
The Caribbean Community (CARICOM) will focus over the next two years on unveiling the Single Information Communication Technology ICT Space as the digital layer of the CARICOM Single Market and Economy (CSME). Chairman of the Conference of Heads of Government, Dr. the Hon. Ralph Gonsalves, Prime Minister of St. Vincent and the Grenadines, said Tuesday evening that a Roadmap to this end would be developed and presented to the Heads of Government Meeting in July 2015.

For more information see page 18

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
Invigorating The Potato Seed Industry In Africa: The delicate process of potato breeding in East Africa. International Potato Center (CIP), 19 March 2014

Full Article

An expert and experienced potato breeder, Asrat Amele spends his days, along with his team of researchers and scientists, tending to his potato crop, working in the lab, the greenhouse, out in the field – and back again.

Asrat and his team are working with the CIP-led CGIAR Research Program on Roots, Tubers and Bananas (RTB) to invigorate the potato seed industry in Sub-Saharan Africa. The program activities are based at KEPHIS Plant Quarantine Station, Muguga and KARI Research Station, Tigoni on the outskirts of Nairobi. The team focuses on the making of next generations of robust varieties and production of disease free potato mini-tubers through aeroponics and improved traditional soil systems. The team is doing exciting work to produce new breeds of potatoes that are better suited to the local climates and soil types and which are more resilient to local pests and diseases. The team researches the development of new varieties that combine high tuber yield with desirable traits such as consumer and commercial preferences and resistance to biotic stresses with an enhanced level of adaptation to their specific production conditions.

Potato breeding is a delicate process requiring intimate knowledge and understanding of the potato plant. Asrats’ team works hard from the moment they bring new seed to life, from growing tissue culture plantlets in the lab, to nurturing young plants in the greenhouse and monitoring them closely as they mature into seedlings and full-grown plants.

The potato-breeding program in East Africa has a research emphasis on incorporating genetic resistance and tolerance, enhancing adoption of new varieties, and responding to the needs, concerns and preference of farmers and consumers, in the region. The program has four major goals: to develop durable resistance to predominant diseases (late blight, virus, bacterial wilt); to produce stable yields and quality with less water and under warmer temperatures; to improve nutritional and market traits; and to develop varieties matching cropping system requirements.

Potato breeding is a core program through which CIP and national partner organizations in Africa contribute to the development of new robust potato varieties which have the potential to promote strong rural livelihoods to help ensure nutrition security and sustainable productivity in the region. CIP and national partners are working through regional potato breeding programs to develop adapted potato varieties for a range of farmer conditions, markets and preferences in Africa by building a collaborative breeding system that uses intelligent breeding methods and clever tools with vibrant community of practice.

In East Africa, the number of requirements for new potato varieties is growing. Growers require novel varieties, which produce higher yield under their prevailing condition, and shorter dormancy, and which, in addition, possess desirable traits preferred by consumers and markets.

In most African countries, potato-breeding programs depend on testing materials that have been developed elsewhere, and in many cases this does not work well. A further problem is that the testing
schemes practiced by many are very lengthy (sometimes taking up to 8 to 10 years to deliver a new variety. And lastly, many programs are constrained by genetic diversity for designing productive and sustainable breeding programs as well as not having access to trained and experienced breeders.

Asrat and his team are working towards decentralizing breeding in Africa. The CIP team wants to build capacity in breeding and selection to reduce time and improve accuracy for efficient delivery of pro-poor potato varieties; it also seeks to develop a platform where breeders in the region interact to stimulate discussion and encourage collaborations across breeding and research teams. The team also wants to focus on integrating a breeding strategy that makes use of scientific knowledge as well as farmer knowledge and experience and which pays attention to gender and age preferences.

The CIP Potato breeding team is currently establishing a regional breeding hub in Kenya and Ethiopia that will support national programs by providing new and diverse genotypes which combine unique traits for a range of farmer conditions, markets and preferences. The program currently targets the following countries: Angola, Burundi, DR Congo, Ethiopia, Kenya, Tanzania, Malawi, Mozambique, Rwanda, Uganda, Nigeria and Mali.

From the lab, to the greenhouse, to the field, and back again, this talented team is paving the way in potato breeding techniques in East Africa. On a recent visit to the project, we documented the team’s efforts to invigorate the potato seed industry in Kenya through innovative potato breeding work.

See below for a collection of photographs of the people and plants behind the making of the next generation of new seeds for Africa, in Africa.

View the 'From seed to plant & Lab to Greenhouse & Back again' notebook on Springpad

FURTHER INFORMATION:

To see more images of Asrat and his team at work visit the CIP SSA Potato Flickr Site. If you would like further information about CIP’s Potato Portfolio click here. And for more information about the Potato Breeding program in East Africa please contact Asrat Amele at a.amele@cgiar.org
Rice

Burma Rice Research station to release new rice varieties shortly. GINA, 21 March, 2014

Full Article

Scientists at the Burma Rice Research Station have been instrumental in the past in releasing new lines of rice which have proven not only to enable farmers to harvest more paddy per acre, but can withstand harsh climatic conditions.

GRDB 9, 10 and 11 which were released over the last three years became the stars of the industry, according to Jagnarine Sookhoo, rice farmer of Mahaicony Creek, who stated that he has for the last three years, yielded over 60 bags per acre.

