# In This Issue 20-27 August 2012

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fruits</td>
</tr>
<tr>
<td>2.</td>
<td>Cassava</td>
</tr>
<tr>
<td>3.</td>
<td>Cereals</td>
</tr>
<tr>
<td>4.</td>
<td>Climate Change</td>
</tr>
<tr>
<td>5.</td>
<td>Water</td>
</tr>
<tr>
<td>6.</td>
<td>Marketing</td>
</tr>
<tr>
<td>7.</td>
<td>Agricultural Development</td>
</tr>
<tr>
<td>8.</td>
<td>Agriculture and Technology</td>
</tr>
<tr>
<td>9.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Upcoming Events</td>
</tr>
</tbody>
</table>

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Minister of Agriculture and Fisheries, Hon. Roger Clarke, says there is great demand for Jamaican agricultural produce and agro-processed products in the United Kingdom (UK).

He pointed out that the Ministry will be working with local farmers and producers to meet the demand in the market, and called on all the relevant stakeholders, including exporters, to make a concerted effort to further capitalise on those market opportunities in the UK.

For more information see 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.
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
**Fruits**

**Opinion: nanofilm holds key to extending South Asia’s fruit shelf life** by Tamil Nadu Agricultural University’s head of Nano Science and Technology Professor K. S. Subramanian Fresh Fruit Portal, August 17th, 2012

http://www.freshfruitportal.com/2012/08/17/opinion-nanofilm-holds-key-to-extending-south-asias-fruit-shelf-life/

**Full article**

India is blessed with a wide array of agro-climatic conditions producing a vast spectrum of tropical and subtropical fruits. We are the second largest producer of fruits in the world next to China.

Despite the fact that we produce plenty of fruits in the country, the per capita availability of fruits is far from meeting the requirement. The Indian Council of Medical Research (ICMR) suggests that an Indian should eat 150 grams of fruits daily but the availability is only 82 grams. Such a wide gap between demand and availability is primarily attributed to the poor storage facilities and huge postharvest losses which constitute 30-35%.

Reducing these losses can not only improve farmers’ incomes but could also encourage more consumption of this highly nutritious fruit in a region where per capita consumption is only half of the recommended level. The post harvest losses of perishables (fruits and vegetables) account for a loss of INR40 billion (US$719 billion) annually.

In order to reduce the postharvest losses, the Canadian International Development Agency (CIDA) and the International Development Research Center (IDRC) have jointed support a research program on ‘Enhanced Preservation of Fruits in South Asia’ under the Canadian International Food Security Research Fund (CIFSRF). The total budget outlay is CAD$2.5 million (US$2.52 million). The institutes involved are the Tamil Nadu Agricultural University in India, the University of Guelph in Canada, the Industrial Technology Institute (ITI), Sri Lanka and MYRADA (a non-governmental organization for undertaking social research.)

Nanotechnology based products are increasingly moving from industry to agriculture, where the average farmer can easily use them. In this project, scientists are developing a new packaging system that extends the shelf life of fruits. The University of Guelph in Canada has invented a patented technology using a safe, plant-derived chemical compound (hexanal) that reduces post-harvest losses.

The Tamil Nadu Agricultural University in India has developed a nano-film to extend the shelf life of fruits and vegetables. Similarly, the Industrial Technology Institute in Sri Lanka has a bio-wax formulation that helps to reduce postharvest damage. The project integrates these discoveries using nanotechnology to develop a simple and low-cost hexanal delivery system that prolongs freshness and improves the quality of highly perishable fruits.

The nanoparticles in this project are developed from agricultural waste products, namely the natural fibers extracted from coconut husks and banana plants, creating new income opportunities for small-scale entrepreneurs, particularly women.

The project is also building links with the private sector for biodegradable packaging materials. Researchers expect to adapt the technologies developed in this project to other economically important horticultural crops, including fruits, flowers, and vegetables. Benefits for the soft fruit industry, such as berries, can also be extended to Canada.

