

CORN

CIMMYT send largest ever seed shipment to revitalize agriculture in Haiti. By Jennifer Johnson, International Maize and Wheat Improvement Center, 28 June 2017.

<http://www.cimmyt.org/cimmyt-sends-largest-ever-seed-shipment-to-revitalize-agriculture-in-haiti/>

Full article

MEXICO CITY (CIMMYT) – The International Maize and Wheat Improvement Center (CIMMYT) has grown 150 tons of renewed, improved maize seed that will be sent to Haitian farmers to help jump-start the country’s seed sector, improve local food security and decrease malnutrition. This will be the largest seed shipment to any country in CIMMYT’s history.

In 1998, CIMMYT, together with the Organization for the Rehabilitation of the Environment, introduced a new quality protein maize variety in Haiti. Named “Hugo” for CIMMYT maize breeder Hugo Córdova, the variety grew well under the island’s agro-ecological conditions and can decrease malnutrition and stunting among children that consume it. The product of decades of maize research in Haiti and Latin America, Hugo quickly became a favorite among farmers, but over time lost its genetic purity due to a lack of certified seed production and yields began to drop.

Now, CIMMYT is working to help Haiti build their seed sector from the ground up, from developing improved seed to replace old varieties to providing capacity development at every level of the maize seed value chain, with incredible results.

Haiti is the poorest country in Latin America and the Caribbean, with the lowest maize yields in the continent, and roughly 50 percent of the population is undernourished. These conditions have been exacerbated by a crippling earthquake in 2010, what is emerging as a longstanding drought, and devastating Hurricane Matthew in 2016 that affected 2 million people. According to the [United States Agency for International Development](#) (USAID), Haiti cannot achieve economic growth and national stability if food security is not addressed.

However, improving food security in Haiti is complicated by the fact that there are no formal seed companies, said Alberto Chassaigne, maize seed system specialist at CIMMYT.

“Farmers often sell their entire crop at harvest, leaving nothing for the next season, forcing them to plant simple maize grain that they buy from local markets rather than certified seed, drastically reducing yield over time,” said Chassaigne.

In 2015, CIMMYT launched the Mayi Plus initiative with the support of USAID-Haiti Feed the Future (FTF) to identify the most promising varieties for the future of maize farming in Haiti. The project would also work to produce a “renewed” Hugo to farmers in Haiti with greater genetic purity and yield, and provide capacity development to Haitians in the production and processing of seed of these improved varieties. This renewed Hugo, known as “Hugo Plus,” can produce up to

seven tons per hectare, in comparison to traditional varieties currently planted in Haiti that produce on average less than one ton per hectare.

Through a systemic series of maize trials, scientists also found that new CIMMYT germplasm is already available that outperforms any other maize available in Haiti in both irrigated and rain-fed conditions. These resilient varieties, named “Mayi Plus I” and “Mayi Plus II” are currently under multiplication to be introduced to Haitian farmers as soon as possible.

Four tons of renewed Hugo were produced in 2015, 2.7 tons of which were produced in Haiti.

In the winter cropping season of 2016-2017, CIMMYT produced 150 tons of renewed Hugo seed in Mexico to send to Haiti, 50 percent more than the 100 tons they had planned to send. “This is the largest seed shipment ever sent by CIMMYT,” said Arturo Silva Hinojosa, leader of the International Maize Improvement Consortium in Latin America. “An additional 15 tons of seed will be harvested in Haiti, up from 0-3 tons in previous years.”

20 of the 150 tons of renewed “Hugo Plus” have already arrived in Haiti, where they will be sold to farmers at affordable prices in “agricultural input boutiques” established by FTF and partners. The remaining 130 tons will be used by CIMMYT and FTF to develop a strategic seed reserve in Haiti that will serve as a backup in case of natural disasters so that the country has immediate availability of seed stock for re-planting. The CIMMYT team in Haiti is currently working to find the best locations to store the strategic maize seed reserve.

To ensure that the genetic purity of renewed Hugo and other improved maize varieties will be maintained, CIMMYT is providing capacity development to help start Haiti’s seed sector from scratch. Project partners identified entrepreneurs interested in establishing a seed enterprise, and CIMMYT has been providing these entrepreneurs with in-depth training in seed processing and marketing, guidance on the infrastructure for a seed processing plant, and contacts throughout the world of equipment appropriate for Haitian conditions.

In addition, CIMMYT established a two-week course in seed production and seed processing with a FTF partner to train 13 Haitian technicians, who will now be able to train other Haitians interested in working in the country’s maize seed sector. A training manual is being prepared in French and Creole, and replication workshops will be conducted in target food security corridors of USAID in Haiti.

“This improved seed, and a self-sustaining seed sector capable of producing and marketing it, can contribute towards improved foreign exchange savings and will create local employment,” said Huntington Hobbs, former leader of strategic planning and research coordination for CIMMYT’s MasAgro project. “Increased maize production will bolster Haiti’s economy by providing feed for emerging industries in poultry and egg production, as well as the main staple of Haitian food security.”

CIMMYT researchers returned to Haiti in early June to advise seed companies on the installation of a seed processing plant, as well as to supervise trials and evaluations of new varieties and coordinate trainings in Haiti with trainers trained last February in Mexico.

In order to introduce local farmers to the new Hugo Plus maize variety and recognize CIMMYT's contribution to Haiti's food security through the Mayi Plus project, the USAID-Haiti Feed the Future Chanje Lavi Plante (CLP) project held a special event on June 21, 2016. The event was attended by farmers, agricultural input store managers and local partners, as well as staff from the Haitian Ministry of Agriculture and USAID who thanked CIMMYT for the recent 20 ton seed shipment.

“Hugo Plus is the result of many years of applied research work of CIMMYT in Haiti, and is a valuable alternative to the current varieties available in Haiti with such low yields,” said Micheal Wyzan, head of the office of economic growth and development at the Haiti mission of USAID. “We highly appreciate the fruitful collaboration between CIMMYT and the CLP project that allow farmers to increase their maize yields in the region.”