On Wednesday, Agriculture Minister Dr. Leslie Ramsammy visited the research station to check on the ongoing progress made thus far, and to get hands on approach to some of the techniques used by the scientists.

While touring the facility, Scientist Dr. Mahendra Singh explained some of the tests done on the F4, F6 and F8 (salt resistant) and the new line of varieties which is expected to be released shortly targeting 20 farmers in the initial stage.

“Over the years, we (scientists) at the Research Station have been working to ensure that we don’t only release new and improved varieties of rice, but also varieties which can withstand heavy climatic conditions and still produce exceptionally well,” he said.

GRDB 11 and 12 have been proven successful in garnering more bags of paddy per acre, while GRDB 9 is known to be more feasible.

Apart from tests being done to have more varieties released, the Research Station has also developed various Pedigree Nurseries where testing for resistance to pest and disease, tolerance to lodging and blast resistance varieties are ongoing.

“The Research Station has come a long over the years, and their work coupled with investment, and farmers’ input have seen the industry propelling…it is the hope of the Government to continue to work with the Research Station through GRDB to have the station evolve by incorporating new techniques,” Minister Ramsammy said.

One of the focal issues in agriculture is climate change, and cognisant of its effects, the developments of new rice varieties are necessary.

Climate change impacts negatively on the availability, stability, access and utilisation of food security, and according to Minister Ramsammy, the development of rice varieties which are blast resistant and have high milling qualities can be not only beneficial to millers and farmers, but the industry as a whole.

“Food security is the most vulnerable and as such, it is important that we (Government) continue to push for the right varieties of rice to be developed; hence the reasons for pushing for climate smart agriculture,” Dr. Ramsammy said.
The Guyana Rice Development Board (GRDB) has also incorporated the use of the six point practice which has also proven successful with farmers across the rice growing regions adopting.

The six improved crop management practices include; date of planting, density, treatment of seeds, weed control, fertilization and water management. These techniques fall under the Ministry of Agriculture’s programme of having farmers adopt proper farm husbandry.

**Agro-energy**

**E-Fuel from Albion plant for test in Agri Ministry vehicles.** GINA, 19 March, 2014

**Full Article**

Twenty (20) vehicles from the Ministry of Agriculture and the Guyana Sugar Corporation (GuySuCo) will shortly begin using renewable fuel, as the sugar company has started fuel production using ‘blackstrap’ molasses at its Bio-Ethanol Demonstration Plant in Albion, Region Six.

According to Minister of Agriculture Dr. Leslie Ramsammy, “Now that Albion sugar factory is grinding, which means they have access to molasses and the production of ethanol, they have begun again the production, the blending is being done; blending of regular fuel with the bio-ethanol and we have now identified the 20 Ministry of Agriculture and GuySuco vehicles that you will see within a matter of days with the stickers that they are using E-10 fuel,” Minister Ramsammy said.

The factory can easily support the fuel use of the vehicle, the Minister stated. He explained that the factory is able to produce 1000 to 2000 litres of fuel per day, and as such should, within a month makes 45,000 litres of E-10 for use by the vehicles.

The bio-ethanol plant, a collaborative effort of the Ministry of Agriculture and the GuySuCo, was commissioned in August 2013.

It was established to support the development of the Agro-Energy Sector, and utilises molasses, a by-product from the sugar cane production process, to produce ethanol of purity greater than 99 percent.

The effort to blend the bio-ethanol produced into E-10 blends for utilisation in vehicles is a movement to introduce renewable energy to the public. With this awareness, supporting policies and ensuring evaluation; it is hoped that private investment would catapult this industry into commercialization.
Climate Change

Climate change will reduce crop yields sooner than we thought. University of Leeds, 17 March 2014
http://www.leeds.ac.uk/news/article/3505/climate_change_will_reduce_crop_yields_sooner_than_we_thought

Full Article

A study led by the University of Leeds has shown that global warming of only 2°C will be detrimental to crops in temperate and tropical regions, with reduced yields from the 2030s onwards.

Professor Andy Challinor, from the School of Earth and Environment at the University of Leeds and lead author of the study, said: “Our research shows that crop yields will be negatively affected by climate change much earlier than expected.

“Furthermore, the impact of climate change on crops will vary both from year-to-year and from place-to-place – with the variability becoming greater as the weather becomes increasingly erratic.”

The study, published today by the journal Nature Climate Change, feeds directly into the Working Group II report of the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report, which is due to be published at the end of March 2014.

In the study, the researchers created a new data set by combining and comparing results from 1,700 published assessments of the response that climate change will have on the yields of rice, maize and wheat.

Due to increased interest in climate change research, the new study was able to create the largest dataset to date on crop responses, with more than double the number of studies that were available for researchers to analyse for the IPCC Fourth Assessment Report in 2007.

In the Fourth Assessment Report, scientists had reported that regions of the world with temperate climates, such as Europe and most of North America, could withstand a couple of degrees of warming without a noticeable effect on harvests, or possibly even benefit from a bumper crop.

“As more data have become available, we’ve seen a shift in consensus, telling us that the impacts of climate change in temperate regions will happen sooner rather than later,” said Professor Challinor.

