development of a coconut water processing plant.

A study was completed with assistance from coconut expert Dr. Shivarama Reddy from India, as efforts intensify to have the industry modernised. This will see farmers' needs addressed and cultivation and market bases expanded.

Minister Persaud pointed out that the revitalisation plan will see production in terms of quality enhanced, since the product can be used as a base for others.

This, he said, comes at a time when there is a renewed interest in the coconut industry, by investors hence, the crafting of the plan two years prior to supply the market demand regionally and internationally with coconut and its related product.

“We also recognised in our country that we have a number of coconut estates which were abandoned while the others were not properly kept and so we convened a meeting with some of those owners and others who were interested in different parts of the country and we came up with a plan looking at all areas, from technical assistance to infrastructural works,” he said.

The aim of Government is to have a more diversified coconut industry by sourcing other by-products, rather than reliance on the traditional exporting of nuts and copra.

According to the Agriculture Minister, there was a commonly held myth, particularly in the 70s and 80s that coconut and its by-products contributed to high cholesterol levels, noting that this is one contributing factor for the moving-away from the industry.

“Even amongst ourselves in Guyana we still believe it's bad to be consuming coconut related products particularly the oil that comes from coconut, but we have seen what has happened in terms of global trends and it did not only affect Guyana, but the coconut in Africa and Asia,” he said.

Guyana has since been receiving support from the Food and Agriculture Organisation (FAO) and the Indian Government in making the industry more vibrant and competitive.

To date, the nursery at Hope Estate was restructured while the coconut bottling plant will be completed shortly. Minister Persaud while adding that Government is concerned primarily with the export of coconut-based products; emphasised that focus must be on diversification and development of the industry, with technology playing a key role.

In this regard, the National Agricultural Research Institute (NARI), will be integrally involved in the programme, as well as persons from the private sector, in conjunction with farmers.

Government will be investing \$9M this year in terms of developing appropriate technology; since its main purpose is to improve technology coupled with market opportunities.

“We have also been looking at the various varieties that are suitable and we will continue to pursue that, but there is lot of work to be done and recognise that and it is one that will continue to get support in the context of our diversification plan for the agriculture sector,” he added.

There are currently 24,000 hectares of coconut across the country and according to the Agriculture Minister; more can be done to further expand the industry, which will see government sparing no effort in this regard.

Government has over the years been working to revitalise the industry through workshops, exhibitions and training since its aim is to resuscitate it to such a level that it will also create job opportunities for many. Guyana has been pursuing support from India, and several South American countries to assist in this effort, especially to obtain new varieties.

Small Ruminants:

Embryo transplants breed more cash

Spore no.150, December 2010 - January 2011, pp.8

http://spore.cta.int/index.php?option=com_content&task=view&lang=en&id=1530&catid=8

<http://spore.cta.int/images/stories/pdf/SE150-web.pdf>

Full article:

In Guyana, farmers are using embryo transplant technology to produce more productive sheep. A cross between the indigenous Guyanese Black Belly and the British Texel has resulted in a new breed, dubbed the Texana. The new sheep combines the top quality meat and high output levels of the Texel with the sturdiness and versatility of the Black Belly, which is well adapted to local conditions.

With the help of the UK government and the British Texel Sheep Society, embryos were extracted from Texel sheep and transported to Guyana before being implanted in Guyanese Black Belly ewes. The technology yielded a 70% success rate. Embryo transplants cost far less than moving live animals and the technology offers an effective way of guarding against the transport of diseases and pests.

Farmers in Guyana are impressed with the results. "From one Texel embryo, I got 75 lambs and I am still getting more. There is more meat, it grows faster and gives better quality," said Ronald De Freitas who owns a farm at Badrima, Soesdyke. Said Harold Martin, of Silver Hill, Linden, "I am very pleased. One of my Texana rams weighs over 200 lb (90 kg)."

Cattle:

Jamaican cattle breeds under threat

Serju, C

Jamaica Gleaner, 23 November 2010: <http://jamaica-gleaner.com/gleaner/20101123/lead/lead9.html>

Full article:

FIFTY-EIGHT YEARS after Jamaica's most renowned animal geneticist unveiled the first of four local cattle breeds to the world, there is a well-founded fear that the Jamaica Hope and the other three breeds developed by Dr T.P. Lecky are in danger of extinction.

"It would be (a tragedy) if in my lifetime it happens. I think numerically ... all of them are in danger, the Hope being the worst of them all. I'm very distraught," Dr Karl Wellington told **The Gleaner** and with good reason.

"(Lecky) was my mentor from I started working on [livestock](#) in 1959 and his influence was tremendous. I had an interest in it (cattle [genetics](#)) and he identified that and gave everything that he could to assist me," he disclosed.

Dr [Wellington](#), a well-respected animal geneticist and cattle breeder/farmer, has been steadfast in his efforts over the years to preserve the [Jamaica](#) Hope, Jamaica Black Poll, Jamaica Red Poll and Jamaica Brahman lines, while working with the Ministry of [Agriculture](#). Now long retired, he, along with other private farmers, is still trying to preserve the legacy of the man widely regarded as father of the Jamaican Dairy Industry. Wellington is dismayed at the paucity of fruit borne by these efforts.

Recommendations

"I've been involved in so many recommendations for improvement or retrieval of the situation over the years and nothing seems to be happening," he admitted.

"Based on what has been happening over the years, I don't see much improvement taking place, and that is what disturbs me."

With most of the farmers seriously involved in cattle breeding now advanced in age, Dr Wellington is concerned that the necessary succession to keep the breeds going might not be in place. Pressed as to who was responsible for this sad state of affairs, he said there was default on the part of both government and cattle farmers.

"The farmers for whom he (Lecky) worked so hard are not displaying the amount of interest that one would have expected. They are not registering their animals, not taking part in the breed society activities and they are the ones for whom the breed was developed," the cattle breeder noted.

"The government did its part in the early years but has reduced the amount of inputs and taken the general position that they are not doers but the policy people. You have default on either side," he charged.

While sharing Dr Wellington's concerns, Dr Jasmin Holness - who recently retired as deputy director of research in the Ministry of Agriculture - has called for concerted action to redress the situation. With the Government and large companies being the main breeders of pure-bred cattle, she believes there is too much dependence on the Ministry of Agriculture for breeding bulls especially.

Breeding programmes

"The herd is so small you can run the risk of having a problem in terms of reducing the genetic variability, which is what you need in order to select, expand and develop genetic variability," she warned.

"So the onus is now on other breeders, other private persons to construct their breeding programmes in such a way that they can breed and select replacement animals."

Holness explained that according to the world classification system, any breed with less than 1,000 breeding cows is in danger of extinction, and for this reason the Jamaica Black and Jamaica Hope are the ones at immediate risk.

"The other breeds will get there (danger of extinction) if we are not putting together breeding strategies; if we don't have enough persons or enough in putting together breeding strategies that will conserve the breeds," she said.

Dr Holness went on to point out that for the Jamaica Red Poll and Jamaican Brahman, quite a few breeders are active, while in respect of the Jamaica Black, it's a very small number of animals and not many breeders, before saying, "The Jamaica Hope is the one that is in greatest danger, even though it may have a greater number of breeding animals."