In India, the use of biodegradable packaging material is to an extent of 10-15% and majority of them are non-biodegradable. The biodegradable sheets are very fragile and capable of absorbing moisture from the produce or from the atmosphere. As a result, these sheets rarely used for a long-term storage or as carry bags. They are also expensive and add costs to the customer. However, many cosmopolitan cities such as New Delhi, Mumbai, Chennai and Kolkotta are imposing rules to use only biodegradable packaging.

The new nanofilm packaging material we intend to develop under the IDRC with funding under the CIFSRF is
made of indigenous fibers (coconut and banana) and are biodegradable and the extent of degradability is yet to be investigated.

In the IDRC Project, we involve private packaging industries to ensure that the product gets commercialized after the development of the “nanofilm”. Our target fruit is mangoes and the fruits are harvested at two-thirds maturity. Our interest is to extend the shelf life of mangoes during the transport and storage for a period of three to four weeks without refrigeration. In order to address the issue at the small and marginal farmers, we involve NGOs (Myrada) in our project.

The research team leaders involved in the project include Dr. Jayasankar Subramanian from the University of Guelph, Canada and Dr. Shanthi Wilson Wijeratnam from the Industrial Technology Institute, Sri Lanka.

Cassava


Full article

Press reports in Nigeria indicate that on the eve of the introduction of a 15% increase in duties on wheat imports, the annual cost of Nigerian wheat imports had risen to US$4.1 billion. This measure, which according to USDA increased the import levy from 5 to 20%, was introduced as part of the policy to promote a substitution of cassava flour for wheat flour in bread. The measure is to be accompanied by an additional 65% levy on wheat flour, to bring the applied duty to 100%. As part of this policy, the government of Nigeria has not only increased import duties but is also offering corporate tax rebates to millers, with duty-free imports of all equipment for processing or blending cassava flour.

While bakeries are to be allowed 18 months to comply with new requirements, 10% blending of cassava flour with wheat flour is to be introduced in 2012, increasing to 40% by 2015. This is seen as creating new market opportunities for Nigerian farmers. In addition, despite initial political controversy over the health effects of the use of cassava flour in bread, the president of the Nutrition Society of Nigeria has come out in favour of blending requirements, arguing that by lowering the glycaemic index of bread, cassava-blended bread would help combat diabetes and would in addition be more nutritious.

There remains scepticism over the initiative, given the failure of a similar 10% blending requirement in 2005. Faced with opposition from millers linked to the quality of the cassava flour produced, blending requirements were first reduced and then abandoned. The 2005 experience and similar shortcomings in the 2002 presidential initiative on cassava have been cited as past examples that have discouraged investors from engaging with the new policy.

However, some companies have publicly endorsed the initiative and pledged support for the government’s blending objectives, and in June 2012 the Association of Small Scale Agro Producers in Nigeria (ASSAPIN) came out in favour of the use of cassava flour in bread. However, ASSAPIN warned that the government needed to consult and carry small-scale farmers along with the new initiative.

Agritrade Comment

The current ‘cassava bread’ initiative offers considerable potential for job creation (estimated by the government at 1.3 million jobs), as well as increased returns to cassava farmers and foreign exchange savings.
However, cassava is a versatile crop with multiple uses. In addition to growing international demand for cassava as an animal feed, there is a range of existing national and regional markets for cassava-based food products. For example, gari, a manufactured cassava product, is consumed widely in all parts of Nigeria and in the region.

Expanding the use of cassava flour in food products will require the development of an efficient and well-integrated production and marketing system, in order to assure a steady supply of cassava products of stable, high-quality standards, with specific properties at appropriate prices. The Nigerian government aims to meet this challenge in part by expanding production from the current 35 million tonnes (Nigeria is already the world’s largest producer) to 51 million tonnes. However, a shortage of contiguous land for commercial development, linked to Nigerian land tenure systems, suggests the need for a greater focus on expanding smallholder cassava production.