In his address to the audience, Alain Thermil, main liaison of Haiti's Ministry of Agriculture with USAID, stated that, “CIMMYT is a very important organization in the world, and it is vital to Haiti that we establish and maintain a close relationship with CIMMYT.”

Jean Robert Estime, director of the CLP project in Haiti, agreed. “Through CIMMYT interventions, good quality seed is now available to farmers in Haiti. We are very grateful to CIMMYT, a great international organization with a mandate to do research on maize and wheat worldwide that is doing very important work in Haiti.”

COCONUT

Coconuts could be Barbados' next cash crop – officials. [Barbados Today](https://www.bahamasnews.com/bahamas-news/2017/06/28/coconuts-could-be-barbados-next-cash-crop-officials/) on June 28, 2017.
<https://www.bahamasnews.com/bahamas-news/2017/06/28/coconuts-could-be-barbados-next-cash-crop-officials/>

Full article

Government is pushing ahead with plans to develop a viable coconut industry here.

During the first in a series of stakeholder meetings at the Samuel Jackman Prescod Polytechnic this morning, Chief Economist in the Ministry of Agriculture Suzette Edey-Babb told the gathering of mostly planters that the industry had the potential to generate substantial income.

However, she said Government was taking “a value chain approach” to its development “by meeting the players in each sector and finding out what they need, so that we can better develop policies to govern it”.

Currently, there are said to be over 60 coconut water vendors in Barbados.

And amid growing interest in planting the crop for commercial purposes, officials say more businesses are using coconut-derived products in their operations.

However, the Caribbean is faced with numerous challenges, including high input and labour costs.

This morning Ansari Hosein, the local representative for the Caribbean Agricultural Research and Development Institute (CARDI), also said the region’s aging population was a factor, so too its “limited coconut gene pool, lack of quality planting material, prevalence of diseases, inadequate research and development, and the lack of an integrated approach to developing the sector”.

In response to those concerns, Senior Agricultural Officer with the Plant Quarantine Department Michael James singled out Brazil as a potential source market for planting materials.

“We wrote to our counterparts in that country to find out what diseases and insects they were grappling with in their coconut industry, and our aim is to ensure that we do not create a situation where some of those pests end up over here.

“Any area you want to bring coconut plants from must be free from lethal yellowing, and if you want to bring in tissue culture or nuts you must ask permission from the Plant Quarantine Department first. If not, we will either send the plants back or destroy them,” he warned.

Planters were also advised that since coconut palms took a long time to mature — three to six years in the case of dwarf coconuts and six to ten years for the taller ones — it would make sense to intercrop them with other commodities like sweet potatoes and hot peppers over a seven-year period.

Over the next two weeks the ministry will also meet with coconut vendors and processors.

Insight given into coconut industry project. The Barbados Advocate, 29 June 2017

<https://www.barbadosadvocate.com/news/insight-given-coconut-industry-project>

Full article

THE demand for coconut products is growing strong, but Ansari Hosein, the Caribbean Agricultural Research and Development Institute (CARDI) Country Representative for Barbados, warns that as that demand increases, so do the challenges associated with coconut production.

He made the comments while delivering opening remarks at the start of a coconut growers stakeholder meeting, held yesterday at the Samuel Jackman Prescod Polytechnic. It is one of the efforts being made to help chart a path forward for the local coconut industry as part of the Coconut Industry Development for the Caribbean Project, which is being funded by the European Union and executed by CARDI.

“Some of the challenges include the high cost of inputs and labour, an ageing population, a limited coconut gene pool, several pests and diseases, lack of quality planting material, inadequate coconut usage and development, antiquated infrastructure, poor agronomic practice, fragmented industry organisational structure and lack of an integrated approach for transforming the industry at the regional and national levels,” he said.

Hosein said that to combat those challenges, there is a need for policy intervention and broad-based stakeholder engagement as well as investment from the public and private sectors. With that in mind, he said the project being undertaken in Barbados to advance the industry is aimed at building the local coconut industry, using the private sector stakeholders to drive the process, while the Government and institutions such as CARDI would provide support to assist the development, as has been done in several other countries.

He made the point while speaking to the current status of the local coconut industry. According to him, research shows that there are over 60 coconut water vendors selling the commodity on the roadway and there are a number of people who are interested in planting coconuts on a commercial scale. Moreover, he said several businesses are already using coconut in their products.

However, he said, one of the key needs of the industry is high yielding planting material. Given that, he said the Ministry of Agriculture is evaluating local germplasm and are also looking at overseas sources for the germplasm as well.

His comments came as he outlined that some of the issues stakeholders have identified are also a challenge for the industry, including rats, a lack of climbing technology, nursery development and product development. In respect of the latter, he said assistance is being sought from other institutions such as the Barbados Investment and Development Corporation and the Barbados Agricultural Development and Marketing Corporation.

Hosein revealed that some of the activities planned to help develop the industry include the establishment of six observation trials and germplasm banks of local high yielding varieties, in order to provide planting materials to farmers; training in nursery management and coconut production; and assistance to vendors and processors to enhance their operations. The CARDI official added that plans are on stream to develop a national stakeholder committee to lead the development of the industry and to conduct a value chain analysis of the industry.

Additionally, he said consideration is being given to importing new dwarf varieties from Brazil and other countries. (JRT)

PLANT BREEDING

Foundation for Food and Agriculture Research launches multi-million-dollar international effort to accelerate crop development. International Maize and Wheat Improvement Center (CIMMYT), 29 June 2017.

http://www.cimmyt.org/press_release/foundation-for-food-and-agriculture-research-launches-multi-million-dollar-international-effort-to-accelerate-development-of-crops-of-the-future/

Full article

WASHINGTON — The Foundation for Food and Agriculture Research (FFAR), a nonprofit organization established through bipartisan congressional support in the 2014 Farm Bill, today joined with Bayer, Biogemma, KWS, FAPESP, Precision Plant Sciences, Rijk Zwaan and the International Maize and Wheat Improvement Center (CIMMYT) to launch the Crops of the Future Collaborative, a new consortium that will accelerate crop breeding to meet global food demand 20-50 years in the future. FFAR’s initial \$10 million commitment is expected to leverage significant additional investment from partners.