This dire warning from an animal geneticist who spent 33 years working with the Ministry of Agriculture, comes almost six decades after scientists from across the world, politicians from across the region and cattle farmers gathered at Bodles Research Station as Dr Thomas Phillip Lecky unveiled the Jamaica Hope. It was the first cattle breed developed in the Western Hemisphere.

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Greenhouse Technology – the New Agricultural Model

Jamaica. Ministry of Agriculture and Fisheries

Friday 14 January 2011: http://www.moa.gov.jm/news/greenhouse_tech_new_agricultural_model.php

Full article:

Minister of Agriculture & Fisheries, Dr. Christopher Tufton has said that greenhouse technology represents the new agricultural model, one of several approaches being explored by the Ministry.

Dr. Tufton, who was speaking at the opening of a \$30 million hydroponics greenhouse facility at Radical Farm located in Port Maria, St. Mary on Wednesday, January 12, explained that agriculture has become more than just the use of physical strength, hoes, forks and wheel barrows, but one that embraces technology which our farmers should emulate.

Greenhouse technology requires time and energy, but with the right application of international best practices our farmers stand to yield substantial quantities in their crops. If we are able to produce substantial yields on a consistent basis, then we would be on our way to ensuring our own food security, Dr. Tufton said. Minister Tufton noted that the establishment of greenhouses adds to the food chain supporting efforts to increase food production. The Agriculture Minister noted that in recognition of the importance of Greenhouses to the sector, the Ministry established a Greenhouse Unit at its extension arm RADA, which offers training to greenhouse growers.

Meanwhile, Radical Farm which comprises two greenhouses, one approximately 12,000 square feet and the other estimated to be 10,000 square feet, was made in Israel and specially adopted for the tropical climate. At present, salad, grape tomatoes and tomato berries are being produced for the hotel industry and local supermarkets through a fixed contract. The 12,000 square feet house consists of 10 rows of salad, one row of grape and tomato berries respectively, whilst the 10,000 square feet facility has eight rows of salad, two rows of grapes and two rows of berry tomatoes.

The facility which became operational recently had its first test run in March which yielded 3,000 lbs salad and some 100 lbs of grape tomatoes weekly from one row.

In the meantime.... despite the success of the facility, operator of the farm, Ryan Chung, said one of his main challenges to the operation of the Greenhouse is the high cost of utilities such as electricity. "I spend over \$100,000 some months on electricity because it is classified as commercial... I believe that the Government in trying to assist greenhouse farmers should try to acquire cheaper electricity either by helping to reduce electricity costs to farmers or provide grants to fund alternative energy sources," he lamented. Challenges aside, Mr. Chung explained that plans are afoot to introduce to the facility culinary herbs in a bid to maximize space availability.

Currently, colored bell peppers, tomatoes, romaine lettuce, and cucumbers are being cultivated in greenhouses across the island. Greenhouse production ensures superior quantities, uniform crop growth, consistent production, longer lasting harvest periods and higher yields.

Hydroponics crops without soil

Spore no.150, December 2010 - January 2011, pp.20:

http://spore.cta.int/index.php?option=com_content&task=view&lang=en&id=1530&catid=8

<http://spore.cta.int/images/stories/pdf/SE150-web.pdf>

Full article:

Growing plants in nutrient solutions is attracting growing interest in some ACP countries. Hydroponic vegetables are prolific and consistently reliable, and they also need less land and water. But growing soil-less crops comes at a price.

As every school child knows, plants need light, water and soil to grow. Or do they? Pupils in schools as far from each other as Guyana and Zimbabwe are learning that flowers and vegetables can thrive without any soil at all, often producing much healthier plants and bigger yields. Hydroponics (from the Greek words hydro, water, and ponos, labour) is the term given to soil-less cultivation, and it is taking off in a number of ACP countries. The technique, which involves growing plants in water laced with nutrients, or in an inert medium such as gravel or perlite, is particularly well suited to locations where land is scarce or soil is of poor quality. One of the earliest hydroponic systems was set up back in the 1930s to grow vegetables for airline passengers on Wake Island, a rocky atoll in the Pacific Ocean used as a refueling stop.

Crops grown this way – usually plants such as tomatoes, lettuce, cucumbers, herbs and flowers – require a fraction of the space of those grown in the ground. In soil, vegetables grow a large root system to search for food and water. With hydroponics, food and water are fed directly to the roots, enabling plants to spend more energy growing the part above the surface. Because they have smaller roots, plants can be grown much closer together. In general, hydroponic gardens require about 20% of the overall space required of soil gardens for the same output. At some hydroponic plantations in the Caribbean, herb and vegetable plants are stacked on top of each other to make towers, each plant fed by pipes bearing nutrient-rich water.

Small spaces

Hydroponic systems can be highly sophisticated, with computerised nutrient delivery, or far more simple. Beds for crops grown in water can be made from locally available materials such as discarded tyres or plastic containers and soil-less substrates can be made of rice hulls and ground coconut husks. A CTA-funded hydroponics workshop held in Kiribati in 2008 explored the scope for using low-cost organic compost made from seaweed, copra mill and fish waste.

Given the use it makes of small spaces, hydroponic cultivation is especially suited to urban and peri-urban settings, with plots on roof-top gardens, balconies and in back yards. One of the chief merits of soil-less cultivation is that it produces higher yields. A 1-acre (0.4 ha) hydroponics greenhouse produces the same output as 10 acres (4 ha) of fields, according to one US study. Other advantages include little or no weeding – since plants grow in a near sterile environment – clean conditions for planting and harvesting, no hard labour for ploughing and digging, and optimum use of water, which stays in the system and can be reused.

Consistent supplies

On a commercial scale, hydroponics is often practised inside greenhouses, which regulate temperature, humidity, and carbon dioxide levels to produce the highest levels of growth and productivity. Plants grown this way have another important asset. Consistent production is assured, regardless of outside conditions such as weather. This is proving an important factor for producers in the Caribbean who are now able to guarantee constant supplies of top quality produce to tourist outlets. In Jamaica, farmers have been given training in the technique, and a hydroponic greenhouse farm in Middlesex, St Elizabeth is producing vegetables to supply some of the island's leading hotels. Yields are more than twice those of similar-sized traditional farms. At St Andrew and Manchester, hydroponic greenhouse production is growing tomatoes, lettuce and strawberries.

But in spite of the undoubted benefits, hydroponic cultivation is not without its drawbacks. Systems generally involve high investment and are therefore better suited to higher value crops than those cultivated by many ACP farmers. The process involved is technical, and people involved need to be trained in procedures such as preparing nutrient solutions and maintaining correct acidity levels. Hydroponic units require electricity or some alternative source of energy, as well as additional inputs to maintain optimum temperature. Growing soil-less crops is an interesting technique for those in a position to make the investment in time, cash and expertise. But hydroponics is not for the faint-hearted!

Climate Change

Grenada sets priorities for GEF-5

Official website of Government of Grenada, St. George's, Grenada

Tuesday 21 December 2010: http://www.gov.gd/egov/news/2010/dec10/21_12_10/item_1/grenada_GEF-5.html

Full article:

ST. GEORGE'S, GRENADA, TUESDAY, December 21, 2010: The United Nations Development Programme (UNDP) Office within the Department of Economic and Technical Cooperation of the Ministry of Finance, coordinated and hosted a national workshop on "Identification of National Priorities for the Global Environment Facility - Fifth Cycle (GEF-5) in 2011", from December 16th and 17th 2010 at the Grenada Red Cross Conference Room, Lucas Street, St. George.