The researchers state that we will see, on average, an increasingly negative impact of climate change on crop yields from the 2030s onwards. The impact will be greatest in the second half of the century, when decreases of over 25% will become increasingly common.

These statistics already account for minor adaptation techniques employed by farmers to mitigate the effects of climate change, such as small adjustments in the crop variety and planting date. Later in the century, greater agricultural transformations and innovations will be needed in order to safeguard crop yields for future generations.

“Climate change means a less predictable harvest, with different countries winning and losing in different years. The overall picture remains negative, and we are now starting to see how research can support adaptation by avoiding the worse impacts,” concludes Professor Challinor.
The study was financially supported by the NERC EQUIP programme and the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), with the financial assistance of the European Union, Canadian International Development Agency, World Bank, New Zealand Ministry of Foreign Affairs and Trade and Danida.

Further information

The research paper, 'A meta-analysis of crop yield under climate change and adaptation', was published online by the journal Nature Climate Change on 16 March 2014.

Professor Andy Challinor, a lead author of the forthcoming IPCC report, is available for interview. Please contact Sarah Reed, Press Officer, University of Leeds, on 0113 34 34196 or email s.j.reed@leeds.ac.uk

Lead authors of research papers from the University of Leeds from all three Working Groups of the IPCC Fifth Assessment Report will be available for interview at the About Transformational Climate Science 2014 conference, which will be held in Exeter on 15-16 May 2014. The event is co-organised by the University of Leeds, the Met Office and the University of Exeter. For further information, please contact Sarah Reed, Press Officer, University of Leeds, on 0113 34 34196 or email s.j.reed@leeds.ac.uk

Soil and Water management

UF/IFAS web tool successfully measures farms’ water footprint. University of Florida, Institute of Food and Agricultural Sciences, 20 March, 2014
http://news.ifas.ufl.edu/2014/03/ufifas-web-tool-successfully-measures-farms-water-footprint/

Full Article

GAINESVILLE, Fla. – A new University of Florida web-based tool worked well during its trial run to measure water consumption at farms in four Southern states, according to a study published this month.

The system measures the so-called “water footprint” of a farm. In the broader sense, water footprints account for the amount of water used to grow or create almost everything we eat, drink, wear or otherwise use.

Researchers at UF’s Institute of Food and Agricultural Sciences introduced their WaterFootprint tool in the March issue of the journal Agricultural Systems, after using it to calculate water consumption at farms in Florida, Georgia, Alabama and Texas.

The WaterFootprint is part of the AgroClimate system, developed by Clyde Fraisse, a UF associate professor of agricultural and biological engineering. AgroClimate is a web resource, aimed primarily at agricultural producers, that includes interactive tools and data for reducing agricultural risks.
WaterFootprint, developed primarily by Daniel Dourte, a research associate in agricultural and biological engineering, estimates water use in crop production across the U.S.

WaterFootprint looks at a farm in a specific year or growing season and gives you its water footprint, Dourte said. With UF’s WaterFootprint system, users provide their location by ZIP code, the crop, planting and harvesting dates, yield, soil type, tillage and water management.

The tool also retrieves historical weather data and uses it to estimate the blue and green water footprints of crop production, Dourte said. Water footprints separate water use into green, which is rainfall; blue, from a freshwater resource; and gray, an accounting of water quality, after it’s been polluted.

Water footprints can be viewed at the farm level or globally.

For instance, if irrigation water is used to grow crops, it is essentially exported, Dourte said.

Once products are shipped overseas, the water used to grow the commodity goes with it, and it may not return for a long time – if ever, Dourte said. That’s a problem if the crop is grown in a region where water is scarce, he said.

But there’s often a tradeoff, he said. Global food trade saves billions of gallons of water each year, as food is exported from humid, temperate places to drier locales that would have used much more water to grow crops, Dourte said.

“The U.S. is a big agricultural producer. Products are exported and along with them, water goes to other countries,” he said.

For example, if you’re growing soybeans, you’re indirectly sending the water that was used to grow the crop. That amounts to about 270 gallons per pound of soybeans, Dourte said.

In addition to soybeans, coffee beans and shirts, if made from cotton, consume lots of water from the growing process to processing to shipping – with most of that water consumption resulting from evaporation and transpiration during crop growth, he said. But understanding the type of water resource being consumed, whether it’s from rainfall or irrigation, makes all the difference in assessing water resource sustainability.

Dourte co-authored the study with Fraisse and Oxana Uryasev, a UF research associate in agricultural and biological engineering.

The WaterFootprint tool can help not just growers, but world water managers as well, he said.

“We think this farm-specific, time-specific water footprinting tool is a unique resource that could be used by resource managers and educators to consider water resource sustainability in the context of agricultural production,” Dourte said. “We usually think of water management locally and regionally. But when you’re accounting for the water footprint of agricultural products, it allows you to see the global nature of that water.”