With the world population projected to reach 9.8 billion people by 2050, the Crops of the Future Collaborative will accelerate crop breeding through an innovative public-private model that pools proprietary knowledge, financial resources, and technology to carry out crop-specific research initially focusing on maize, leafy greens and wheat and small grains. The consortium will hone in on how a crop’s genetic information can yield traits needed to meet global nutritional demands in a changing environment. Participants will see their investments multiplied by a “one-to-many” matching model.

“The new Crops of the Future Collaborative brings together the resources of leading agriculture companies and research organizations to meet future food system challenges,” said Sally Rockey, Ph.D., Executive Director of the Foundation for Food and Agriculture Research. “We enthusiastically welcome the initial Crops of the Future Collaborative partners who share the Foundation’s vision for increasing public-private collaboration and global investment in food and agriculture sciences.”

This collaboration will accelerate discoveries in ways not possible in the past by building on recent advances that have greatly enhanced scientists’ ability to study and improve specific crop traits. Recent progress includes advances in gene editing, crop genome sequencing and phenomics, or the study of the relationship between a plant’s genetic makeup, its environment, and its performance.

“This collaborative research with public and private partners will build on investments already made in agriculture research so that farmers like me see the return on those investments through improved plants in our fields,” said Pam Johnson, past president of the National Corn Growers Association and member of the FFAR board.

The new consortium will increase capacity to breed crops with specific traits, leading to plants that are adapted to different environments. Target crop characteristics might include enhanced nutritional qualities or ability to withstand environmental challenges such as drought, heat, or flooding. Ultimately, knowledge generated by the Collaborative will be publicly available through scientific publications and informational platforms, benefiting public and private crop breeding efforts.

“Rijk Zwaan is keen to actively contribute to the world’s food supply and stimulate vegetable consumption. Joining the Crops of the Future Collaborative, with leafy vegetables as one of the focus crops, can help us achieve this mission,” said Kees Reinink, Ph.D., Managing Director of Rijk Zwaan. “Combining our strengths with partners in R&D is an important part of our strategy. Together, we can accelerate the further development of better vegetables.”

“As a Founding Partner, Precision Plant Sciences is particularly pleased to begin working with our fellow Crops of the Future Collaborative organizations,” said Fayaz Khazi, Ph.D., president of Precision Plant Sciences. “Together, we will solve problems like how to pair new ideas with the most relevant technologies, and this will help us all create products that are not just better, but game changing — even life changing. Through participation in the Crops of the Future Collaborative, Precision further solidifies its commitment to this community and to translating scientific knowledge into products that improve the health of our planet and all its inhabitants.”

“At FAPESP we are happy to be part of the Crops for the Future initiative, to foster research in agricultural topics of great relevance for Brazil, and the world, said Carlos Henrique de Brito Cruz , Ph.D., FAPESP Scientific Director. “Working together with outstanding partners such as FFAR and other agencies we expect to advance the pace of discovery.”

“Joining the Crops of the Future Collaborative is a great opportunity to increase our collective knowledge of traits and genes function to greatly accelerate development of crops in a sustainable way,” said Alain Toppan, Ph.D., CEO of Biogemma. “Understanding traits is a major target in Biogemma and its shareholders’ global strategy to develop efficient crop solutions.”

“Solving the challenges farmers face worldwide in growing healthy, abundant crops in a sustainable manner will require commitment and collaboration from experts around the world,” said Catherine Feuillet, senior vice president, Crop Science, a division of Bayer. “With the Crops of the Future Collaborative, the Foundation for Food and Agriculture Research provides a unique framework to develop public-private collaborations for accelerating innovation that can propel the next green revolution for major crops, and Bayer is proud to support it.”

Organizations interested in joining the Crops of the Future Collaborative are encouraged to contact the Foundation for Food and Agriculture Research.

PEST MANAGEMENT SOFTWARE

Agriculture ministry workers trained to use pest management software. Jamaica Observer, 29 June 2017.

http://www.jamaicaobserver.com/news/agriculture-ministry-workers-trained-to-use-pest-management-software_103215?profile=1373

Full article

THE agriculture industry is seemingly better positioned for economic growth following a workshop using specialised software to aid in the management of the beet armyworm (BAW).

More than 45 technical personnel within the Ministry of Industry, Commerce, Agriculture and Fisheries (MICAFA) have benefited from a special training utilizing the Open Data Kit (ODK) software.

ODK is an open source software which uses smartphones and/or tablets to capture and upload, in real time, data using customizable digital forms to a cloud-located database.

The training was executed in collaboration with the USAID-funded Jamaica Rural Economy and Ecosystems Adapting to Climate Change II project (Ja REEACH II) and the Agricultural Land Management Division of MICAFA on June 14 at the Bodles Agriculture Research Station in Old Harbour, St Catherine.

The software is expected to improve real-time data collection, analysis and reporting to advance integrated pest management in beet armyworm and other pest threats which impact agriculture production.

The training will also reportedly equip Bodles Agriculture Research Station and Rural Agricultural Development Authority with the capability to use the mobile platform to monitor targeted pest incidences, and with climate information, develop forecasting models to help predict pest outbreaks. This will allow for the rapid communication of pre-emptive actions to stakeholders to protect their on-farm operations.

In May, the Rural Development Agricultural Authority's assessments of fields in the affected areas, which include Comma Pen and Bull Savannah in St Elizabeth, and other areas in south Manchester, indicated that there has been a total loss of 54 hectares of crop since the outbreak started in March. This is reportedly valued at \$111 million.