In his feature address at the opening of the Workshop, the Minister for Finance, Honourable V. Nazim Burke lauded Grenada's achievements under the GEF Small Grants Program within the last two years. He highlighted the fact that with dynamic leadership and strong commitment, Grenada was able to turn around its performance to become the number one performing country in the programme in the region. Minister Burke also spoke of the unique partnerships among the GEF donor countries and implementing agencies and charged the participants to seize the opportunities being provided under the various Multilateral Environmental Agreements (MEAs) to bring about positive results at the local levels. He said "Our Mantra over the next four years should therefore be PERFORMANCE and RESULTS".

Under the GEF-5, Grenada will be allocated substantially increased grant funding to support the work in the national focal areas of Biodiversity Conservation, Climate Change Mitigation, Land Degradation, and Chemicals and Persistent Organic Pollutants. Such focus should result in enhanced sustainable environmental management in Grenada.

The Workshop brought together 65 participants which included key persons involved in environmental management from the community based organisations (CBOs), non-governmental organisations, private sector entities and Government ministries and departments. They deliberated on the environmental threats and national priorities for Grenada in 2011 and beyond. Presentations were made, by Grenadians involved in the field, on the four (4) focal areas: Mr. Paul Phillip presented on Biodiversity Conservation; Ms. Aria Johnson presented on Climate Change Mitigation; Mr. Augustus Thomas presented on Land Degradation; and Mr. Paul Graham presented on Chemicals and Persistent Organic Pollutants.

The workshop was jointly facilitated by Dr. Reynold Murray- Programme Manager, Energy and the Environment - UNDP (Barbados and the OECS), Mr. Giles Romulus – Sub-Regional Coordinator GEF Small Grants Program UNDP (Barbados and the OECS), and Ms. Tracy Phillips of the UNDP – (Barbados and the OECS).

Op-Ed: Free Markets Can Still Feed the World

Zoellick, Robert B.

as published on the Financial Times online on Wednesday 5 January 2011

<http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0..contentMDK:22802799~pagePK:64257043~piPK:437376~theSitePK:4607.00.html>

Permanent URL for this page: <http://go.worldbank.org/O6RQ701RJ0>

Full article:

Nicolas Sarkozy, France's president, has rightly identified food price volatility as a priority for his country as it chairs the Group of 20 leading economies this year. Figures released on Wednesday by the UN's Food and Agricultural Organisation show that costs for a range of basic commodities have now surpassed their peaks of 2008. With food accounting for a large and volatile share of tight family budgets in the poorest countries, rising prices are re-emerging as a threat to global growth and social stability.

When prices of staples soar, the poor bear the brunt. Without global action, people in poor countries will be deprived of adequate and nutritious food, with tragic consequences for individuals and for the future prosperity of their countries. The G20 should agree to put food first - because food is the essence of life, and because practical action by the G20 could help make a real difference to hundreds of millions of people.

The overarching goal should be to ensure that the most vulnerable people and countries are no longer denied access to nutritious food. The G20 can achieve this, providing we take the following practical and interconnected steps.

Increase public access to information on the quality and quantity of grain stocks. Better information reassures markets and helps calm panic-induced price spikes. Multilateral institutions could help identify ways to improve transparency.

Improve long-range weather forecasting and monitoring, especially in Africa. Accurate long-range weather forecasting is taken for granted by farmers and purchasers in the developed world; in poor countries where yields depend on rainfall, poor crop projections amplify price swings. Better weather forecasting would enable people to plan ahead, and help anticipate needs for assistance. The World Meteorological Organisation and the World Bank are already helping, but more is needed.

Deepen our understanding of the relationship between international prices and local prices in poor countries. Factors such as transport costs, crop types and exchange rates can mean that local prices are delinked from international prices: in Cambodia, rice prices were on a par with international prices in mid-2009, but while local prices have since risen by a quarter, international prices are now 15 per cent lower. Work could target first those commodities and countries most at risk from volatility.

Establish small regional humanitarian reserves in disaster-prone, infrastructure-poor areas. Large stocks can be costly, degrade easily and impede producers. But in places where food crises are likely to recur and transport links are weak such as the Horn of Africa, small, pre-positioned strategic reserves would get food to the hungry fast, probably at lower cost. The World Food Programme (WFP) could manage this system.

Agree on a code of conduct to exempt humanitarian food aid from export bans. Export restrictions make food price volatility worse. Ideally, countries would not impose any export bans; in 2011 they should at least agree that food for humanitarian purposes be allowed to move freely.

Ensure effective social safety nets. It is vital that we protect the most vulnerable populations, such as pregnant and lactating women and children under two. We need to connect agriculture and nutrition, and help countries target those most in need at reasonable cost.

Give countries access to fast-disbursing support as an alternative to export bans or price fixing. To help countries avoid policies that harm their own farmers and neighbours, we need to provide reliable, fast alternatives customised to local needs. The World Bank has created a crisis response window under the International Development Association (IDA), its \$49bn fund for the poorest countries, and launched a rapid-response Food Security Fund, but we could also explore credit lines or loans with repayment suspension and extension during price shocks.

Develop a robust menu of other risk management products. In some cases, the most useful tools might be weather insurance or a rainfall index; in others, it could be a hedge on energy prices to keep transport and input costs low.

Help smallholder farmers become a bigger part of the solution to food security. Eighty-six per cent of staples in poor areas come from local sources, so support for country-led efforts to bolster smallholder agriculture is critical. One concrete step would be for the G20 to help farmers benefit from tenders from humanitarian purchasers such as the WFP. This may require flexibility to allow development benefits such as building local markets to be taken into account in sourcing decisions. South Sudan could offer a timely pilot.

The answer to food price volatility is not to prosecute or block markets, but to use them better. By empowering the poor, the G20 can take practical steps towards ensuring the availability of nutritious food. Mr Sarkozy has shown leadership in putting this issue on the G20 agenda; the G20 must now act to put food first.

The writer is president of the World Bank Group

Agricultural Development

BARBADOS

Dr. Estwick: Food Import Bill Too High

Skeete, A.

BGIS website of Barbados Government Information Service - 18 January 2011

http://www.gisbarbados.gov.bb/index.php?categoryid=13&p2_articleid=5100

Full article:

A senior government official is concerned about Barbados's high food import bill, stressing that every effort will be made to boost local agricultural production.

Minister of Agriculture, Dr. David Estwick, made this point yesterday following a tour of Newcastle, St. John with officials from his ministry and the Barbados Agricultural Development and Marketing Corporation (BADMC).

The aim of the tour was to address some of the chronic problems which have been affecting farmers in the area, including water shortages.

"We have to do something quite urgently to enhance the production of agricultural products in the country. The problem in Barbados is not the demand for agricultural produce whether it is crop or non-crop. The problem is the supply side and the evidence of that would be the 981 million dollars in food that we import every year," Dr. Estwick said.

Citing the example of onions, he noted that Barbados does not produce as much as 20 per cent of the overall annual consumption of the vegetable.

Dr. Estwick therefore, suggested that the Ministry of Agriculture does not only have to provide the infrastructure for farmers to boost their production but work with the educational sector to encourage more young Barbadians to get involved in agriculture.