UF’s WaterFootprint calculator can be found at http://agroclimate.org/tools/Water-Footprint/.
Global food trade can alleviate water scarcity. Potsdam Institute for Climate Impact Research. Press release, 18 March 2014

Full Article

International trade of food crops led to freshwater savings worth 2.4 billion US-Dollars in 2005 and had a major impact on local water stress. This is shown in a new study by the Potsdam Institute for Climate Impact Research. Trading food involves the trade of virtually embedded water used for production, and the amount of that water depends heavily on the climatic conditions in the production region: It takes, for instance, 2.700 liters of water to produce 1 kilo of cereals in Morocco, while the same kilo produced in Germany uses up only 520 liters. Analyzing the impact of trade on local water scarcity, our scientists found that it is not the amount of water used that counts most, but the origin of the water. While parts of India or the Middle East alleviate their water scarcity through importing crops, some countries in Southern Europe export agricultural goods from water-scarce sites, thus increasing local water stress.

“Agriculture accounts for 70 percent of our global freshwater consumption and therefore has a huge potential to affect local water scarcity,” lead author Anne Biewald says. The amount of water used in the production of agricultural export goods is referred to as virtual water trade. So far, however, the concept of virtual water could not identify the regional water source, but used national or even global averages instead. “Our analysis shows that it is not the amount of water that matters, but whether global food trade leads to conserving or depleting water reserves in water-scarce regions,” Biewald says.

Combining biophysical simulations of the virtual water content of crop production with agro-economic land-use and water-use simulations, the scientists were able for the first time to determine the positive and negative impacts on water scarcity through international trade of crops, livestock and feed. The effects were analyzed with high resolution on a subnational level to account for large countries like India or the US with different climatic zones and relating varying local conditions regarding water availability and water productivity. Previously, these countries could only be evaluated through national average water productivity. “Local water scarcity is reduced through imports of agricultural goods, and therefore saving regional agricultural production particularly in parts of India, Morocco, Egypt and Pakistan. But scarcity is exacerbated by exports in parts of Turkey, Spain, Portugal, Afghanistan and the US,” Biewald says. Despite the fact that Europe alone exports virtual water in food crops worth 3.1 billion US-Dollars, the scientists found that international trade of food crops today globally accounts for water savings worth 2.4 billion US-Dollars.

The study, focusing on data of the year 2005, shows that trade has a considerable impact on agricultural production. Trade reduces global crop production and area due to regionally different livestock production efficiencies: one kilo of beef for instance can be produced with much less input feed in the US than in Africa, so it might be more economical for the world to have regions specializing in certain products and exporting them to others. “In contrast to popular perception, global food trade and the related virtual water flows indeed offer the possibility of relieving water
stress and making global water use more efficient,” co-author Hermann Lotze-Campen, co-chair of PIK’s research domain Climate Impacts and Vulnerabilities, says. “When it comes to the implementation of policy instruments which affect global trade – such as trade liberalization, import taxes or agricultural subsidies –, decision makers have to take into account the indirect effects on water as well. To connect international food trade to regional water scarcity can contribute to advance this debate.”


**For further information please contact:** PIK press office; Phone: +49 331 288 25 07; E-Mail: press@pik-potsdam.de; Twitter: @PIK_Climate

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**Agriculture Development**

**Agri Minister completes successful outreach in Mahaicony Creek.** GINA, 21 March, 2014

**Full Article**

Cognisant of the fact that farmers play an important role in the advancement of the agriculture sector and in keeping with the Ministry of Agriculture’s renewed thrust to modernise the sector, more emphasis is being placed on sustaining the industry.

In light of this, Agriculture Minister Dr. Leslie Ramsammy and a team of Technical officers and Heads of Departments from the Ministry and its sub-agencies embarked on an outreach in the Mahicony Creek.

During the exercise meetings were held with cash crop, livestock and rice farmers of Mora Point and Gordon Table on the way forward for the sector, and to address some of the deficiencies that at present exist.

Among the issues which affect residents are dam maintenance, irrigation water to farmlands and non-payment for rice by millers.

Minister Ramsammy, while addressing the residents alluded to the fact that while all is not well, the sector has come a far way. While underscoring the importance of agriculture, he said that Government will do all it can to ensure that farmers’ livelihoods are protected.

With respect to the withholding of cash to farmers by some millers, Minister Ramsammy announced that the Ministry of Agriculture, working with the Guyana Rice Development Board (GRDB), will
commence payment today to rice farmers for monies owned during the last crop which amounts to $300M.

He added that this move is to ensure that farmers can access their monies so that production can continue. “This is necessary as farmers have been the one suffering as a result of the negligence of some millers who are bent on exploiting the farmers…Our Government will never sit by and let this happen. No, we will do all in our power to ensure that all of the nation’s livelihoods are protected,” he said.

With respect to access to irrigation water to farmlands, Minister Ramsammy enlightened the residents of the new pump station which has commenced construction in the Pine Ground area. The team also visited the area where construction work is ongoing at a rapid pace. A request was made by farmers for a dam in the savannah area. The NDIA will look into this matter. “Other than interventions, investment will also be made to have access road which is presently a mud dam into an community road in the near future…I am also appealing to farmers to stop tampering with dams and drainage structures as you sometimes are your own worst enemies,” Minister Ramsammy said.