At a regional level, the Nigerian government’s decision to ban cassava flour imports from March 2012 (despite the absence of any current trade) sits uneasily with regional trade policy commitments and regional initiatives to promote cassava production and intra-regional trade in cassava products.

Cereals

**Sharp fall in world cereal production forecast** by 20 August 2012


**Full Article**

The US Department of Agriculture has made the largest downward revision (12%) to its estimate for a maize crop in a quarter of a century which, with a 37% cut in its estimate for the end-of-season inventory, contributed to rises in prices (for delivery in December 2012) of 44% for maize, 45% for wheat and 17% for soya beans.

According to the *Financial Times*, the USA accounts ‘for one in every three tonnes of the staple grains traded on the global market.’ The article asks whether it is correct to draw ‘comparisons with 2007-08, when a price surge triggered a wave of food riots in more than 30 countries from Bangladesh to Haiti, and 2010, when Russia banned grain exports, setting off a price jump that some have argued helped to cause unrest across the Arab world last year.’

The answer is ‘not yet’, not least because the rice producing states have not experienced the same adverse weather as the wheat/maize producers. It is stocks of maize and soya beans that are particularly tight; the situation on wheat and rice – staple foods in many developing countries – is less severe. The price at which rice is trading is over 40% below its 2008 high.

Even if the outlook for other major cereal suppliers remains unchanged, however, there could be an indirect effect on the agricultural sector and overall economy of ACP states (as well as other countries) through the impact on the global economy. With the outlook for global recovery looking increasingly brittle, the inflationary effect of higher prices for some cereals may restrict the scope for major economies to boost growth. This could, in turn, impact on the agricultural exports of ACP states as well as other developing countries.

The news comes only a week after the FAO reported that its food price index had fallen for the third consecutive month. Although the general easing of world supply relative to demand this year has reduced some of the pressure
on stocks, levels in some cereals remain tight. Global maize stocks are forecast by USDA to fall to just 15% of annual demand, close to a record low. The capacity of the global cereal market to cope with any further ‘bad news’ may thus be limited.

Climate Change


**Full Article**

The Organisation of East Caribbean States (OECS) will host the second in a series of annual climate change seminars from September 11-13, 2012 at the St Kitts Marriott Hotel.

The seminar is to be held under the theme, “Climate Change and Our Coast – Exploring possibilities, Finding Solutions”. This theme will be explored via presentations to be made by relevant experts in five disaggregated topics as follows:

1) Issues Affecting Coastal Resources and Current Status of Resources
2) Integrated Coastal Area and Watershed Management
3) Impacts of Climate Change and Implications for Economic Sectors
4) Data Needs for Effective Coastal Area Management
5) Coastal Area Management: Policy, Legal And Institutional Arrangement in the OECS Region

An estimated 60 persons from across the OECS and CARICOM region who work in climate change related areas are targeted to attend the seminar, in which they will discuss the vulnerabilities of the region to climate change and have an opportunity to share their personal and professional experiences through the various topics.

The OECS Secretariat anticipates that the seminar will generate rich dialogue on the current and predicted impacts on climate change, especially in light of new research and observations which suggest that climate change and the attendant sea level rise will take place more rapidly than initially anticipated.

Discussions and results of the seminar will be used to inform policy direction and advice for the advancement of climate change adaptation in the OECS.

The seminar is being hosted by the new OECS Climate Change Project – Reducing the Risk to Human and Natural Assets Resulting from Climate Change (RRACC) Project which is funded by USAID.
Water


Full Article

Drought in some parts of the world has hurt global grain production and contributed to food price spikes virtually every other year since 2007, highlighting the need to transform the way water is used - and wasted - throughout the entire food chain.