"We have to pull more young persons into the whole business of production and to be able to demythologise it and to take out of it [this perception] of a hoe and fork mentality. They must see that there are a lot of persons who make a quality living out of agriculture," he remarked.

The Agriculture Minister also revealed that he has been exploring the feasibility of restructuring his Ministry to better serve the needs of its clients.

"We have been having some internal meetings to look at the possibility of how we can restructure the Ministry so that it concentrates on a particular type of responsibility, that is, policy and policy framework, looking at regulations and monitoring capabilities. [We would] separate out of those responsibilities the other type of technical, production and research elements which should not really be in a Ministry per se... so we are going to be looking very quickly at how we can get those mechanisms put in place to enhance the production of the agriculture sector," Dr. Estwick pointed out.

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GUYANA

Government committed to pushing agri. modernisation in 2010

Haag-Tularam, E

A GINA feature by Erika Haag-Tularam

Ministry of Agriculture Guyana:

<http://www.agriculture.gov.gy/Bulletins/December%202010/Government%20committed%20to%20pushing%20agri.%20modernisation%20in%202010.html>

Full article:

The traditional sectors have over the years been the backbone of Guyana's economy, hence, the PPP/C Administration's efforts to fulfill its goal of diversifying the non-traditional sectors, to give its stakeholders better chances of increasing their investment returns.

Crafted on a budgetary allocation of \$8B for 2010, Government's efforts to promote the expansion and development of non-traditional sub sectors have been boosted as major successes have been achieved.

These in turn, ensured that food security was maintained to cater for the needs of both the population and to supply increasing market demands of CARICOM and further afield.

Advancements

While the economies of the developed countries have been impacted by the raging global economic downturn, inclusive of rising food prices, the local sector has been able to advance with a growth rate of 1.3 percent, with positive indications in rice, livestock and other crops sub-sector.

Significant investments continued to be made to ensure that advanced technologies were implemented within the agricultural sector.

Agriculture Diversification

The Government remains committed to implementing a successful agriculture diversification strategy which focuses on the promotion of non-traditional agriculture crop and livestock activities which have potential for expansion and increased contribution to the national economy.

In keeping with its aim to diversify its agricultural products and increase the level of production, 2010 saw farmers reaping benefits from the US\$6.9M Rural Enterprise and Agriculture Development Project (READ) and a US\$22.9M Agriculture Export Diversification Programme (ADP), which was implemented.

The project funded by the Inter-American Development Bank (IDB), and the Government of Guyana, has since paved the way for the construction of a germoplasm laboratory, seed facilities countrywide, genetic bank to support the Guyana Livestock Development Authority (GLDA) and the visionary rice and bean project in Region Nine.

Its contribution also has helped to build the capacity of small farmers and to encourage them to get more involved in diversification and livestock rearing.

The rice and bean project at Moco Moco is done on a large scale utilizing savannah lands and dealing specifically with legumes such as bora and black eye. It was initiated in memory of the late Minister within the Ministry of Education Dr. Desrey Fox.

The Caribbean currently expends \$3.5B annually on food importation and will continue to climb if there is no seriousness about agriculture in the region, as such, measures continue to be implemented which are aimed at further developing new areas for cultivation.

To this end, a \$3M farmers' market was commissioned at West Watooka in October, by Minister of Agriculture Robert Persaud. The facility can also be used as a point for persons enroute to the interior to purchase their produce in wholesale quantities.

This initiative was also complemented with the addition of several cold storage trucks to aid in the export of local produce.

Climate change

One of the focal issues in agriculture is climate change, and cognizant of its effects, Minister Persaud has been instrumental in ensuring that farming communities adapt to dealing with its effects.

The existence of food security directly influences growth and progress of all sectors within an economy, and in recognition of this, the visionary 'Grow More Food' campaign, an initiative aimed at boosting food and livelihood security, enabled farmers to have direct access to market opportunities at competitive prices.

A climate smart workshop to ensure that society adopts methods of mitigating the phenomena was also instigated as another method of attaining food security. The forum which was held under the theme, "Adapting to Climate Change Towards Climate Smart Agriculture in Guyana" addressed major issues, challenges and opportunities.

Climate change impacts negatively on the availability, stability, access and utilization of food security and according to Minister Persaud, this is indeed a factor that has contributed to food shortage in many countries.

"Food security is the most vulnerable and as such, it is important that we (Government) put continued priority to ensure that the right policies can be developed; hence the reason for pushing for climate smart agriculture," he stated.

Aquaculture

As part of Government's renewed thrust to modernize the agriculture sector more emphasis is being placed on sustaining the aquaculture sector since it is being recognised as one with tremendous potential.

This new and emerging sub-sector has the capacity to become one of the country's leading exporter earner and as such, the practice has been evolving and ample progress has been recorded with farmers in Essequibo, Demerara and Berbice now investing.

In May, the Ministry of Agriculture embarked on a US\$1M aquaculture diversification programme, with the aim of further expanding the industry on a large scale. This has seen \$20M injected through collaboration between the Governments of Guyana and Brazil, for the training of aquaculture farmers countrywide.

The project has proven over the years to be productive, since it is one of the fastest growing food production systems in the world, providing excellent opportunities for employment and income generation, particularly in more economically depressed rural areas.

For this year alone, the Satayadeo Sawh Aquaculture Station at Mon Repos produced in excess of 74,950, fingerlings compared to 20,000 in 2008 and 85,872 for 2009, which has been distributed to farmers countrywide. The semi-commercial hatchery also continues to conduct research to further produce quality fingerlings and brood stock.

Currently, there are approximately 75 aquaculture farms countrywide and as such, the administration has waived the duty and consumption tax on a range of aquaculture equipment, processing equipment and feed.

Livestock

The livestock industry was given prominence this year, with the passing of the Guyana Livestock Development Authority Act. Farmers can now benefit from improved services through the streamlining of crop extension services, plant health and research and, the consolidation of livestock development programmes.

Under the swine multiplication programme, 3,240 units were distributed while improved breeds of cattle, sheep and goats were also multiplied and distributed. To date, the Ministry of Agriculture has distributed 150 breeding rams and pigs each, to farmers from across the country.

Fourteen agronomists and three Veterinarians were added to the system to further boost the operations of the sector.

Rice

The rice industry continued to make a significant contribution to Guyana's economy despite many challenges on local and international markets as, Government's commitment towards ensuring the viability of the rice industry continued to be seen with tangible interventions.

In September, government announced its move to audit all records of the Mahaicony Rice Mill, while a special account was set-up to hold all its proceeds from rice export to Venezuela. It is jointly managed by the Government and the entity's management.

Other than interventions, investments were made, including the construction of a \$174.4M rice seed facility at #56 village, Berbice and the construction of several rice seed facilities countrywide.

September also saw the harvesting of the \$128.6M hinterland rice and beans project at Moco Moco, Region Nine. The Government continues to export rice large quantity of rice and paddy to its Spanish speaking neighbour, Venezuela.

Sugar

2010, was a productive year for the Guyana Sugar Corporation (GuySuCo), as it relates to the turn around plan, as the corporation was able to cut cost by \$2B

However, as a result of several week long industrial actions by workers coupled with the severe effects of La Nina and El Nino, GuySuCo, was unable to reach its revised project target of 264,000 tonnes of sugar by the end of 2010.