Good drainage is an essential ingredient in ensuring that favourable development takes place, and the NDIA has been working round-the-clock to ensure dams are passable at all times. In this vein, two new bridges will be constructed by the NDIA at Hyde Park and Jagdeo Canal shortly. (Agriculture Ministry)

### Agricultural sector growing and food import bill shrinking - Food Production

Trinidad and Tobago Government Information Service Limited (GISL), 20 March 2014

#### Full Article

The agricultural sector has expanded by 5.1 percent and the $4 billion food import bill has been reduced by two percent, according to as statement from the Ministry of Food Production.

In a statement on March 17, the Ministry noted the agricultural sector in Trinidad and Tobago has been experiencing a decline for the past twenty years. However, in the past three years the sector has benefitted from new and reconstructed access roads, improved irrigation systems, training in new technologies such as Aquaponics, refurbished and newly constructed fish landing sites, and the establishment of large farms, etc.

"These new strides have made a demonstrable impact on the agricultural sector, as evidenced by the food price inflation rate reading a significant low of 3.2 percent in January 2014," it said.

The statement continued, "In January 2013 the food price inflation rate was 13.8 percent, and fell sharply to a 24 month low of 3.0 percent in September 2013. The Ministry of Food Production is
now pleased to share that the contribution of agriculture to GDP has increased by 77 percent from 2009 to 2013.

"In addition, the agricultural sector has expanded by 5.1 percent in 2013 from 2014. Further, there has been a 2 percent reduction in food imports from 2010 to 2013," it added.

**Agriculture Ministry Gets Lab Equipment** by Andrea Braham, Jamaica Information Service, 20 March, 2014
http://jis.gov.jm/agriculture-ministry-gets-lab-equipment/

**Full Article**

A total of $67.9 million worth of laboratory equipment has been handed over to the Ministry of Agriculture and Fisheries, to boost its capacity for product testing and certification for compliance with international standards.

Most of the equipment, valuing approximately $60 million, will go to the Chemistry and Microbiology laboratories at the Ministry’s Veterinary Services Division in Kingston, while the rest will be installed at the Plant Virology and Plant Pathology laboratories at Bodles Research Station, in St. Catherine.

The items were presented on March 19, at a ceremony held at the Ministry of Agriculture and Fisheries Veterinary Services Division, in Kingston. They form part of the European Union Economic Partnership Agreement (EPA) Capacity Building Project, which is currently being administered by the Planning Institute of Jamaica (PIOJ).

Portfolio Minister, Hon. Roger Clarke, expressed gratitude for the new pieces of equipment and the role they will play to modernize the labs.

He said that ultimately, the goal is to receive ISO 17025 certification for the laboratories, which is important, as it addresses the internationally recognized standard under the provisions of the World Treaty Organisation (WTO) Agreement on technical barriers to trade.

“Projects like these, funded by the European Union, continue to assist us in achieving our objectives in keeping with the ministry’s aim of modernizing our entities and divisions, so as to enable us to effectively facilitate agricultural exports and ensure compliance to global food safety regulations,” Mr. Clarke said.

The items include: a rotavapor, refrigerator, safety cabinet, water softener, 10 desktop computers and an LC/MS 640 machine. The project also provides training, participation in international conferences, and study tours to benchmark the Ministry’s laboratories with its international counterparts.

“This equipment will enable us to concentrate samples for analysis; store fish and meat samples before analysis; provide a sterile environment for microbiological work being carried out, as well as analyse biotoxins, veterinary drugs and pesticides. We will also be able to do data gathering and analysis to produce reports for internal and external clients,” the Minister explained.
Director General, PIOJ, Colin Bullock, said an objective of the EPA Capacity Building Project is to create an enabling environment to support increased compliance of Jamaican agriculture and agribusiness exports with international standards, so that they can maximize on opportunities presented by large markets, such as the EU.

The Director General informed that through the project, training is being carried out four laboratories.

Mr. Bullock expressed deep appreciation to the EU for its contribution and commitment to long term development in Jamaica. “With this support Jamaica is on its way to achieving world class agricultural health and food quality systems, attaining a level of compliance which will enhance our domestic food security and international competitiveness,” he said.

He further noted that the equipment will go a far way in building the capacity and infrastructure of the facilities which support the export industry, in order to promote competitiveness and food security, which is one of the anticipated outcomes of the country’s National Export Strategy.

Head of the Economic Section, Delegation of the EU to Jamaica, Achim Schaffert, said the EPA should help to create a business and investment friendly environment where trade spurs growth and development.

He also pointed out that the EPA is a driver for change and much needed reforms. “It aims at ensuring a stable, predictable and transparent business environment, thereby helping CARIFORUM countries to attract more foreign direct investment and to make further progress with regional integration. It will also facilitate the access of firms to competitive, intermediary goods and services, which in turn will increase the corporate sector’s competitiveness,” he added.

The EU is the largest provider of grant assistance to Jamaica amounting to some €1.2 billion since 1975. There are currently 17 ongoing projects in Jamaica, which total €220.1 million ($28.9 billion), and five more in the pipeline.

**Global Donor Platform discusses rural development concepts.** Rural21: the international journal for rural development, 3 March 2014

**Full Article**

“Rethinking Rural Development__ Opportunities for new partnerships and territorial approaches in a changing rural environment” was the main topic at the Annual Assembly of the Global Donor Platform for Rural Development, held in Paris in January 2014.