Since the 1990s, several major pests have impacted agricultural production in Jamaica, namely, BAW in scallion and onion, Leaf Hopper in dasheen, and Leaf Rust in coffee, among others, causing hundreds of millions of dollars in losses to farmers.

CLIMATE CHANGE

Europe Stands by Caribbean on Climate Funding. Caribbean Climate, 26 June 2017.

<https://caribbeanclimateblog.com/2017/06/26/europe-stands-by-caribbean-on-climate-funding/>

Full article

A senior European Union (EU) official in the Caribbean said Europe is ready to continue the global leadership on the fight against climate change, including helping the poor and vulnerable countries in the region.

Underlining the challenges posed by climate change, Head of the European Union Delegation to Barbados, the Eastern Caribbean States, the OECS, and CARICOM/CARIFORUM, Ambassador Daniela Tramacere made it clear that the EU has no plan to abandon the extraordinary Agreement reached in Paris in 2015 by nearly 200 countries.

“The challenges identified in the Paris Agreement are of unprecedented breadth and scale.” – Ambassador Daniela Tramacere

“Climate change is a challenge we can only tackle together and, since the beginning, Europe has been at the forefront of this collective engagement. Today, more than ever, Europe recognizes the necessity to lead the way on its implementation, through effective climate policies and strengthened cooperation to build strong partnerships,” Tramacere said.

“Now we must work as partners on its implementation. There can be no complacency. Too much is at stake for our common good. For Europe, dealing with climate change is a matter of political responsibility and multilateral engagement, as well as of security, prevention of conflicts and even radicalization. In this, the European Union also intends to support the poorest and most vulnerable.

“For all these reasons, the European Union will not renegotiate the Paris Agreement. We have spent 20 years negotiating. Now it is time for action, the world’s priority is implementation,” she added.

The 2015 Paris deal, which seeks to keep global temperature rises “well below” 2 degrees C, entered into force late last year, binding countries that have ratified it to draw up specific climate change plans. The Caribbean countries, the African, Caribbean and Pacific (ACP) countries and the EU played a key role in the successful negotiations.

On June 1 this year, President Donald Trump said he will withdraw the United States from the landmark agreement, spurning pleas from U.S. allies and corporate leaders.

The announcement was met with widespread dismay and fears that the decision would put the entire global agreement in peril. But to date, there has been no sign that any other country is preparing to leave the Paris agreement.

Tramacere noted that together with the global 2030 Sustainable Development Agenda, the Paris Agreement has the potential to significantly accelerate the economic and societal transformation needed in order to preserve a common future.

“As we address climate change with an eye on the future, we picture the creation of countless opportunities, with the establishment of new and better ways of production and consumption, investment and trade and the protection of lives, for the benefit of the planet,” she said.

“To accelerate the transition to a climate friendly environment, we have started to strengthen our existing partnerships and to seek and find new alliances, from the world’s largest economies to the most vulnerable island states. From the Arctic to the Sahel, climate change is a reality today, not a remote concept of the future.

“However, to deliver the change that is needed and maintain the political momentum, it is vital that the targets pledged by countries and their adaptation priorities are now translated into concrete, actionable policies and measures that involve all sectors of the economy. This is why the EU has decided to channel 40 percent of development funding towards climate-related projects in an effort to accelerate countries’ commitment to the process,” Tramacere said.

The EU has provided substantial funding to support climate action in partner countries and Tramacere said it will also continue to encourage and back initiatives in vulnerable countries that are climate relevant as well as safe, sustainable energy sources.

For the Caribbean region, grant funding for projects worth 80 million euro is available, Tramacere said, noting that the aim is twofold: to improve resilience to impacts of climate change and natural disasters and to promote energy efficiency and development of renewable energy.

“This funding will be complemented by substantial financing of bankable climate change investment programmes from the European Investment Bank and other regional development banks active in the region. With the Global Climate Change Alliance (GCCA) instrument, the European Union already works with agencies in the Caribbean such as the Organization of Eastern Caribbean States (OECS) or the Caribbean Climate Change Community Centre (CCCCC),” Tramacere said.

In November this year, countries will gather in Bonn for the next UN climate conference – COP23 – to continue to flesh out the work programme for implementing the Paris Agreement.

Next year, the facilitative dialogue to be held as part of the UN climate process will be the first opportunity since Paris to assess what has been done concretely to deliver on the commitments made. These are key steps for turning the political agreement reached in Paris into reality.

“The challenges identified in the Paris Agreement are of unprecedented breadth and scale. We need enhanced cooperation and coordination between governments, civil society, the private sector and other key actors,” Tramacere said.

“Initiatives undertaken not only by countries but also by regions, cities and businesses under the Global Climate Action Agenda have the potential to transform the impact on the ground. Only together will we be able to live up to the level of ambition we have set ourselves – and the expectations of future generations. The world can continue to count on Europe for global leadership in the fight against climate change.”

Caribbean countries are highly vulnerable and a significant rise in global temperatures could lead to reduced arable land, the loss of low-lying islands and coastal regions, and more extreme weather events in many of these countries. Many urban in the region are situated along coasts, and Caribbean islands are susceptible to rising sea levels that would damage infrastructure and contaminate freshwater wetlands.

What is CGIAR doing on soil carbon and climate change? By Lini Wollenber, Chrisopher Martius, Keith Shepherd and Rolf Sommer, Consultative Group for International Agricultural Research, 28 June 2017.

<https://ccafs.cgiar.org/blog/what-cgiar-doing-soil-carbon-and-climate-change#.WVPOI7pFyUk>

Full article

Increasing soil carbon would benefit food security and mitigate climate change, but more research is needed about how to sustainably manage the soil for carbon and other benefits.

