### Issues Affecting Caribbean Agriculture

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On the heels of an Information and Communications Technology (ICT) training workshop for the agricultural sector, ICT officials assert the value of ICT to the development of the sector. The Technical Centre for Agricultural and Rural Cooperation of the EU-ACP (CAT), in collaboration with the Organisation of Eastern Caribbean States (OECS), the Ministry of Agriculture, Food Production, Fisheries and Rural Development and the Caribbean Agricultural Research and Development Institute (CARDI) hosted a five day web 2.0 learning opportunity for Saint Lucia last week.

For more information see page 5

**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
Crop Production – Nanotechnology

Using nanotechnologies to boost crop yields? CTA - Brussels Office Newsletter N° 346, 3 December 2012

Full Article

Nanotechnologies that deliver fertilisers to plants offer promising ways of improving farm productivity while reducing the risk of water contamination. But the scientists behind a new Swiss-funded study caution that while the technology is still evolving, potential risks must be considered.

The European Union’s Horizon 2020 research programme proposes heavy investment in developing materials and machines that are built from an atomic or molecular scale, with the European Commission proposing some €6 billion in financing for nano and other advanced technologies. Even more, a UN Food and Agriculture Organization conference held earlier this year in Rome identified nanotechnology as potentially having “significant benefits” for food security in a world facing a population rise from 7 billion now to 9 billion in 2050.

Clemens Breisinger, a German agricultural economist and senior researcher at the International Food Policy Research Institute (IFPRI), says the growth in consumption in the emerging world’s middle class also creates pressure for more production. “As incomes grow, people tend to eat richer food, more meat,” Breisinger said. “The only way to meet the demand is to significantly increase global food production,” Breisinger told EurActiv in a telephone interview. “The big question now is can this be done through productivity gains, or do we need more land.”

But the scientists behind a new Swiss-funded study caution that while the technology is still evolving, potential risks must be considered. Researchers at Agroscope Reckenholz-Tänikon Research Station (ART) in Zurich and the Swiss Federal Office for Agriculture in Berne say that direct application of plant protection products and fertilisers containing nanosubstances may pose potential hazards to microorganisms that flourish beneath the Earth’s surface. The scientists contend there is only limited research into the effects of man-made nanomaterials on soil health, and point out that “the potential improvement of plant protection products and fertilisers through nanomaterials is offset by their significantly higher flux into soils if nanomaterials are used.”

Source: Euractiv

Sweet Potato

Climate change may supersize sweet potato by NewScientist
http://www.newscientist.com/article/mg21628924.300-climate-change-may-supersize-sweet-potatoes.html

Full Article

RISING levels of carbon dioxide in the atmosphere may have a silver lining: doubling the size of the sweet potato, the fifth most important food crop in the developing world.

Most studies of the effects of higher atmospheric CO₂ on crops have shown rising yields of rice, wheat and soy. The hardy sweet potato is increasingly becoming a staple in Africa and Asia, producing “more edible energy per hectare per day than wheat, rice or cassava”, according to research group the International Potato Center.
Hope Jahren at the University of Hawaii at Manao and colleagues grew the plants at four CO₂ concentrations: the current level of 390 parts per million, as well as 760, 1140 and 1520 ppm. The Intergovernmental Panel on Climate Change predicts that atmospheric CO₂ levels will be between 500 and 1000 ppm by the year 2100.

For the least extreme scenario at 760 ppm, the team found the tubers grew up to 96 per cent larger.

The team is now testing their nutrient content. "Are these sweet potatoes any more nutritious," asks team member Ben Czeck, "or do you have to eat twice as many to get the nutrients needed?" Crucially, previous studies revealed the protein content in wheat, rice, barley and potatoes dropped by 15 per cent when grown under CO₂ levels double those of today.

Czeck will present the work in December at the American Geophysical Union meeting in San Francisco.

**Cassava**

*Cassava feed project moving ahead* by Barbados Government Information System, 3 December 2012  

**Full Article**

Government is still moving ahead with its alternative feed programme and is now in the process of sourcing funding for the requisite equipment.

This was disclosed by Minister of Agriculture, Food, Fisheries and Water Resource Management, Dr. David Estwick, who said agricultural officials had already found the necessary automated factory equipment in China which would harvest cassava and also produce pellets to be used as feed for ruminants and poultry as well as for flour production.

Speaking during a press briefing last Thursday at the Ministry of Agriculture, Food, Fisheries and Water Resource Management, Graeme Hall, Christ Church, he said government, through the Ministry of Foreign Trade, was now actively sourcing 2.5 million dollars for the equipment by way of the Chinese Grant Funding Programme.