It is anticipated that, Government in 2011, the Government will overcome the challenges currently being confronted and emerge with a sugar industry that is efficient and competitive, and equipped to convert opportunities that are emerging from developments in the global and regional marketplace.

Drainage and Irrigation

Good drainage is an essential ingredient in ensuring that favourable development takes place. As such, the administration continues to work assiduously to ensure that this is maintained.

To this end, \$800M has been injected for the commencement of work on the Hope Canal while, \$324.9M was spent for the construction of a sluice at De Willem, and a pump station at Greenfield.

Two separate contracts of \$875M were also signed for the rehabilitation of the Black Bush Polder Scheme and additional D&I structures in Regions 3, 4 and 6.

In addition, the Ministry of Agriculture embarked on a land clearing exercise in March, to ensure that more lands are available for cultivation. Agriculture lease lands were also extended from 20 to 50 years.

The forestry sector received significant attention this year as it relates to forest practices. As Guyana continues in its drive to mitigate the effects of climate change, a code of practice for timber harvesting and non timber forest products was reviewed.

A US\$700,000 avoided deforestation agreement was inked while the Agriculture Minister also commissioned a \$20M kiln drying facility at Crabwood Creek, Berbice and another at land of plenty in Region Two.

JAMAICA

Agriculture continued to grow in 2010

Wright, D

Jamaica Observer Wednesday 5 January 2011:

http://www.jamaicaobserver.com/news/Agriculture-continued-to-grow-in-2010_8270169#ixzz1Ab4xrZnX

Full article:

KINGSTON, Jamaica (JIS) — Agriculture continued to be a key area of growth in Jamaica's economy in 2010, with an overall increase in output, as well as the introduction of several initiatives designed to thrust the sector forward.

The renewed focus on food security carried through to the end of the year, with farmers embracing new technologies, such as greenhouse farming; new farming practices and the expertise offered by the Ministry of Agriculture and Fisheries to improve their yields.

Production figures reported in September showed a 5.8 per cent increase for the July to September quarter, when compared with the corresponding period for 2009, with domestic food crop production up by 13.5 per cent. The figure was also a 16 per cent increase over the April to June quarter, which was plagued by severe drought.

Minister of agriculture and fisheries Dr Christopher Tufton commended the farmers, noting that "they are true heroes in all of this".

"They are very resilient and extremely committed to what they do. This particular quarter is traditionally not a high-volume quarter; however, the data suggest that it was one of the most outstanding September quarters that we have had in the country and in the sector in a very long time," he stated.

During 2010, the ministry was also intent on ensuring that as much as possible of Jamaica's arable lands were under production.

The minister lamented that for too long most of the country's arable lands have been unaccounted for and subject to inactivity. He noted that the system of leasing arable lands tended to be ad hoc and left much to the discretion of the lessee. He also stated that too much of Jamaica's arable lands had been transformed into permanent non-agricultural areas.

To correct this, the ministry embarked on a programme to formalise the Agricultural Land Use Policy. The policy will specify how agricultural lands are to be utilised and in the case of government leases, the terms and conditions of leasing arrangements.

As part of this thrust, the ministry also launched the Arable Lands Irrigated and Growing for the Nation Programme in February to put most arable lands with access to water, back into production. Dr Tufton noted that in 2007, only 50 per cent of the 87,000 acres of land with irrigation infrastructure were used for agriculture and declared the situation as unacceptable.

In 2010, the programme targeted putting at least 5,153 acres of previously idle lands back to work.

The multi-faceted approach to improving agricultural productivity also extended to the ministry helping farmers to improve their on-farm water management, and the results were immediately seen in the improved yields in the third quarter of the year.

However, the ministry wanted to achieve an even more sustainable water management system and reached out to the Food and Agriculture Organisation for help to implement a \$20-million rainwater harvesting project on a pilot basis.

The pilot rainwater harvesting project is to be executed in St Elizabeth and will involve constructing rainwater harvesting solutions on specific farms. Additionally, the ministry is working with the Jamaica Bauxite Institute and the bauxite companies to explore the use of mined out bauxite lands as catchment areas and reservoirs.

Following up on the ministry's plans to improve the country's post-harvest infrastructure, Dr Tufton opened a yam packaging facility at Wait-A-Bit, South Trelawny, on February 22. The facility serves as a collection point for yam produced in Trelawny and neighbouring areas, to be sorted, graded and packaged for the local and export markets.

Meanwhile, in September the ministry signed a lease agreement with GraceKennedy Limited for the company to operate an 8,800-square foot post-harvest and packaging facility at Hounslow in St Elizabeth. The \$49-million Hounslow packaging house was constructed under the Improving Jamaica's Agricultural Productivity Project, a collaboration of the Canadian International Development Agency and the Government.

During the year, equipment valued at some \$50 million was made available to farmers, as part of measures to kick-start the mechanisation process within the agricultural sector.

The equipment, funded by the United States Agency for International Development and the European Union, included laptop computers, bush cutters, generators, mist sprayers and water pumps.

In July, the ministry also received machinery valued at \$60.4 million from the Government of the People's Republic of China in a bid to increase rice production in the island. The equipment included harvesters, drying machines, seedling transplanters, tractors, harrows, ploughs and trucks.

Currently, Jamaica imports all of the 100,000 tonnes of rice consumed annually, and Dr Tufton is aiming for the country to produce at least 20 per cent of Jamaica's rice consumption needs.

The ginger resuscitation project was also launched by the minister in 2010. It aims to boost production of the crop for the local and overseas markets, and address the rhizome rot disease that has been plaguing the industry since the mid-1990s.

Speaking at the launch, held at the Bodles Research Station in St Catherine, Tufton said that there was "considerable" global appeal for "superior quality" Jamaican ginger, and the intent is to increase yields to meet export demand and develop the value-added side of the product. Some 31,500 square feet of greenhouse space with 4,200 tissue culture plantlets will be provided to yield at least 336,000 disease-free seeds per crop cycle.

The three-year project is being undertaken in collaboration with the Christiana Potato Growers Co-operative Association with \$12.4 million allocated for the first year.

The ministry also gave attention to the dairy, banana, sugar and cocoa sectors, which were in decline. For sugar, the Government entered a second pre-financing agreement for the 2010-2011 and 2011-2012 crop years.

Under the arrangement, Tate and Lyle of Britain will provide US\$26 million and US\$20 million in partial pre-financing for the next two crop years, in exchange for 100,000 tonnes of raw sugar per annum. The Government, in collaboration with the European Union, is providing support to rehabilitate about 3,000 hectares of Cocoa, to install cocoa drying infrastructure on farms, to develop new varieties and to strengthen the farmer organisations in the sector.

In addition to technical and infrastructural support, the ministry also sought to provide farmers with the necessary financial support they needed to sustain their businesses.

The Financial Access for Responsible Members Programme, launched in 2009, started making a significant impact in 2010. The programme was designed to link approved financial institutions to committed farmers, middlemen and input suppliers by promoting best practices and limiting the need for farmers to provide traditional forms of collateral. The crops targeted under the programme include Irish potato, hot pepper, onion and sorrel.

At the end of November, the ministry launched a \$50-million Glut Management Fund, geared at purchasing fresh produce in bulk for storage when there is an overabundance. The initiative, which provides a revolving loan scheme to agro-processors and suppliers at a single-digit interest rate, is funded by the Development Bank of Jamaica and administered through the ministry's Agro-Investment Corporation.