Soil carbon – the “carbon beneath our feet” – could help mitigate significant greenhouse gas emissions, while also supporting food production and adaptation to climate change. As such, soil carbon could be crucial to meeting the Paris Agreement goal to limit global warming to below 2 degrees and Sustainable Development Goals related to food security and climate. However, we still lack the knowledge needed to sustainably manage soil for carbon. The global [4p1000 Initiative](#) and recent activities of the [Global Soil Partnership](#) are currently rallying effort to overcome this gap.

So what is CGIAR doing on soil carbon and climate change? On June 19, 30 CGIAR scientists, representing seven CGIAR Centers and six CGIAR Research Programs (CRPs), exchanged recent research findings and identified priorities for a future research agenda on soil carbon and climate change. The meeting was hosted by the CGIAR Research Programs (CRPs) on Climate Change, Agriculture and Food Security ([CCAFS](#)), Water, Land and Ecosystems ([WLE](#)) and Forests, Trees and Agroforestry ([FTA](#)).

CGIAR's current soil carbon and climate change work focuses on improving food security and includes:

- Improving understanding of the factors and underlying mechanisms that drive changes in soil carbon and critical soil functions.
- Examining how agronomic practices that improve soil health, agricultural productivity or socio-economic benefits affect soil carbon sequestration, greenhouse gas emissions and climate change adaptation. Practices include soil tillage, crop diversification, crop residue management, integrated soil fertility management, agroforestry, biochar, water management, pasture improvement, and use of grasses with biological nitrification inhibition traits determining soil carbon mitigation potentials in different agricultural systems, including temporal and spatial patterns.
- Investigating the relationships among forests, soils, water and climate.
- Analyzing the effects of land use change on soil carbon stocks, including loss of soil carbon through deforestation and land degradation, and the potential for soil carbon sequestration through restoration of degraded soils.
- Assessing the extent of peatland soils globally and estimating current carbon stocks in peatlands.
- Supporting policy to avoid loss of carbon from peatlands, forestlands and wetlands.
- Developing standardized methods and metrics for assessing soil carbon and its dynamics, especially as an indicator of ecosystem health, at plot and landscape scales.
- Facilitating the Land Degradation Surveillance Framework Network, which now has 200 sites and 30,000 reference points in the global tropics, mostly openly accessible data.

What have we learned about how to increase soil carbon?

In the recent meeting, scientists from four CGIAR centers highlighted research from their programs:

- [Conservation agriculture-based practices and soil carbon: Between myth and farmer reality](#). Clare Stirling (CIMMYT, CCAFS, WHEAT, MAIZE)
- [Enhancing soil organic carbon \(SOC\) sequestration: Myth or reality in Africa?](#) Rolf Sommer (CIAT, WLE)
- [On the critical role of SOC sequestration for soil health in landscapes: Applications for 4P1000, LDN, SDGs and land restoration](#). Tor-Gunnar Vågen (ICRAF, FTA)
- [Soil carbon sequestration in relation to environmental footprints: A snapshot of activities at ILRI's Mazingira Centre](#). Lutz Merbold (ILRI, CCAFS, Livestock)

The presentations and the ensuing discussion indicated that the effects of improved technologies or practices on soil carbon sequestration are often lower than expected.

- Results from a [study by CIMMYT of 125 households in southern Africa](#) showed no evidence for soil carbon gains from conservation agriculture. Similarly, a [synthesis of work in the Indo-Gangetic Plains and Sub-Saharan Africa](#) showed only modest increases.
- [Long-term trials](#) (since 2004) of conservation agriculture and integrated soil fertility management conducted by CIAT in western Kenya showed that conservation agriculture and integrated soil

fertility management increased soil organic carbon compared to conventional practices, but that soil carbon decreased over time under all practices, suggesting that it is necessary to distinguish *avoided loss* from *sequestration gains*.

- Similarly, ILRI found that [soil and water conservation systems in Kenya](#) reduced loss of soil carbon compared to conventional agriculture, but large losses still occurred with the interventions compared to the amount of soil carbon under native vegetation.

Other research presented evidence of practices that increase soil carbon, or at least minimize losses compared to business-as-usual soil management.

- In a meta-analysis of studies in sub-Saharan Africa, IITA found that combining inorganic fertilizers with organic inputs in maize production conserved about 0.5% more soil carbon over a 10-year period than inorganic fertilizers alone. The analysis showed that type of soil, climate and organic resources used significantly influenced the benefits of integrated soil fertility management practices on soil carbon sequestration and crop production.
- In Tanzania, ICRAF mapped areas and quantified the sequestration rates that would be required to meet the [4p1000 goal](#) of increasing soil carbon globally by 4% per year to halt the annual increase of GHG emissions. ICRAF found that achieving this goal would require increased organic inputs to agricultural soils and improved rangeland management on large land areas.
- Reducing burning of crop residues in India is a promising opportunity to increase soil organic carbon, as India produces 30% of global emissions from crop residue burning. CIMMYT found significant soil carbon level increases from eliminating burning and leaving residue as mulch on the soil. Avoiding burning also enables farmers to use the residues for alternative purposes such as fodder or fuel.

Importance of soil carbon

Participants in the meeting discussed the importance of soil organic carbon as an indicator of broader ecosystem health that is responsible for multiple functions, including the capacity of soil to store and provide nutrients, control pests and diseases, hold water, reduce erosion and compaction, produce food, provide habitat, and store carbon. Currently, most assessments do not take a systems perspective to consider all the functions of soil carbon or related greenhouse gas emissions impacts in the lifecycle of a product, at the landscape level or for a whole farm. Managing carbon needs to be considered in these larger frameworks, and its impact should be translated into economic and social terms that make sense to farmers and other decision-makers. For example, communications about soil carbon should explain its potential to reduce risks due to droughts and improve productivity.

Future research priorities

Future research priorities on soil carbon and climate change identified by the group can be grouped into five general themes:

- Quantifying soil carbon sequestration potential,

- Understanding soil carbon processes,
- Evaluating the impact of land use and new technical practices,
- Methods for improved assessment, and
- Policy and action.