Why are territorial approaches important? How do they compare to other approaches in rural development? What does the systems thinking concept have to offer for donors defining their priorities? These were just a few of the questions participants of the Global Donor Platform for Rural Development’s annual general assembly were discussing in Paris, France, in January this year. The two keynote speakers were Julio Berdegué and Ben Ramalingam.
Julio Berdegué, principal researcher at the Latin American Centre for Rural Development (RIMISP), focused his presentation on Brazil as an example of spatially uneven development processes. The map of development efforts in Brazil resembled a mosaic of completely different development stages. So the question needed to be asked how such complexity could possibly be steered. According to Berdegué, there were several reasons why territorial approaches had the capacity to come up with good suggestions. The concept presented by Berdegué looked at contemporary rural societies as being far more complex than they used to be.

Crafting and managing of linkages and interactions were considered key in the dynamics of socially inclusive and environmentally sustainable growth. Ultimately, territories were a socially constructed identity of actors and institutions where multidimensional relations came together. “The new ‘rurality’ simply cannot be understood, or transformed, using sectoral lenses or policies, and that is when territorial approaches come into play,” said Berdegué and added that functioning social coalitions assumed an important role in territorial development. Berdegué suggested that the Global Donor Platform could assist making territorial approaches work by supporting research, learning and South-South collaboration in critical instrumental areas like social capacity to plan, decide and act across one-dimensional boundaries, co-ordination across policy boundaries, and sustaining development initiatives beyond political and administrative cycles.

Ben Ramalingam, the author of “Aid on the Edge of Chaos: rethinking international cooperation in a complex world”, took a very different route. He pleaded with the audience to get out of the box and find new ways to comprehend the longstanding problems of development. According to Ramalingam, it was absolutely inevitable for development professionals to start taking more risks in their programming, and by doing so they should consider applying systems thinking to rural development issues. To Ramalingam, development and humanitarian aid efforts were dominated by certain mental models determining how development agencies described, explained and justified their endeavours.

Through planning on the basis of considerable amounts of data, for example, they assumed the nearer future to be somewhat predictable. Conceptualisation of development and disaster recovery activities were founded on unreasonably simplified cause-and-effect scenarios. “We think of humans as rational, of change as linear, and of relationships as atomised. The most useful of those principles are for describing foreseeable machine work in stable environments. That is, however, not at all the case for development reality. Moreover, these assumptions are fundamentally mismatched to the realities of rural development,” said Ramalingam. Using a notion by Robert Chambers that in both agricultural and social sciences, complexity and diversity were underperceived and therefore undervalued, Ramalingam described a history of engaging with these principles in rural development. There was clear resonance between the principles of territorial approaches and a complex systems approach – how could complexity help ensure the policy take-up didn’t outrun the scientific basis?

Second day for members only
The second day of the annual general assembly was meant for close interaction of Platform members, focusing on networking, sharing of achievements in 2013 and planning the coming year’s
activities. It included a discussion on the post-2015 development agenda and possible ways for members to influence the process. To this effect, Robin Bourgeois, Senior Foresight and Development Policies Expert at the Global Forum of Agricultural Research (GFAR), presented findings of the Platform-commissioned “Prospects for agriculture and rural development aid in the post-2015 framework” study. Responding to questions of Platform members, the researcher stressed the future importance of building or enforcing comprehensive developing coalitions.

**Food Security**

**Invest more in agriculture.** Barbados Advocate, 18 March, 2014  

**Full Article**

A CALL has been made for Barbados to invest more in its agricultural sector, thus positioning it at the forefront of the island’s economic development.

The appeal has come from Barbados’ Ambassador to China, Chelston Brathwaite, who stated that if Barbados was to move forward, “we have to put money in agriculture”.

He made these comments in Xiamen, China, following a tour of the Yinlu agro-processing company. Yinlu, a company started by six persons from the Matang Village, Xiamen, in 1985, with a 30 000 RMB (US $5 000) investment, has grown into a multimillion dollar, vertically integrated enterprise, providing jobs for more than 15 000 persons in its five production bases in Xiamen, Shandong, Hubei, Anhui and Sichaun.

The company utilises agricultural output from its surrounding community, under a Co-operative arrangement to produce peanut milk and Congee and protein beverages, and has partnered with international brand Nestle to produce its coffee lattes and smoothies.

Taking note of the company’s operating model, Government’s support and the incentives from which the company has benefited, Ambassador Brathwaite said: “There are lessons to be learnt here, and what has been done in this country [China] is exactly what needs to be done in Barbados.”

Yinlu, with total annual output expected to reach Six million tons by 2015, and its annual sales of 1 billion RMB, has won numerous awards and accolades, and has emerged as one of China’s top 10 enterprises in the canned food and beverages industry. And, according to Brathwaite, this suggests that “finding a niche and finding a need are key”.