"We are pretty confident that once we can get those funds in place, we can bring those pieces of equipment here to Barbados. We have enough land, through the Barbados Agricultural Management Company Ltd. and the Barbados Agricultural Development and Marketing Corporation (BADMC) to be able to grow cassava and we are looking at around 3,000 acres of cassava in Barbados, which would create a cassava industry."

"We want to take it from the farm to the finished product and that will provide jobs and militate against the inflation prices associated with importing feed for poultry and for animals. The impact of that nationally is the skyrocketing chicken prices as well as beef, lamb and so on," Dr. Estwick pointed out.

Many local farmers have complained about the rising costs of farm inputs such as feed and Dr. Estwick stressed that his Ministry was working feverishly to have the cassava project up and running which he indicated would greatly assist the farming community while boosting local agricultural production.

In addition, the Agriculture Minister said there was a significant and growing market for cassava products in Barbados, with the BADMC presently unable to meet the local demand for cassava flour.
"We have had meetings... with several of the bakeries in Barbados and we are in the process now through the new Food Promotion Unit at the Grantley Adams Industrial Estate to make sure we can distill the percentage of cassava flour that could be added to normal wheat flour, so you can maintain the quality characteristics of the breads we like," Dr. Estwick said.

Grains


Full Article

Representatives from governmental and non-governmental organisations across the world have agreed to establish a new multinational initiative - the Wheat Yield Network (WYN). The Network will support research and development activities to raise global wheat yields and develop new varieties adapted to different geographical regions.

The WYN has been established within the framework of the G20 sponsored Wheat Initiative.

The WYN has been instigated by BBSRC (UK), USAID (USA) and CIMMYT (Mexico) and was launched at a meeting in Mexico City sponsored by SAGARPA (Mexican Ministry of Agriculture, Livestock and Rural Development, Fisheries and Food). The meeting was opened by the Mexican Minister of Agriculture, Francisco Javier Mayorga Castañeda.

The WYN will be a truly global endeavour that utilises a new collaborative approach to bring together funding from governmental and non-governmental public bodies and the private sector, to support both core infrastructure and facilities alongside transnational open calls for research, all targeted at raising the yield potential of wheat.

Wheat provides some 20% of the global calories consumed by mankind yet production faces myriad pressures such as climate change and changes in land use; all of which are compounded by the overriding pressure to feed a burgeoning global population.

The WYN is a long-term endeavour and aims to raise the yield potential of wheat through sustainable approaches by up to 50% over the next twenty years.

Steve Visscher, Deputy Chief Executive of BBSRC, said: "Wheat is one of the world's most important staple crops but it is under great pressure at a time when we need to find ways to feed our growing global population whilst also adapting to climate. The challenge of increasing yields and developing new varieties is too big for any one agency or country to meet. By working together, sharing infrastructure, expertise and results, the partners in the Wheat Yield Initiative believe we can make a greater impact."

The partners in the Network have agreed to work together in a unique way. The Network will include Government bodies, NGOs and, in the near future, private sector companies. All the partners are committed to transparency, collaboration, open communication of results and data sharing and coordination to maximise global impact and eliminate duplication of effort.

The WYN is a long-term initiative with a twenty year ambition. Over the first five years the partners are planning to invest US$50-75M.
Livestock


Full Article

Su Kahumbu, a Kenyan social entrepreneur (TED Global Fellow 2010) and 2010 winner of Apps4Africa award for the iCow application, a cow management platform that helps small-scale farmers manage their dairy cows, will give a presentation on ‘livestock and mobile technology’ at the ILRI Nairobi campus John Vercoe Auditorium, on 11 December 2012, from 1500-1600 hours.

The iCow app allows subscribed dairy farmers to input information on their livestock and they receive information through the application on feeding practices, disease control, gestation, health and other livestock related issues. With iCow, farmers are also able to keep and track records on each of their animals. Most of this information is delivered through SMS, but farmers may also call and speak to iCow customer care representatives.

Kahumbu is passionate about promoting organic agriculture which includes the distribution of information to farmers nationally through print and radio, as well as over the Internet in a program funded by the Biovision Foundation. The foundation has recently launched a farmer communication program that will use mobile phone technology to deliver information to farmers.

Climate Change


Full Article

In Doha, Qatar, the MAG and MINAET, with support from IICA, CATIE, and GIZ, will showcase seven examples of how the public and private sectors can act together to deal with the effects of climate change.

The actions that Costa Rica is implementing in seven specific subsectors to mitigate greenhouse gas (GHG) emissions and adapt its agriculture to climate change will be presented to the world on December 7 in Doha, Qatar, during the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 18).