The scientists will take steps to support coordination of this research across CRPs in ways that make use of our extensive network of field sites and large knowledge base on sustainable agricultural practices, while also recognizing the broader ecosystem functions of soil carbon and seeking to improve understanding of the benefits and trade-offs of soil carbon sequestration. This will include developing a program of work that reflects different strategies for soil carbon management—such as (1) conserving land (including peat, wetlands, grasslands and forest), (2) rehabilitating or restoring land, or (3) sustainably intensifying agricultural land use—and the best practices with the highest potential impact under each strategy. The group will meet again later in 2017.

FOOD SAFETY

Exporters get lessons on food safety standards. By Javene Skyers, Jamaica Observer, 28 June 2017.
http://www.jamaicaobserver.com/news/exporters-get-lessons-on-food-safety-standards_102924?profile=1373

Full article

LARGE and small exporters from across the island were last week updated about new food safety standards at a two-day workshop organized by Technological Solutions Limited (TSL), which helps companies to reach international standards for the export of their goods.

Using the Hazard Analysis and Critical Control Points (HACCP) system, exporters were taught how to upgrade their food safety plans to meet the new Preventive Controls Rule for Human Food of the United States's Food Safety Modernization Act (FSMA).

The HACCP is a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards — from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product.

According to TSL, a number of companies have built their food and safety systems around the HACCP principles and plans because of the demand from customers, as well as to become compliant with select food safety standards.

As stated by TSL, in some cases, such as with products like ackee, juices, and seafood, HACCP plans remain a regulatory requirement by the Food in the US.

However, under the new preventive controls rule of the FSMA, companies are required to develop and implement food safety plans or upgrade their HACCP plan to become food and safety plans which focus on the prevention of all food safety hazards. In addition, to process controls, these plans also require controls for other hazards which have to be considered, including allergens, radiological, supplier — and sanitation-related hazards. The final compliance date for most exporters is September 2017.

The workshop, which took place at TSL's office on Red Hills Road in Kingston, was targeted at key personnel in charge of developing and maintaining food safety and HACCP systems, such as quality assurance officers and supervisors, plant managers, HACCP coordinators, among others, and was facilitated by managing director of TSL, Dr Andre Gordon and manager of TSL's technical and consulting services (southern Caribbean), Helen Kennedy.

“A lot of people have been implementing HACCP, a lot of you have HACCP programmes and have been working with these programmes, but we have had a flood of requests from across the Caribbean from exporters... so we have had a lot of people saying the suppliers are calling them saying 'we need you to provide us with information that you are compliant',” Dr Andre Gordon said.

He explained that while the news “was all of a sudden” for regional exporters, TSL had been issuing warnings from last year that things were going to change for 2017. He added that there was pressure to comply by May 30, despite the fact that preventive controls for human food rules for most exporters commence in September, and so there is a gap which has now left many people confused.

“Also, a lot of people, having done the preventive controls for human food training, going back now trying to reconcile the existing or the new HACCP plans with the requirements of the Food and Drug Administration, are facing some challenges so that is the reason why we put together this workshop,” Gordon stated.

He added that customers in the southern Caribbean were also having issues, which also helped to cement the need for the staging of such a workshop.

“... We need you to make sure that you leave here with not just the knowledge; this is about the how you do it. this programme is how do we make sure HACCP plans can make the transformation to be part of or to become a full food safety plan and what are the nuts and bolts that need to be fixed,” Gordon said.

Participants received training in areas such as the development and implementation of a USFDA compliant food safety plan, conducting hazard analysis, elements of the foreign supplier verification programme, and major differences between HACCP plans and USFDA-compliant plans, among others.

Industry Ministry encourages producers to become HACCP-certified. Jamaica Ministry of Industry, Commerce, Agriculture and Fisheries; 15 June 2017

<http://www.miic.gov.jm/content/industry-ministry-encourages-producers-become-haccp-certified>

Full article

The Ministry of Industry, Commerce, Agriculture and Fisheries (MICAFA) is encouraging all food-exporting producers, especially those involved in exports, to become HACCP certified. This will enable Jamaica's food-producing businesses to access export markets, as lack of certification could constitute non-tariff barriers to exports.

Speaking on behalf of the Hon Karl Samuda, Minister of Industry, Commerce, Agriculture and Fisheries, at the launch of Quality Systems Solutions & Initiatives Training Institute in Kingston on June 14, quality consultant in the Ministry, Reginald Budhan, said, "In light of the importance of HACCP to our food industry, I would like to use this occasion to call on all food producers, especially those involved in exports, to initiate work to become HACCP certified."

Budhan emphasised that food-exporting businesses have an obligation to the country to become certified as this will provide them with increased access to markets, thereby increasing employment in agriculture.

"My goal is to get ministries and agencies of government modernized by becoming ISO 9001:2015 certified," said Budhan, who noted that that Jamaica could not afford to operate in a parochial manner but must rise to global standards in terms of the goods and services produced for the domestic and export markets.

In addition to appointing Mr Budhan as the standards ambassador to champion the implementation of ISO 9001:2015 throughout the public and private sectors, a quality systems division was recently established in the Ministry of Industry, Commerce, Agriculture and Fisheries to assist the Ministry and its portfolio agencies to become ISO certified. It is expected that the Ministry and five agencies will become certified by the end of the financial year.

Quality Systems Solutions & Initiatives is now its fifth year of operation and has been instrumental in assisting both local and regional companies in achieving certification in international standards to include Safe Quality Foods, HACCP and ISO 9001.

AGRICULTURE DEVELOPMENT

Senator McClean Meets CARDI Officials. Barbados Government Information Service. June 27, 2017
<http://gisbarbados.gov.bb/blog/senator-mcclean-meets-cardi-officials/>

Full article

Minister of Foreign Affairs and Foreign Trade, Senator Maxine McClean, met recently with several officials from the [Caribbean Agricultural Research and Development Institute](#) (CARDI), including its new Country Representative for Barbados, Ansari Hosein.