The visit to Yinlu is part of the three-week trade and economic seminar, arranged for a 20-member Barbadian delegation of public and private sector enterprises by Beijing’s Academy for International Business Officials. (TB/BGIS/BIDC)
National Budgets – Agriculture - BELIZE

Bettering People, Building Belize - A Budget For All. Budget speech for fiscal year 2014/2015
Hon. Dean Barrow, Prime Minister and Minister of Finance and Economic Development
Belmopan, Friday March 7, 2014

ECONOMIC ENVIRONMENT
Mr. Speaker, with the global and national setbacks of 2013 behind us, the outlook for 2014 is full of promise. The Central Bank is projecting a GDP growth of 2.0 percent in 2014 as the primary sector returns to positive output, construction and tourism hold steady, and Government’s capital spending program expands.
Grain production should see a considerable rebound during the year and output of the major export crops is also anticipated to rise. Improved acreage practices in the sugarcane industry should increase sugar production, and already - early in this crop - the factory has set a one-day record for the amount of cane processed. Citrus output is also expected to bounce back as further progress, including by way of additional Government/BAHA investment, is made in the containment of citrus greening. Moderate increases are projected for output of shrimp and whole fish, both of which did well last year.

Information & Communication

ImpactLite survey tool improves understanding of on-farm reality. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), News blog, 18 March 2014

Full Article

Explore a new tool and data sets related to on-farm resources, farm management strategies, farm productivity and household economics at the household farm level.

Agricultural research is many times about the analysis of data, hence the data collection process is a major factor in the success of a study. Comprehensive data sets can really help support what we aim to achieve in the end: improved livelihoods for farmers.

The Integrated Modelling Platform for Mixed Animal Crop systems (IMPACT) was developed to encourage data sharing by using standard protocols, and allowing tools to be linked to facilitate evaluations of various farming systems. There was however a need to further improve the tool, to make it easier and more effective to use, as it took considerable time to complete an interview.

Improving the modelling platform
With this in mind, our Data and Tools team commissioned the International Livestock Research Institute (ILRI) the task to design IMPACTlite tool for household characterization.
Led by scientists from ILRI and CCAFS, IMPACTlite was designed and implemented on field. The survey was carried out across 15 of our benchmark sites in twelve countries across East Africa, West Africa and South Asia.

This tool helps capture the diversity of farming activities and characterize the main agricultural production systems. It is really useful to anyone with the ambition to better understand farmers' production systems and their dynamics. In addition to that the IMPACTlite tool provides a unifying framework for collecting data.

The datasets that can be downloaded include detailed information and data about household composition, agriculture production systems and activities. They also include information about land and labour allocation within households, farmers’ income from on-farm and off-farm activities as well as household consumption on food and assets, to mention some.

A gender-lens on control over resources, land ownership and allocation of activities has also been added to the datasets.

Researchers can easily download the data and figures that have been prepared. It is also possible to replicate the survey in other sites, which can then be used to compare with existing data. Researchers could develop other surveys building on the existing IMPACTlite existing tool and data.

Silvia Silvestri, scientist in Environment and Livelihoods and one of the team members involved in IMPACTlite, asserts that the dataset from IMPACTlite represents an important source of information for the scientific community:

"The IMPACT-Lite will allow us to capture within-site variability on key performance and livelihood indicators that could be used for a wide range of analysis" she says. "It represents a great example of cross-sites and cross-teams collaboration, together with an excellent learning opportunity about data analysis and household modelling."

All about team work
The IMPACTlite team from ILRI gathered secondary information for each of the research sites with the assistance and support from local site coordinators. Well-organized partnerships and collaborations were really the key to IMPACTlite's success.

Visit the platform to start downloading data and supporting materials.
FAO initiative brings global land cover data under one roof for the first time. FAO, 17 March 2014

Full Article

New database most-reliable global view of planetary land cover assembled to-date

17 March 2014, Rome - A new FAO database released today collects previously scattered and unharmonized land cover information from around the globe into one centralized database, marking a major improvement in information regarding the physical characteristics of the Earth's surface.

Up to now, one of the major challenges to getting a good global overview of land cover - e.g. how much land is covered by croplands, trees or forests, bare soils, etc. - has been the fact that different countries and organizations go about identifying, measuring and recording such data in diverse ways.

But for FAO's new Global Land Cover SHARE database (GLC-SHARE), data pulled from multiple sources and partners was quality-controlled and harmonized using internationally accepted definitions and standards, bringing a wealth of country-level information into one consolidated dataset spanning the entire planet.

Applications of the new GLC-share database include monitoring of global land cover trends, evaluating the suitability of land for various uses, assessing the impact of climate change on food production, and land-use planning.

Sustainable land management crucial

"A strong understanding of our planet's land cover is essential to promoting sustainable land resources management - including agricultural production to feed a growing population - that makes efficient use of increasingly scarce natural resources yet safeguards the environment," said John Latham, of FAO's Land and Water Division.

"This update to our understanding of the Earth's land cover comes at a crucial time," he added. "It will be a valuable tool in assessing the sustainability of agriculture, and for supporting evidence based-sustainable rural development and land use policy contributing to reducing poverty, enabling of inclusive and efficient agricultural and food systems and increasing resilience of livelihoods. GLC-SHARE will also help us understand how climate change and climate variability are impacting key natural resources, as well as food production."

A surging global population and growing demand for food pose major challenges for agriculture, which in the years to come will need to produce more food using fewer natural resources while at the same time coping with a changing climate.

FAO estimates that world food production will need to increase by 60 percent by 2050, for the most part on lands that are already being cultivated.