The country will be showcasing specific efforts in the areas of family farming, dairy and sugarcane production, transfer of technology to small farmers, risk management, reduction of emissions in the coffee industry, and public-private partnerships in the banana subsector to achieve carbon neutrality. Gloria Abraham, Minister of Agriculture and Livestock, and René Castro, Minister of Environment, Energy, and Telecommunications, will be in charge of the activity taking place parallel to COP 18.
The Inter-American Institute for Cooperation on Agriculture (IICA), the Tropical Agriculture Research and Higher Education Center (CATIE) and Germany’s international cooperation agency (GIZ) will be supporting the presentation of the cases at the important event, where politicians, researchers, and world leaders will be discussing possible ways of mitigating and adapting to climate change.

David Williams, manager of IICA’s Agriculture, Natural Resources and Climate Change Program, will also be speaking on the mitigation and adaptation efforts of Costa Rica’s agriculture subsectors. Materials containing a summary of the presentations by Abraham and Castro can be consulted at [www.mag.go.cr/cambio-climatico/cambio-climatico.html](http://www.mag.go.cr/cambio-climatico/cambio-climatico.html).

The Ministry of Agriculture and Livestock (MAG) and the Ministry of Environment, Energy and Telecommunications (MINAET) have spearheaded the coordination and systematization of these actions.

“We want to show the world that a small country like ours has much to contribute to the solution of a global problem and that smallholders can do a great deal by adopting environmentally friendly and sustainable practices. We are implementing concrete actions going beyond mitigation, we are advancing toward adaptation to climate change,” Minister Abraham remarked.

“The first 17 climate change summits focused on the issue of forests but that cycle has come to an end. The contribution that Costa Rica can make from COP 18 onward, preaching by example, is in agriculture,” Minister Castro added.

“COP 18 is a propitious occasion to recognize that agriculture is vital for world food security and very susceptible to climate change. It is also a very valuable opportunity to reaffirm that the sector can make major contributions to the challenges of mitigation and adaptation,” observed Víctor M. Villalobos, Director General of IICA.

“Costa Rica is a great laboratory, where people are experimenting with real actions to reduce GHG emissions, and an institutional framework is already in place that can serve as an example to other nations seeking to undertake similar challenges,” added IICA’s David Williams.

COP 18 began on November 26 and will end on December 7, the day on which Costa Rica will be presenting its successful cases. According to the invitation sent by ministers Abraham and Castro to the rest of the participating delegations and the accredited media organizations, the activity will be taking place at 13:15 local time (04:15 in Costa Rica) in Room 8 of Qatar’s National Convention Center.

For more information, contact: david.williams@iica.int
prensa@mag.go.cr
murillo.katiana@gmail.com

**ICT and Agriculture**

**Using ICT to develop the Agricultural Sector** by the Government of St. Lucia Official Website

**Full Article**

On the heels of an Information and Communications Technology (ICT) training workshop for the agricultural sector, ICT officials assert the value of ICT to the development of the sector.
The Technical Centre for Agricultural and Rural Cooperation of the EU-ACP (CAT), in collaboration with the Organisation of Eastern Caribbean States (OECS), the Ministry of Agriculture, Food Production, Fisheries and Rural Development and the Caribbean Agricultural Research and Development Institute (CARDI) hosted a five day web 2.0 learning opportunity for Saint Lucia last week.

Trainer and Business Development Consultant Kelly-Ann Phillips says progress in agriculture must be tied to exploiting the diverse opportunities provided by ICT.

“Traditionally, Agriculture is not a sector that was associated with technology per se. As technology consultants we see that the development of every sector is dependent on ICT we have seen ways that farmers and persons in agriculture can benefit from technology. So that's why we're expanding it to the agricultural sector as well, to let people know how you can leverage technology even in the field of agriculture to make your business more productive,” she said.

The use of ICT in agriculture has been making waves in developing countries, especially in Africa, where mobile phone applications are used by farmers to receive pertinent information and exchange best practices with each other.

One such application is the iCow application in Kenya used by small scale dairy farmers to track animals gestation periods, and get information on feeding and milking practices, veterinary and other agricultural services available in their communities.

Mrs Phillips says the web 2.0 training in Saint Lucia will introduce stakeholders to a number of internet applications to build synergies and accelerate business.

“In one case, I remember one individual from an agricultural institution, he was able-actually in the last web 2.0 session that we did- he was able to put up a blog, and he put up all the information of his organisation up online, and by the end of the training he had a couple hundred persons visiting the site to see what's it about. So that’s one application of the success of Web 2.0 to persons in the agricultural sector.”