This is one of the key messages that FAO is transmitting this week at World Water Week in Stockholm, Sweden. The annual event brings policy makers and experts from around the globe together to discuss pressing issues related to water and its management.

In a speech made today at the Week's opening ceremony, FAO Director-General José Graziano da Silva stressed that "there is no food security without water security," noting that FAO's recent report, *The State of Land and Water Resources for Food and Agriculture*, warns that water scarcity and pollution are posing a growing risk to key food production systems around the world.

"Agriculture, as we practice it today, is one of the causes of this phenomenon, as it represents 70% of all freshwater uses," said Graziano da Silva.

But, he also noted, the food production sector also offers tremendous potential for changing how the world uses water.

"Agriculture holds the key to sustainable water use," said Graziano da Silva. To achieve that and meet the world's growing demand for food, "we need to produce in a way that conserves water, uses it more sustainably and intelligently, and helps agriculture adapt to climate change" he added.

Toward that end, FAO is proposing a new framework for water management in agriculture: Coping with water scarcity: An action framework for agriculture and food security.

FAO's framework stresses in particular the importance of the following areas where policy and action should focus:

*Modernisation of irrigation:* age-old canal irrigation schemes need to be modernized to respond to the needs of tomorrow's farmers, allow for the more efficient use of water and increase productivity. Future irrigation will increasingly be piped irrigation and combine different sources of water, including groundwater, in a sustainable way.

*Better storage of rainwater at farm level:* by storing water in small ponds or directly in the ground, farmers can reduce drought-related risks and increase productivity.

*Recycling and re-using:* water re-use, in particular treated wastewater from urban centers, can play an important role for agricultural production in arid areas. A more systematic way of safely using such water can boost local production.

*Pollution control:* better water quality regulations, together with effective enforcement mechanisms, needs to be put in place to reduce water pollution, which aggravates water scarcity.
Substitution and reduction of food waste: agricultural policies must consider the potential that rainfed production still offers in many places, and seek a much more integrated combination of irrigated and rainfed farming.

At the same time, the reduction of post-harvest losses must be part of any water scarcity coping strategy. Of all food produced globally, 30 percent - the equivalent of 1.3 billion tons - is lost or wasted every year along the value chain from field to fork. Reducing these losses go a long way towards reducing pressuring on natural resources that are essential to food production, like soils and water.

UN pushes for global strategy to deal with national drought by Freshfruitportal.com, 23 August 2012

Full Article

A more coordinated and proactive approach to water shortages is being explored by the World Meteorological Organization (WMO) and UN agencies in light of the U.S. drought. WMO secretary general Michel Jarraud, said the U.S. situation underlined global vulnerability to a to a natural hazard that is expected to increase in frequency in the future.

“Climate change is projected to increase the frequency, intensity, and duration of droughts, with impacts on many sectors, in particular food, water, and energy. We need to move away from a piecemeal, crisis-driven approach and develop integrated risk-based national drought policies.”

He said WMO, the UN Convention to Combat Desertification (UNCCD) and other UN agencies were stepping up efforts to manage drought risk to fill the existing vacuum in virtually every nation.

UNCCD executive secretary Luc Gnacadja, said the U.S. drought and the ongoing food crisis in the Sahel region of West Africa – including Mauritania, Mali, Niger, Burkina Faso, Senegal and Chad – showed both developed and developing countries were vulnerable.

“Effective long-term solutions to mitigate the effects of drought, and address desertification and land degradation urgently need to be mainstreamed in national development plans and policies.”

WMO, UNCCD and other UN partners are organizing a high-level meeting on national drought policy from Mar. 11-15 next year.

U.S. Drought Monitor data has showed the percentage of the country in extreme to exceptional drought doubled, from 10% in June to 22% in July. An update on Aug. 16 said there were a few notable improvements – notably in the Midwest – and some serious degradation.

The latest U.S. National Oceanic and Atmospheric Administration (NOAA) report highlighted the weak Southwest monsoon in India which led to deficient rainfall in 50% of the 624 districts in the country through the end of July.