FAO's new database includes eleven global land cover layers:
- artificial surfaces (which cover 0.6 percent of the Earth's surface)
- bare soils (15.2 percent)
- croplands (12.6 percent)
- grasslands (13.0 percent)
- herbaceous vegetation (1.3 percent)
The Caribbean Community (CARICOM) will focus over the next two years on unveiling the Single Information Communication Technology ICT Space as the digital layer of the CARICOM Single Market and Economy (CSME). Chairman of the Conference of Heads of Government, Dr. the Hon. Ralph Gonsalves, Prime Minister of St. Vincent and the Grenadines, said Tuesday evening that a Roadmap to this end would be developed and presented to the Heads of Government Meeting in July 2015.

The Community’s efforts to boost development through the use of (ICT) would be undertaken in tandem with the Reform Process for the years 2014-2019, Dr. Gonsalves said at the conclusion of the 25th Intersessional Meeting.

Briefing the media from the Buccament Bay Resort in St. Vincent and the Grenadines where the Meeting was held, Dr. Gonsalves, said that the Roadmap would include elements such as spectrum management, bringing technology to the people and transforming them to digital citizens, diaspora re-engagement, cyber security and public-private partnerships.

Utilising ICT for the Region’s sustainable development was the first substantial item on the Heads’ agenda following the formal opening session on Monday. The discussions were led by Dr. the Rt. Hon Keith Mitchell, Prime Minister of Grenada, and Lead Head of Government on ICT in the CARICOM Quasi Cabinet. He spoke under the chapeau of `ICT for CARICOM Transformation’.

Developing a Single CARICOM ICT Space to enhance the environment for investment and production was identified as one of the key areas that the Community should undertake in the short-term to become competitive.

As envisioned by its framers, the Single ICT Space will encompass the management of Regional information, human resources, legislation and infrastructure in the sector to elicit maximum benefit for the Region’s populace.

The Single ICT space and the Region’s Digital Agenda 2025 will be constructed on the foundation of the Regional Digital Development Strategy (RDDS) which was approved in 2013, and will also have inputs from the Commission on the Economy and the Post-2015 Agenda.

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Upcoming Events

2014 International Year of Family Farming (IYFF). FAO
Description
The 2014 International Year of Family Farming (IYFF) aims to raise the profile of family farming and smallholder farming by focusing world attention on its significant role in eradicating hunger and poverty, providing food security and nutrition, improving livelihoods, managing natural resources, protecting the environment, and achieving sustainable development, in particular in rural areas. The goal of the 2014 IYFF is to reposition family farming at the centre of agricultural, environmental and social policies in the national agendas by identifying gaps and opportunities to promote a shift towards a more equal and balanced development. The 2014 IYFF will promote broad discussion and cooperation at the national, regional and global levels to increase awareness and understanding of the challenges faced by smallholders and help identify efficient ways to support family farmers

March 2014
The United Nations’ (UN) World Water Day
Date: 22 March 2014
2014 World Water Day (WWD) theme is "Water and Energy" and aims to raise awareness of the inter-linkages between water and energy. 2014 World Water Day (WWD) theme is "Water and Energy" and aims to raise awareness of the inter-linkages between water and energy.
Global Water Partnership-Caribbean (GWP-C) activities

May 2014
Building Resilience for Food and Nutrition Security. IFPRI 2020 Conference
Date: 15-17 May 2014
Location: Addis Ababa, Ethiopia
Website: http://www.2020resilience.ifpri.info/

June 2014
The International Seed Testing Association (ISTA) Annual Meeting
Date: 16-19 June 2014
Location: Edinburgh, UK
Website: http://seedtest.org/en/annual-meeting-2014--content---1--1409.html

July 2014
50th Caribbean Food Crops society (CFCS) Annual Meeting, United States Virgin Islands.
Date: 5-12 July 2014
Website: http://cfcs.eea.uprm.edu/

XII World Congress of Computers in Agriculture and Natural Resources
Date: 27- 30 July, 2014
Location: San Pedro, San José, Costa Rica
Description
This congress provides a forum for agriculture related professionals to exchange information on applications and developments in the use of Information Technologies. It covers a wide array of topics. These include new applications of well established and understood technologies to innovative and
entrepreneurial applications of emerging technologies, in addition to issues related to policy and knowledge dissemination. Contributions from various countries will allow a broadened perspective for all attending. This congress is sponsored by International Network for Information Technology in Agriculture and the University of Costa Rica (UCR).

**Abstracts submission deadline:** 15 February, 2014


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**Conference on Ecological and Ecosystem Restoration 2014**

CEER is a Collaborative Effort of the leaders of the National Conference on Ecosystem Restoration (NCER) and the Society for Ecological Restoration (SER).

**Date:** 28 July - 1 August, 2014

**Location:** New Orleans, Louisiana, USA

**Website:** [http://www.conference.ifas.ufl.edu/CEER2014/](http://www.conference.ifas.ufl.edu/CEER2014/)

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**August 2014**

**XI International Congress on Management of Amazonian and Latin American Wildlife**

St. Augustine, Trinidad and Tobago,

**Date:** 17 - 22 August 2014

**Location:** St. Augustine, Trinidad and Tobago,

Theme: “Alternative Sustainable Conservation & Utilization Methods for Neo-tropical Animals”

**Website:** [http://xicimfauna.org/](http://xicimfauna.org/)