Mr. Hosein has been employed with CARDI for 13 years and has worked at the Institute's headquarters in both Trinidad and the Cayman Islands.

He told Senator McClean that there were a few areas on which he was looking forward to working with Barbados, among them nutrition for livestock.

The Minister of Foreign Affairs said she was looking forward to working with the new Country Representative and hearing more of his ideas for collaboration on agriculture.

During the meeting, Senator McClean also spoke briefly with CARDI's Executive Director, Barton Clarke. He shared the Institute's plans for its cassava production programme and an ongoing project on renewable energy, as well as discussed the potential of the island's coconut industry abroad.

The Minister also expressed an interest in working with the Institute to provide a youth agriculture programme, which would focus on livestock farming.

Investing in development, focussing on solutions. Technical Centre for Agricultural and Rural Cooperation, 26 June 2017.

<http://www.cta.int/en/news/edd-2017/cta-at-edd/cta-director-michael-hailu-reflects-on-edd.html>

Full article

Agribusiness, youth and women entrepreneurship, regional trade and ICT4Ag were the key themes of five panel debates that CTA organised with its partners during the 2017 European Development Days (EDD). CTA director, Michael Hailu, reflects on the discussions during the forum, both within and outside the CTA sessions.

The EU's leading forum on international development, the 2-day EDD held every year in early June, brings together participants from the public and private sectors, EU institutions, government leaders and civil society representatives, amongst others. For 2017, the overarching theme was

'Investing in development' with three key focus areas: investing in people and planet; investing in prosperity; and investing in peace and partnership. At the EDD17, EU institutions and member states signed the new European Consensus on Development, which will serve as a framework to strengthen development cooperation and policy and aligns EU support with the goals of the 2030 Agenda for Sustainable Development and other UN agreements.

"Much of EDD 2017 was on how to deliver the Sustainable Development Goals (SDGs) and this involved a recognition that agriculture and rural development remain central to achieving many of the SDGs, particularly in Africa, Caribbean and Pacific countries," states Michael Hailu. There are critical issues around climate change, rapid population growth and urbanisation, forced migration, and how to create employment for the large number of young people entering the labour market each year. "Agriculture must be centre stage in making progress towards achieving the SDGs," Hailu continues, "And this is at the core of our strategy at CTA."

Engaging the private sector as a key partner in the promotion of inclusive growth and job creation, particularly for women and young people, was a key aspect of EDD 2017. "So how do we leverage the private sector along with technology to make agriculture more business-oriented, enhance value chains and improve market linkages? These are some of the critical aspects that were shared and discussed," adds Hailu. "It was particularly encouraging to have young people sharing their energy, dynamism and experiences that we can all learn from. Many of these entrepreneurs, with very little help and against all odds, have created successful sustainable businesses. The challenge is how do we learn from that innovation process and scale up?"

"Too often in meetings like these we talk about the challenges and yet these young entrepreneurs focus on solutions. They face many obstacles but with hard work and persistence they can achieve something extraordinary," emphasises Hailu. He added that one particularly inspiring example is Lovin Kobusingye, managing director of Kati Farms in Uganda who was involved in the CTA session on 'Investing in women entrepreneurs: enabling women's economic participation for sustainable growth and rural development'. Launched in 2011, Kati Farms links several hundred smallholder fish farmers, most of whom are women, to supermarkets, hotels, restaurants and street vendors in Uganda, and also exports to Burundi, Kenya and Sudan. Kobusingye credits her achievements to developing innovative products, such as her unique fish sausages. But her success did not come overnight and she stressed in the EDD panel session that it is critical for other young and women entrepreneurs to turn their dreams into reality without waiting for government or donor support. Once a start-up has proved their business model, opportunities for accessing credit and technical support become much easier.

"We need to learn from these examples of success and apply the same persistence, determination and enthusiasm to working together to help young people create successful agribusinesses. ICTs are playing a transformational role in helping to create jobs, stimulate innovation and involve more young people and women along the agricultural value chain. And at CTA, we will continue to focus on these critical areas to contribute to achieving the SDGs," concludes Hailu.

Successful partnership must start at the farm gate. By Martin Hirschfeld, CABI Plantwise, 27 June 2017.

<https://blog.plantwise.org/2017/06/27/successful-partnerships-must-start-at-the-farm-gate/>

Full article

The annual European Development Days, held in Brussels 7-8 June this year, showcase Europe's commitment to building a sustainable and fairer world. The forum builds on the core belief that cooperation is key to achieve real change towards a poverty-free and sustainable world where everyone has the prospect for a decent life. At this year's conference, CABI hosted a panel discussion which drew together a group of food security and agricultural experts to share their experiences of how partnerships supports smallholder farmers.

The panel included Dr Roberto Ridolfi from the [European Commission's DG DEVCO](#), representing the donor perspective; Maaïke Groot from [East-West Seed](#), representing the private sector; Henry Msatilomo from [Malawi's Ministry of Agriculture, Irrigation and Water Development](#), representing the public sector; and [Plantwise's](#) Dr Washington Otieno, representing the non-profit and NGO sector. The discussion was moderated by CABI's Nick Perkins, former director of [SciDev.Net](#).

Smallholder farmers – typically taken to mean those with less than one hectare – produce 70% of the world's food production. But with future population growth output, this may have to double by 2030 and then double again by 2050. Yet with the majority of the world's poor living in rural areas, many smallholder farmers struggle to keep up with the latest improvements or innovations in farming – which is where public-private partnerships (PPPs) come in.

These partnerships need to start at the farm gate, not in Brussels or the remote headquarters of multinational pharmaceuticals, if real progress in living standards and benefits from the value chain are to be achieved. Genuine partnerships are the key to achieving the [UN's Sustainable Development Goals](#), but farming receives less media attention than poverty or migration – despite having a strong impact on both.