"Agro processors frequently experience shortages of raw material during low production periods, but because of working capital constraints, they have, in most instances, been unable to purchase additional quantities for storage when supplies are abundant; as such the programme is geared at addressing this problem," Dr Tufton said.

He said the fund will provide another solution to the challenges the sector faces, by creating greater efficiencies for storage of crops, providing an income to farmers and continuous supply of produce to processors. In 2009, post-harvest losses amounted to some \$5 billion.

The sector was not without its challenges, with unpredictable weather and praedial larceny being the leading headaches. Production was significantly affected in the first two quarters of 2010, with drought conditions persisting for months, causing late planting and reaping as well as crop loss.

In October, the farming sector also recorded significant losses as a result of rains associated with Tropical Storm Nicole. Dr Tufton noted that the sector was set back a little over \$1 billion, as a result of loss of livestock and crops as well as damage to farm roads and other infrastructure.

However, the ministry quickly began work to get farmers back into normal production by providing seeds, re-establishing plant nurseries, repairing greenhouses, and providing information. The ministry also helped with road clearance and land preparation at a subsidised cost.

National Budgets – Agriculture

ANTIGUA AND BARBUDA

2011 Budget Statement. by the Hon. Harold Lovell Minister of Finance, the Economy and Public Administration, Antigua and Barbuda on 20 December 2010

Government of Antigua and Barbuda website: http://ab.gov.ag/gov_v4/pdf/budget_speech_2011.pdf

EXCERPTS

*ECONOMIC ACTION PLAN
PP.54-56 AGRICULTURE*

Agriculture

Madam Speaker, the importance of agriculture to the national economy cannot be overstated. Although the statistics indicate that its contribution to GDP is 3.5 percent, there are related activities which add value to its primary products and account for considerable spinoffs in earnings. It is estimated that agriculture provides a source of livelihood, employment and home based income for about 10,700 persons, including 3,500 crop and livestock farmers. For some time we have expressed a desire to see agriculture regain its rightful place among the productive sectors with its percentage contribution to GDP increasing to between 10.0 and 15.0 percent.

I submit to this Honourable House that this process will intensify in 2011. In a number of other Caribbean countries a large percentage of the food consumed is produced locally. There is no reason why we cannot move in the same direction in Antigua and Barbuda. This country has its roots tilling the soil and will pursue in earnest expansion in agriculture as a part of an effective economic diversification initiative. The overall objective of this expansion will be to improve food security, build linkages with the tourism sector and exploit the comparative advantage in the production of selected crops including onions and carrots.

In 2007 Antigua and Barbuda imported 16.1 million pounds of fresh tropical vegetables, fruits and root crops valued at \$45.1 million. The Ministry of Agriculture responded to this situation by implementing phase 1 of the National Food Plan in order to reduce the level of imports and curtail the high price of fresh produce. In 2008 and 2009 this effort increased local production from 4.5 to 6 million pounds of fresh vegetables. In addition, an estimated 4 million pounds of fruit and root crops were harvested, bringing total local production to 10 million pounds at a value of \$28 million.

Notwithstanding this major positive development in the sector, data on the import of fresh agricultural crops suggest that the potential exists to increase local crop production to a level that could generate an additional \$20 to \$30 million in income for producers, based solely on local demand. In 2011 we will further increase domestic production to satisfy this demand. It is also the intention of the ministry to undertake the export of carrots and onions to Dominica, St. Lucia, Trinidad and Guyana and Venezuela.

Preliminary discussions have been held with the respective marketing agencies and a team will travel to these five countries to meet with importers. In 2011 a pilot export effort will target 200,000 pounds of onions which will increase by 1 million pounds annually from 2012 to 2016.

The government is also exploring a bilateral arrangement with Venezuela in which we will receive a discount on the purchase of petroleum products in proportion to the value of agricultural exports to that country. Under the arrangement the money we save will go directly to producers who participate in the initiative.

Madam Speaker you may ask, how will this increase in crop production be achieved? Do we have a plan? Are we putting the necessary mechanism in place to support farmers? In 2011 we will begin to develop a national youth farm. The Farm will comprise 100 acres of land to provide training and employment for Antigua and Barbuda's future farmers. The overall cost to establish the farm and to provide the relevant training and employment for 250 young people over a three year period is \$6.0 million. The projected revenue to be generated from this investment after three years is \$6.6 million.

The project will be implemented in three phases. Phase 1, which will be implemented in 2011, will require the recruitment of 3 technicians and 80 youth to begin training in modern crop production on 40 acres of land. The total cost for this phase is \$2.3 million. The projected return after one year is \$800,000. Phase 2 will be implemented in 2012 and will bring an additional 40 acres of land under crop production, with another 80 youth recruited. Phase 3 is to be implemented in 2013 when 20 acres will be established in crops and 40 youth recruited.

It is projected that after three years the farm should be self sustaining and after the second year the first batch of recruits will exit the program to be absorbed into the agriculture sector as farmers or skilled agricultural workers. After the third year the program would have prepared 160 trained personnel for absorption into the agricultural sector.

This state farm initiative will support an ongoing project in the agricultural industry – Project 40:20. Under this project the Ministry of Agriculture has indentified 40 acres of land in Pares which have been subdivided into one and two-acre plots. The idea is to have at least 20 farmers cultivating these plots with specific crops to satisfy the local market and begin the aforementioned export initiative. Project 40:20 and the first phase of the national youth farm will be located in the same area to reduce the cost of infrastructure, ploughing and harvesting. It also allows for more efficient use of the water harvesting technology that has been developed here in Antigua. We have had preliminary discussions with the CDB for technical support and financing for these two initiatives. We intend to continue to engage them very early in 2011 with a view to finalising an arrangement.

With respect to livestock production, in 2008 we consumed 16.1 million pounds of imported meat valued at \$64.1 million, compared with less than 1 million pounds of domestically produced meat valued at \$4.9 million. In particular, chicken production accounted for less than 1.0 percent of the 13.6 million pounds consumed. This data suggest that there is significant scope for livestock production in Antigua and Barbuda.

Madam Speaker, one of the most interesting and exciting agricultural projects being developed is a proposal by a current broiler chicken producer to import the technology used in South America to significantly transform the method of producing broilers and increase domestic production. The overall project has five stages (1) breeder farm facility, (2) hatchery facility, (3) broiler farm facility, (4) feed mill and (5) broiler processing plant. Operating at the maximum capacity the project has the potential to produce approximately 150 million pounds of chicken per year and provide approximately 1000 new jobs.

Given the scale of this project and the level of success when it was implemented in other countries, we believe that within five years Antigua and Barbuda can be self-sufficient in broiler chicken production. The Government has supported this project by providing land in different locations to facilitate each phase and we will continue to lend support by providing the necessary incentives.