Agricultural Research

Director-General says FAO is changing to face today’s challenges: Governing Council reviews policy proposals

FAO

Full Article

Addressing the opening session of the governing Council, FAO Director-General José Graziano da Silva thanked Members for their ongoing support to transformational changes in FAO, which allow the Organization to move forward with renewed focus and purpose.

In his statement, the FAO Director-General said that FAO needed to adapt to face the multidimensional challenges of today and explained what the proposed changes meant to the Organization.

"We are starting to move from a project approach to a programme approach. We are breaking down institutional silos and promoting synergies across the Organization. We are breaking down the separation between FAO's work on knowledge and operations. We are doing away with the artificial separation between emergency, rehabilitation
and development. And we are opening FAO to work better with partners," said Graziano da Silva.

According to the Director-General, a recent partnership launched by the African Union and FAO, with the support of Instituto Lula, embodied the "spirit of the changes" that were being made in FAO.

The Director-General also requested endorsement of the draft FAO Strategy on Partnerships with Civil Society so the Organization would have a solid and transparent foundation to work with. He informed the meeting that the partnerships strategy with the private sector would be submitted to the governing bodies in the first quarter of 2013.

Strategic objectives

The FAO Council is expected to give its final endorsement this week to the new set of crosscutting strategic objectives that are designed to address emerging challenges and priorities faced by FAO in its future work.

Emphasizing that he had found over $26 million in savings and efficiencies this year and with Council's approval reallocated over $19 million in savings from administrative areas to support technical work, the FAO head asked for an increased budget of the Organization for the 2014-2015 biennium.

"Even a small, real increase in the next budget level will help ensure that the new cross-cutting Strategic Objectives may be achieved, in addition to acting as a catalyst for mobilizing further extra-budgetary resources," he said.

Finally, Graziano da Silva asked Council to endorse proposed amendments to the General Rules of the Organization that would smooth the transition when new administrations took over.

"I am voluntarily pursuing a course that would in effect mean giving up part of my own powers to introduce the concept of an orderly transition in FAO," said the Director-General.

The Director-General also offered his condolences to the family and friends of former FAO Director-General Edouard Saouma, who has passed away. Saouma headed the Organization from 1976 to 1993.

IICA launches the observatory at a forum on the innovative agricultural research models that exist in Latin America and the Caribbean.

The Inter-American Institute for Cooperation on Agriculture (IICA) recently launched an Observatory of Institutional Innovations, the main objective of which is to share agricultural innovations in the western hemisphere that have proven successful and could be replicated in other countries of the region.
The portal was unveiled officially at a technical forum on innovative agricultural research models held at IICA Headquarters in Costa Rica, and webcast throughout the hemisphere.

Arturo Barrera, Manager of IICA’s Innovation for Productivity and Competitiveness Program, remarked that the observatory was “a space for sharing experiences and making more and better information available to support the adaptation and modernization of institutions.”

The Web page was created for the institutions that make up the national agrifood innovation systems of Latin America and the Caribbean, so they can upload information about innovations they have introduced and believe to be of public interest.

“The innovations must be new actions promoted by an institution whose implementation got under way within the last three or four years,” explained IICA specialist Karen Montiel.

Montiel added that, for the purposes of the observatory, institutional innovations are changes that enable institutions to better achieve their objectives. They include new management models, new businesses in which institutions become involved, transfer models and lessons learned, skills development for human resources, the creation of partnerships with public or private stakeholders, and asset management.

“So far, 21 institutions in 13 countries have posted information about 41 innovations,” Montiel reported.

As well as offering information on institutional innovations, the observatory aims to become a forum for the discussion of opportunities and challenges related to the issue, and a tool for supporting the generation of technical cooperation policies on the subject.

A look at some institutional innovations

A number of institutional innovations originating in Latin America and the Caribbean were presented at the technical forum organized by IICA.

One of them was presented by Chile’s technological consortium on fruit. Jaime Kong, manager of the Consorcio de la Fruta S.A., pointed out that Chile was the world’s leading exporter of fresh fruit, but the creation of brands and increased competition posed a threat to the industry’s sustainability.

In the face of that threat, the best solution was the creation of Chilean varieties. “That was how the consortium came about. The INIA of Chile, private entities, and academia decided to work together to generate products that everyone could use,” Kong pointed out.

In this case, institutional innovation involved sectors with common interests joining forces, and called for investment in technology transfer, training, and genetic improvement.