NOAA State of the Climate Global Analysis July 2012 said the globally-averaged temperature for July 2012 marked the fourth warmest July since record keeping began in 1880, and the warmest in the U.S.
Marketing

EPA market intelligence platform one step closer to becoming reality
Caribbean Community (CARICOM) Secretariat. Press release 229/2012, (23 August 2012)

Full article
(CARICOM Secretariat, Turkeyen, Greater Georgetown, Guyana) The Director General of the Caribbean Forum of African, Caribbean and Pacific States (CARIFORUM) Directorate, Mr Ivan Ogando Lora, expressed satisfaction with recent progress made by the Caribbean Export Development Agency (Caribbean Export) to bring on stream its Market Intelligence Platform.

When it begins operations, the Platform is expected to be of great benefit to those regional entrepreneurs and enterprises seeking to leverage the CARIFORUM- European Union (EU) Economic Partnership Agreement (EPA) in their bid to penetrate the EU market.

Mr Ogando was responding to word from Mr David Gomez, head of the market intelligence portfolio at Caribbean Export, that the Agency is poised to move the Platform into a “testing phase, so as to work out any kinks, refine it and take concrete steps to put the pieces in place to launch it.” According to Mr Gomez testing of the Portal is to take place from next month, with the launch expected by latest first quarter of 2013. The Agency’s market intelligence initiative is being rolled out as part of its 10th EDF programming.

Mr Gomez unveiled these plans on the heels of the 2nd CARIFORUM-EU Business Forum, which was held under the auspices of Caribbean Export – in collaboration with the CARIFORUM Directorate, amongst others -- earlier this month under the theme ‘Making the CARIFORUM-EU EPA Work’. The Business Forum facilitated multi-stakeholder dialogue on policy ideas and partnership opportunities with respect to the EPA. It also helped to chart the way forward for interested regional private sector operators to better position themselves to take strategic advantage of the Agreement.

There was wide agreement at the Business Forum that gaps and deficiencies in respect of market intelligence were “holding back” regional firms from effectively penetrating the complex, highly competitive EU market. The consensus at the meeting was that if such constraints were effectively addressed, regional firms could be provided “the edge that they need in identifying opportunities and securing a foothold in that market.” The Executive Director of Caribbean Export, Ms Pamela Coke-Hamilton, called attention to the Agency’s efforts to be a forceful catalyst in enhancing regional market intelligence capacity. The Agency’s soon to be launched Market Intelligence Platform is a core component of these efforts.

Mr Gomez has said of the forthcoming Market Intelligence Platform, “it will be an integral part of a regional system.” He lamented that some have misconstrued the initiative solely as a database. “In fact, the web-based portal is to be just one aspect of the system we are putting in place,” he said. “The objective, in this regard, is to enable private sector operators to manipulate qualitative and quantitative information, in order for them to glean better insight into the markets that they are trying to access,” Mr Gomez underlined. Firms are expected to access the portal.

So too are business support organizations (BSOs), so that they can in turn provide enhanced trade information services to their stakeholders. Mr Gomez underscored that another crucial part of how the system is expected to function is by way of the establishment and consolidation of a regional Trade Information Network operating at the national level across the CARIFORUM States, which will involve BSOs (spanning Goods and Services), statistical offices, amongst others.
Going forward, Caribbean Export’s market intelligence chief said that, “in putting the Network together and for it to operate as it should, building and sustaining relationships across the various network actors will be key to strengthening practical cooperation. Each actor will play a role, and synergies must be taken advantage of if the Network is to operate seamlessly. A lot is riding on the efficacious functioning of the Network, not the least of which is effectively catering to firms’ export strategies/interests and, by extension, the economic fortunes of CARIFORUM states. Market intelligence, then, becomes everybody’s business.”