GRENADA

2011 Budget statement presented by Hon V. Nazim Burke Minister of Finance, Planning, Economy, Energy and Cooperatives, Grenada to the House of Representatives, 14 January 2011

Official website of the Government of Grenada:

http://www.gov.gd/egov/news/2011/january/18_01_11/item_2/budget_2011.pdf

EXCERPTS

SELECTED GOVERNMENT ACHIEVEMENTS IN 2010

pp. 23- 24 Revitalising Agriculture and Fisheries

- Propagated and distributed over 200,000 plantlets including 43,078 cocoa plantlets, 12,000 fruits and 50,000 nutmegs.
- Employed 1,000 persons under the Farm Labour Support programme, a total of 201.8 acres of tree crops were established:
 - 141.2 acres of nutmeg
 - 30.5 acres of sour sop
 - 8.5 acres of mangoes
 - 2 acres of cherries
 - 2.25 acres of cinnamon
 - 6 acres of avocados
 - 10.6 acres of bananas
- Opened 398,673 feet of drains on approximately 1,075 acres of land primarily cocoa fields.
- Rehabilitated 27.75 miles of farm roads including clearing of overhangings, base work, slide removal, drainage and clearing of culverts.
- Distributed 3,225 bags of fertilizers to farmers at a subsidized price of EC\$75.
- Established 50 acres of Nutmegs, 14.5 acres of Tree Crops (including cocoa, breadfruit, bananas, avocados, mangoes and soursop).
- Planted 6 acres of pigeon peas and 3 1/2 acres of root crops (including cassava, yam and ginger).
- Established Cassava Experimental Plots with 11 different varieties at Laura Estate.
- Launched two (2) Marine Protected Areas sites (Molinere/Beausejour MPA & the Oyster Bed in Carriacou).

pp.39-40 The 2011 Estimates of Revenue and Expenditure

The 2011 Estimates of Expenditure provides for total expenditure of \$783.4 million, an increase of 15.3 per cent over the previous year

The eight largest allocations are for:

Page 40 *2011 Budget Statement*

Public Debt – \$188.3 million (or 24.1%)

Ministry of Education and Human Resources - \$115.7 million (or 14.8%)

Ministry of Finance - \$79.0 million (or 10.1%)

Ministry of Health - \$63.6 million (or 8.1%)

Police - \$46.9 million (or 6.0%)

Ministry of Agriculture - \$40.5 million (or 5.2%)

Ministry of Works - \$33.4 million (or 4.3%)

Ministry of Tourism - \$31.6 million (or 4.0%)

pp.41-42 : 5.2 AGRIBUSINESS

Mr. Speaker, over the past two and half years, agribusiness has been a bright spot in the Grenadian economy. That said, much more needs to be done.

Government's main focus, this year, will be:

1. **Significantly increased provision of planting materials to facilitate increased food production and agricultural exports.** There is a growing demand for planting material as confidence in the sector grows. The Ministry of Agriculture will aim to increase its capacity to deliver larger volumes of high quality planting materials. Special focus will be given to planting materials and other inputs for bananas with the aim of ultimately eliminating the importation of bananas into this Country.
2. **Increased production in root crops, especially yams, dasheen, tannia, sweet potato and cassava by targeted programme for select farmers.** Over the past year, we have witnessed an increase in the importation of root crops contributing to significant foreign exchange leakage.
3. **Increased acreage in fruit orchards namely: Julie mango, golden apple, soursop, avocado and breadfruit.** With the increase of agroprocessing activity and increased demand for fresh tropical fruits on

the export market, there is an urgent need to establish more fruit orchards on the island. Farmers with large tracts of 'idle lands' will be targeted to increase acreages under fruit production.

4. **Improved marketability of fish products on the domestic and export markets.** Under this programme, the Ministry will focus on improving our fisherfolks' capacity to handle fish for the export market. The capacity of the Produce Chemist Laboratory would also be enhanced to contribute to improved quality of our fish products.
5. **More support for agro-processing.** This would involve the strengthening of capacity in the Produce Chemist Laboratory to enhance the delivery of technical services to agro-processors.
6. **More research and development in nutmeg and other spices.** Increased support will be given to the Establishment of Spice Research and Farming Systems Project to increase the competitiveness of the Nutmeg and Spices Industry.
7. **Institutional Strengthening.** The Ministry will seek to restructure and strengthen its extension services in order to deliver better services to farmers.
8. **Labour support.** Resources under the Farm Labour Support Programme will be used to provide labour for the priorities just mentioned.
9. **Government Estates.** A framework will be finalized to facilitate the deployment of these estates into more commercial and productive farms.
10. **Completion of the Gouyave Fisheries Plant.** Work is ongoing and is expected to be completed by year end. This year, the allocation for agribusiness and fisheries is \$28.5 million up from \$17.8 million in the previous year.

International Relations:

ACP and EU exchange views on EU's Green Paper

CTA Brussels Newsletter # 256, Friday 21 January 2011:

http://brussels.cta.int/index.php?option=com_k2&id=5149:acp-and-eu-exchange-views-on-eus-green-paper-&view=item&Itemid=54

Full article:

The ACP Committee of Ambassadors and the European Commission exchanged views on EU's Green Paper on the Future of Budget Support to Third Countries. In a special meeting held on 11 January 2011, members of the ACP Committee of Ambassadors were given the opportunity to express their opinions on the Green Paper and sought clarification on certain parts of the paper from the Commission. The purpose of the Green Paper is to gather views from stakeholders regarding the objectives and use of EU budget support, building on the joint experience of the last ten years, while recognising differences in the context and nature of EU cooperation which different regions and countries. Meanwhile, the specific objectives of the Green Paper are to identify opportunities and challenges, to raise specific questions on how these opportunities can be exploited and challenges addressed, to collect views and evidence that will improve EU's support to budget support. ACP states are major recipients of EU budget support. The Commission also presented the Millennium Development Goal (MDG) Initiatives, which is a proposal under the 10th EDF. The meeting was chaired by the Chairman of the ACP Committee of Ambassadors and Ambassador of Guyana, H.E Mr. Patrick I. Gomes.

Source: ACP Secretariat

Belize to receive over BZ\$62 million for rural development and sugar

CTA Brussels Newsletter #254, Friday 07 January 2011:

http://brussels.cta.int/index.php?option=com_k2&id=5121:belize-to-receive-over-bz62-million-for-rural-development-and-sugar-&view=item&Itemid=54

Full article:

The government of Belize will benefit from grants valued at close to 24.9 million euros or BZ\$62.3 million to assist with projects geared towards rural development, poverty reduction and the sugar sector. Three financing agreements were signed by Prime Minister of Belize Dean Barrow and Head of the Delegation of the European Commission to Jamaica, Belize, The Bahamas, Turks and Caicos Islands, and the Cayman Islands, Ambassador-Marco Mazzocchi Elemanni. The agreements include the 10th European Development Fund (EDF) for 11.8 million euros or BZ\$29.5 million for the period 2010-2015, which has been earmarked for the Belize Rural Development Programme Phase II (BRDP II). The EU will contribute BZ\$25 million, the government of Belize BZ\$2.5 million and the final beneficiaries BZ\$1.8 million. The overall objective of the BRDP II is to promote broad-based rural economic growth and reduce the incidence of poverty in the rural communities of Belize. BRDP II will be implemented countrywide using grant contracts through which NGOs, ministries departments or agents can qualify through a competitive process.

Source: Caribbean News Now

Agricultural Institutions

CARDI's Open Day Highlight Techniques' To Improve Food Security

Antigua and Barbuda. Ministry of Agriculture, Lands, Housing & The Environment, 20 December 2010:

<http://agricultureantiguabarbuda.com/news/cardi%e2%80%99s-open-day-highlight-techniques%e2%80%99-to-improve-food-security/>

Full article:

December 19, 2010In an effort to continue the sustainable development of the agricultural sector supporting, food security and import substitution, the Caribbean Agriculture Research Institute (CARDI), in conjunction with the Ministry of Agriculture, Lands, Housing & the Environment (MALHE), have advanced experiment on sweet potato varietal commodity to determine maximum yield.