The sustainable agriculture platform of the Coca Cola Company was another of the cases presented. Under the project, the company’s subsidiary in Costa Rica joined forces with Earth University to create an experimental vegetable garden in an educational center in Los Chiles, in the Zona Norte, one of the poorest regions of the country.

The platform’s president, Ernesto Brovelli, explained that under the partnership with Earth University, “we are experimenting with orange growing techniques that reduce the use of fertilizers, and the results have been very good in terms of growth and productivity.”
Another of the innovations presented was the creation of regional innovation consortia by Uruguay’s National Agricultural Research Institute (INIA), a management model involving the private sector.

José Silva, the INIA’s technology business manager, explained that, under the model, the State and the private sector each had two representatives on the board of directors, making it possible for agricultural producers to set research priorities.

“Public-private partnerships are a good example of a useful way of bringing about innovations in the institutional framework of agricultural research in Latin America and the Caribbean,” Barrera commented.

For more information, contact: arturo.barrera@iica.int

Rural Development


Full Article

According to the World Bank, 600 million new jobs will have to be created over a 15-year period for employment rates to remain constant. The World Development Report 2013 considers jobs as drivers of development and shows that jobs are more than merely a byproduct of economic growth – they are transformational in terms of living conditions, social cohesion and productivity gains.

The Report was presented in a panel discussion at the World Bank Brussels Office on 27 November, where many issues relating to employment in developing countries were raised, including the importance of increased rural productivity for smallholder farmers, the necessity for remote small island nations to link their economies to the global economy for the sustainable creation of jobs, and the lack of data concerning employment and labour in the majority of Sub-Saharan African countries.

Source: World Bank Group, CTA


International Relations

Caribbean Heads urge stronger voice for ACP Group. CTA - Brussels Office Newsletter N° 346, 3 December 2012


Full Article
The President of Suriname joined fellow Head of State from Guyana in welcoming parliamentary delegates from the African, Caribbean and Pacific Group last weekend, calling for stronger economic cooperation amongst its 79 member states, less reliance on foreign aid, and a united voice on global development issues.

In his presentation at the opening ceremony of the 30th Session of the ACP Parliamentary Assembly on Saturday in Paramaribo, H.E Desiré Delano Bouterse urged members to embrace South-South cooperation in creating new economic models for sustainable development. He said leaders must “create order” in national economies first.

“The ACP has shown its strength and remains a considerable force that cannot be overlooked... I call upon you to put in all your efforts in deepening the relations that exist among us. It is in our interest to shift the balance in our favour by vigorously promoting cooperation among ourselves,” he told the packed hall.

President Ramotar urged parliamentary members to rally together on issues such as food security, unemployment, poverty reduction, and corruption. He called for the ACP voice to be heard more loudly on international issues, such as developments in the Middle East, democratisation of multinational institutions such as the IMF, and broadening relationships with emerging economies such as BRICs. The ACP plenary session was held in preparation for the 24th session of the ACP-EU Joint Parliamentary Assembly to start Tuesday 27th November.

Media and Agriculture


Full Article

Winners of the 3rd Annual IICA/CARDI Media Awards Excellence in Agricultural Journalism 2011-2012 received their awards at a ceremony held on Saturday 24 November 2012 in Port of Spain, Trinidad and Tobago. The recipients were:

Ms. Yugita Kissoonsingh, IICA/CARDI Special Award for Citizen Journalist ages 12-18

Ms. Nisha John-Mohammed, TV6, Television - Best News / Feature (Reporter)

Mr. Azlan Mohammed, Trinidad and Tobago Newsday, Photography - News Photograph

Mr. Krishna Maharaj, Trinidad Express, Photography - Feature Photograph

Ms. Shaliza Hassanali, Trinidad and Tobago Guardian, Print - Best News Story

Ms. Sasha Harrinananan, Trinidad and Tobago Newsday, Print - Best Business Feature

Trinidad and Tobago Newsday, Overall Excellence in Agricultural Journalism
‘Sustainable Agriculture – Sustainable Society’ was the theme of this year’s competition. The *IICA/CARDI Media Awards for Excellence in Agricultural Journalism* aims to foster greater understanding of food security and related issues among media in Trinidad & Tobago, as well encourage awareness of food security issues among citizens.

**Links of interest**

**Shailza gets Award.** Trinidad Guardian 26 Nov 2012  [http://guardian.co.tt/news/2012-11-26/shaliza-gets-award](http://guardian.co.tt/news/2012-11-26/shaliza-gets-award)

**Newsday photo** 25 Nov 2012  [http://www.newsday.co.tt/day/1,61748.html](http://www.newsday.co.tt/day/1,61748.html)