He also pointed to a second issue that Caribbean Export is seized of, training. “Training is foremost in our minds, as it is vital to equipping frontline actors to effectively utilize the data. Caribbean Export will be aggressively rolling out training activities across the Region in the months to come,” Mr Gomez emphasized.

The portal’s clearinghouse/‘one-stop shop’ functionality is a key selling point for the initiative, which is to draw on databases such as those of the International Trade Centre (ITC), the United Nations Conference on Trade and Development (UNCTAD), and the World Trade Organization (WTO). In the medium to long-term CARIFORUM BSOs will add to the uniquely regional/national data content of the Platform, in so far as they are also expected – working with others in the Trade Information Network -- to gather relevant data and populate the medium.

The fifteen signatory Caribbean Forum of African, Caribbean and Pacific (CARIFORUM) States to the EPA are the independent CARICOM Member States and the Dominican Republic.

CONTACT:
Nand C. Bardouille
Economic Partnership Agreement (EPA) Implementation Unit
nbardouille@caricom.org

Agricultural Development

Great demand for agricultural produce in UK by Chris Patterson, Jamaica Information Service, 21 August 2012

Full Article

Minister of Agriculture and Fisheries, Hon. Roger Clarke, says there is great demand for Jamaican agricultural produce and agro-processed products in the United Kingdom (UK).

He pointed out that the Ministry will be working with local farmers and producers to meet the demand in the market, and called on all the relevant stakeholders, including exporters, to make a concerted effort to further capitalise on those market opportunities in the UK.

Mr. Clarke was speaking at a press conference on the recent ‘Investment and trade mission to Birmingham and London, United Kingdom’, at Jamaica House on August 20. The mission lasted from July 31 to August 9; and August 10 to 12.

"The entire exercise revealed that there is a very strong demand for Jamaican agricultural produce and agro-processed products. Over time, we have lost market share to other emerging sources, which are falsely marketing their products as Jamaican. All relevant agencies of Government must make a concerted effort to work with our exporters to overcome these challenges," he said.
The Minister noted that the meetings have identified credible distributors in the UK, who are willing to partner with local producers/exporters to increase exports to the UK, “providing we can deal with the issue of pricing.”

"We have a far better appreciation of how to price our products; we acknowledge the weaknesses in our packaging and the need to strengthen our phytosanitary regulations and surveillance,” Mr. Clarke said.

He said that the Ministry will take responsibility to work with exporters, to link them to the identified distributors and to address specific issues relating to phytosanitary matters. "We believe that very strong opportunities exist for our spices and cocoa without much effort,” he said.

With regard to fresh produce, Mr. Clarke said that, "we will address, in a collaborative way, the existing challenges. Within a short time, we expect increased exports in bammies, pan cake syrups, cake mixes, pimento, ginger, curry powder, nutmeg and other spices and sauces."

The Minister said that investment opportunities are expected in the cocoa industry, which will lead to an expansion in the medium term. “Of course all of this will translate into increased agricultural production and employment,” he added.

The Ministry of Agriculture and Fisheries participated in two investment and trade promotion initiatives organised by JAMPRO and the Jamaica Tourist Board, as part of Jamaica’s 50th year of independence and the country’s success in the Olympics.

Objectives of the mission were: to introduce a range of Jamaican agricultural produce to the British markets - herbs, spices, sauces, roots and tubers, beverage concentrates and extracts, teas, cocoa, coffee and fresh produce; and to obtain a better understanding of the British market and consumer preferences in respect to prices, packaging, regulatory requirements and distribution.

Other goals were: to engage discussions with buyer/distributors, with a view to having them carry a line of local agricultural produce and products; to present specific investment opportunities in the agricultural sector, particularly coffee, cocoa and spices.

**Agriculture and Technology**

**Ministry seeks to boost agricultural productivity through GIS** by Jamaica Information Service, 22 August 2012

**Full Article**

The Ministry of Agriculture and Fisheries is seeking to better utilise the data gathered through the Geographical Information System (GIS) method, as a key strategy to further boost agricultural productivity.