Dr. Gregory Robin, CARDI's OECS Technical Coordinator, told officials during an open day held December 17; the sweet potatoes experiment was part of a medium term implementation plan for the periods 2008 -2010. This, he said, was to bolster and introduce new technologies to sustain the ministry's mandate to achieve food and nutrition security.

According to Dr. Robin, experiments were conducted to examine ten (10) varieties of the sweet potatoes crops that are grown in Antigua & Barbuda. The OECS technical co-ordinator noted farmers and technicians from MALHE observed the performance of sweet potatoes with the application of irrigation versus non irrigation during four quarterly planting seasons per annum. The open day, which took the format of field tours to Green Castle and Cades Bay Agricultural Station, commenced at the Ministry of Agriculture headquarters on Independence Drive and concluded at CARDI's Office at Betty's Hope with a short station tour and a closing ceremony.

Among the individuals joining CARDI's technical team at the annual open-day were Minister of

Agriculture, Lands, Housing & the Environment Hon. Hilson Baptiste, Permanent Secretary Sharon Peters, Acting Director of Agriculture Jedidiah Maxime and other heads of department in the MALHE.

Also, participating in the field tours were students and agriculture science teachers, farmers and extension officers.

Dr. Robin, revealed that the potato trials were launched in three zones, Green Castle, Cades Bay and Betty's Hope with a view to ascertain the agro-climatic parameters in each area. Dr. Robins said, the trial in various locations were to discover how agro-ecological indicators of annual rainfall, rainfall pattern, soil type, vegetation, temperature and soil characteristics would affect the yield of the potatoes.

Meanwhile, Delvin Bachelor, CARDI's technical officer listed among the trial varietal crop commodities Hurricane, Catch Me, Fine Num, Tremont, Mandela, White Drill, King Crown, 1987 and CRO2.

Bachelor, in giving an analysis of the yield in the trial zones explained they were replicated at each sites four times in blocks.

According to Bachelor, the data collected from the tuber assessed were focused on achieving marketable yield, taking into consideration their size, weight and incidences of pest or diseases.

Bradbury Browne, another technician at CARDI, who recently received an award in Trinidad for the best technician in the region, also added that the experiment validated Green Castle location with high marketable yields for the varieties Catch Me and Hurricane. At Betty's Hope, Browne said, however, they were puzzled at results received for the periods April-July, as the plantings borne, no yield.

Meanwhile, at Cades Bay, he said, Catch Me and Fine Num reported the highest marketable yield. Officials also, visited the proposed field for onion import substitution; this is supported by the MALHE and the Agriculture Development Corporation (ADC). The Cades Bay pineapple station was also included in the spotlight.

Station Manager, Irose Henry explained close to 36 acres of various pineapples' Varieties are under cultivation. Among them are smooth Cayenne and Crab pine or sugar.

According to Henry, the station is striving to produce the crop on year-round. She explained these varieties were planted at 6-month's intervals respectively on four acres. She disclosed further that each acre required 17,000 slips to be fully planted.

Henry said, to this end, the station has been using the deflowering technique to increase the slips generation, and so far, the method has proved successful.

To this end, approximately 100,000 slips have been supplied to the Norwegian Pineapple Project.

Detailed of the development of the seedling banks were also revealed, Dr. Robin said, research is continuing to maintain the supply of quality hot pepper seeds locally, regionally and internationally.

According to Dr. Robins, the demand for seeds has increased, which Jamaica, being its biggest exporter.

The Permanent Secretary, in the MALHE, thanked the CARDI's team for the opportunity to view first-hand the techniques being used to improve food and nutrition security and bridge the food importation gaps.

“The baby is born!”: CTA’s Executive Board approves CTA’s 2011-2015 Strategic Plan

The Technical Centre for Agricultural and Rural Cooperation (CTA):

<http://www.cta.int/en/About-us/CTA-news/The-baby-is-born!>

Full article:

Mr Edwin Vos, Chairman of CTA’s Executive Board (EB) was proud to announce that the EB has approved the 2011-2015 Strategic Plan during its 9-10 December meeting in Wageningen, the Netherlands. The plan has benefited from contributions by a number of stakeholders as well as from CTA staff.

CTA will now develop an implementation plan for consideration by the EB at its meeting in February 2011 that will make the strategy a reality. Mr Vos commented that the new Strategic Plan offered CTA “a golden opportunity to improve its performance”. CTA Director Michael Hailu thanked the EB and the staff for their support in the preparation of the Strategic Plan. CTA also produced a small video as a means to document the strategy development process.

Upcoming Events

FEBRUARY 2011

Development of agricultural systems and climate smart agriculture in developing countries - Workshop

FAO, ICROFS, CCAFS, Aarhus University and University of Copenhagen

23 February 2011 - 25 February 2011

Denmark

Description: The workshop will discuss challenges and opportunities for more efficient agriculture in the long term, contributing to thinking beyond Cancun and The Hague. It will also explore synergies between adaptation, mitigation and biodiversity to respond to competing pressures on land and water from agriculture, forests and other ecosystems, growing population and urban expansion, as well as energy needs. The focus will be on analysis of opportunities and constraints of agriculture-environment nexuses; this should consider climate change adaptation, efficient management of inputs (including nutrient, land and water management); waste management, development of low carbon agriculture and farming with an ecosystem approach.

<http://www.fao.org/climatechange/en/>

JULY 2011

Caribbean Food Crops Society (CFCS) 47th Meeting

3-9 July 2011

Barbados

47th Meeting of the Caribbean Food Crops Society (CFCS) and the Government of Barbados, within the framework of the Year of Climate Change, are pleased to invite you to participate in this meeting which will take place from the July 3 to 9, 2011 at the Lloyd Erskine Sandiford Conference Centre, Two Mile Hill, St. Michael, Barbados.

The main objective will be to share information on the topic “Assuring Caribbean Food and Nutrition Security in the context of Climate Change”.

The meeting will also be an opportunity for interested persons to present videos, exhibit posters and deliver papers. The criteria for submission of videos, posters and papers may be obtained from:

- Cfcs2011Barbados.org
- telephone 246-434-5031 or 246-434-5020

The Scientific Committee will decide eligibility for these submissions upon review of the abstract or summary (maximum 350 words). The criteria for abstracts/summaries are available at the website.

The deadline for receipt of abstracts/summaries is January 31, 2011.

Please send to: chair47cfcssc@minagriculture.gov.bb.

For further details please visit the website <http://www.cfcs2011barbados.org/>

29th West Indies Agricultural Economics Conference

17-21 July 2011

St. Vincent & the Grenadines

CALL FOR PAPERS

29th West Indies Agricultural Economics Conference, 17-21 July 2011, St. Vincent & the Grenadines
Conference Theme: "Agribusiness as the Path to Sustainable Agricultural Development in the Caribbean"

Abstract Submission: February 15th 2011

Author notification of paper acceptance/rejection: March 15th 2011

Deadline for Final Papers: May 31st 2011

Further details: <http://www.caestt.com/documents/CallforPapers-Stvincent2011.pdf>
<http://www.caestt.com/>