To this end, a workshop was held at the Ministry’s Hope Gardens offices in Kingston on August 21, where GIS stakeholders discussed the way forward.

The GIS is a computable structure, designed to capture, store, manipulate, analyse, manage and display all types of geographically referenced information.
Addressing the workshop, Principal Director for Policy Co-ordination and Administration in the Ministry, Dwight Uylett, said the meeting was held to see how best to utilise the data on hand to inform policies and programmes.

“We have a lot of intellectual material as far as GIS is concerned and we also have a lot of intellectual capacity, and what we want to do, is to have a meaningful discussion on the best way forward,” he said.

Regional Rural Planner, Geographical Information System (GIS), in the Rural Physical Planning Division of the Agriculture and Fisheries Ministry, Dr. Glynis Ford (standing), makes a presentation during a GIS stakeholders’ workshop, held at the Ministry’s Hope Gardens offices, in Kingston, on August 21.

Mr. Uylett said the Ministry is seeking to take greater advantage of GIS material as it is committed to strengthening its agricultural supply chain, noting that one of the key components of this, is primary production. “We are looking for efficiency, economy and effectiveness in the outputs that we get from this area of the supply chain,” he pointed out.

He further noted that the Ministry’s Rural Physical Planning Division is a critical area in this endeavour. “In this regard, we have been doing a lot of work with the division and its leadership to strengthen the capacity to perform and strengthen its ability to deliver on key service imperatives,” he added.

The core functions of the division include: conducting soils and land cover/land use surveys; rural land evaluation assessments and make recommendations on the use of agricultural lands; and land capability assessments.

The division also assesses soil fertility and makes recommendations for soil and land management; designs and prepares maps; GIS data processing, manipulation, analysis and output; and captures spatial data through aerial photo-interpretation, satellite imagery and global positioning systems.

The workshop also sought to determine stakeholder needs and strengthen the capacity of the Rural Physical Planning Division to: respond and forge partnerships; utilise GIS as a decision support tool in expanding the food health and traceability infrastructure; pursue a deliberate export strategy; and to mainstream climate change adaptation to programmes, policies and production processes.

**Upcoming Events**


**Theme:** Advancing Energy Integration and Energy Access through Renewable Energy (RE) and Energy Efficiency (EE) in CARICOM

**Programme includes session:** Bio-energy Integration in CARICOM

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September 2012

**The 16th International Symposium of the International Society for Tropical Root Crops (ISTRC)**

**Date:** 23 – 28 September 2012,

**Venue:** University of Agriculture, Abeokuta (UNAAB), Ogun State, Nigeria

**Website:** [http://www.istrc.org/](http://www.istrc.org/)
Theme: The Roots and Tubers of Development and Climate Change - Tropical roots and tuber crops are essential to meeting global food security needs, improving staple foods of world's poor and creating new opportunities in global food supply.

Contact persons:
Prof. Lateef Oladimeji Sanni (lsanni@cgiar.org; lateef_2@yahoo.com), Chairman, LOC/Vice President 1, ISTRC
Dr. Kolawole Adebayo (Kolawole_adebayo@hotmail.com), Organizing Secretary, ISTRC, Abeokuta-2012
Prof. Oluwafemi Olaiya Balogun (femibalogun54@yahoo.com), Vice Chancellor, University of Agriculture, Abeokuta (UNAAB)

September 2012
XI International Conference on Goats
Date: 24-27 September 2012
Venue: Canary Islands
Website: http://www.icg2012.org/

October 2012
Global Conference on Agricultural Research for Development 2012: Second Global Conference on Agricultural Research for Development (GCARD II)
Date: 29 October – 1 November 2012.
Venue: Punta del Este, Uruguay
Website: http://www.egfar.org/gcard-2012