Safeguards are required when working with the private sector but, when successful, they can help fruit and vegetable growers. Companies like [East-West Seed](#) provide tropical vegetable seeds, which cost about 5 % of farm costs, but can more than double or treble income.

Alternatively, with the growth of smartphones and tablets, farmers can send pictures of diseased crops to remote “plant doctors”, with a 92 % success rate in diagnosis. Early warning of a particular banana pest, for example, can be transmitted to 50 million smallholder farmers at the touch of a button.

But just as donors are not just cash machines, farmers are not just guinea pigs for trial experiments. It is a dignified role – the foundation of all human life – but remote rural farmers often need

education to help articulate their needs and eradicate pockets of ignorance. For example, in some developing countries, a farmer is not considered ‘a man’ unless he grows maize – even though it requires heavy rainfall and maize is often not as profitable as other crops, such as cashew nuts.

For any PPP to be successful, its entry point must be the local village and its success must start at the farm gate. That means increasing productivity and access to markets, which in turn build up income and resilience – a virtuous circle where a farmer can then afford more seeds or technology.

There is no one-size-fits-all solution for PPPs – different regional fruits, vegetables, tastes and specialities – but farmer cooperatives can help smallholders when dealing with the private sector and they can also help to scale up enterprises in what will always be a largely private sector activity, whether large or small.

Field School Helping to Boost Farm Yields. By Peta Gay Rowe, Jamaica Information Service, 28 June 2017.

<http://jis.gov.jm/field-school-helping-boost-farm-yields/>

Full article

The European Union (EU)-funded Farmer Field School (FFS) programme is helping to boost the yield of the country’s farmers, by scaling up best practices in agricultural production.

Dubbed the “school without walls,” the initiative, being implemented by the Rural Agricultural Development Authority (RADA), engages farmers in areas such as crop management and integrated pest control, among others.

It is part of the European Union Caribbean Agriculture and Fisheries Programme (EU CAFP).

Speaking in an interview with JIS News, Acting Principal Director for Technical Services at RADA, Marina Young, says the FFS, introduced over six years ago, assists farmers to learn within their own environment.

“The FFS is very important... in transmitting the knowledge and skills and most importantly cause a change in attitudes in adopting new methods and technologies in farming,” she notes.

“All of the learning takes place in the field, which is the key to the success of the programme,” she says, noting that the farmers gain hands-on experience.

She says the farmers are able to share their knowledge of farming and make the link between what they know and what the facilitators are imparting.

“During the FFS, there are no teachers and there are no students, we are all at the same level... all ideas are accepted during the FFS. However, the school is facilitated by trained practitioners... to ensure that a particular target and outcome is achieved,” Mrs. Young points out.

She notes that the “learning by doing method” employed in the training serves to validate the information that the facilitators are teaching.

“Farmers are witnessing how a particular method works and using the information as they get it. Therefore, their adoption methods are much higher in comparison to traditional training methods,” she points out.

Mrs. Young tells JIS News that the impact of the initiative to the country and the economy is one of the most rewarding outcomes of the FFS.

She says as a result of the programme productivity is more than two times higher than average.

There have been significant improvements in the growth of healthy crops, farmers have a greater appreciation for the weekly management of fields, there is a more managed approach when using pesticides and a better understanding of the ecosystem and how it impacts the field.

Mrs. Young informs that there is a higher mitigation rate against diseases, but admits that more needs to be done in this area.

In addition, models have been developed for agro forestry; climate change; hot pepper, onion and scallion production; beet army worm management; and cultivation of sweet potato, Irish potato and many more.

“We also recently completed two major graduations and we conducted FFS in land husbandry, climate smart agriculture in the watershed areas of Hope River and Yallahs and hundreds of farmers left with better skills of land management,” Mrs. Young informs.

She says that the programme is improving the agricultural knowledge and skills of the farmers, who will pass on these techniques to others, benefitting the sector for generations to come.

“The farmers are from the community, and the FFS gives them a chance to have a sustainable crop rotation, timely harvests and steady income. These farmers are chosen with the aim that they will return to their community and in turn, they are supposed to transfer the knowledge through their farmers’ networks that are administratively organised,” she shares.

New Forest, Manchester farmer, Clinton Ocsar, who is a recent graduate of the programme, shares that through the FFS, he has gained valuable skills to improve the productivity of his onion and scallion farm.

“We looked forward to Wednesdays, which was the day we meet up at the agro park. I enjoy the learning and the socialising with the other farmers,” Mr. Oscar shares.

He says a typical day at the FFS starts at 8:00 a.m. and ends at noon. The day includes the checking of the attendance registry, field observation which includes agro- ecosystem analysis, activities for team building, special topics to address issues affecting farmers, and evaluation of the day’s session and recommendations.

“Everything starts from the beginning; learning was not difficult because we were doing what we always do, we just add newer things to the methods. For example, to grow a pepper tree, the soil would have to be soft. We would mulch, then fertilise it and ensure that it is planted at a certain stage. So the FFS teaches the techniques,” he points out.

Mr. Oscar says through the FFS, he has gained “another level of understanding of agriculture,” which has enabled him to increase yields. He notes that productivity of his farm was hindered due to lack of good farming techniques and failure to take into account changes in weather patterns caused by climate change.

He says the FFS equipped the participants with a climate-smart approach, which is essential as farmers increasingly face climate-driven hazards that oftentimes threaten the crops, food security and incomes of many rural households.

“Knowledge is power and the FFS is where I got the opportunity to improve my knowledge of agriculture. I know what to look for when I am going out in the field as well as other technicalities when you are scouting and these things help to prevent (disease) outbreaks,” he shares.

Mr. Oscar tells JIS News that he also learnt the correct way to use chemicals. “They also taught us not to use sprays during harvest ...because they can be hurtful to those who consumes (the crop). There are signs on the spray bottle that I did not know, to tell you how dangerous this amount is...” he notes.

There are signs on the spray bottle that I did not know, to tell you how dangerous this amount is...” he notes.

“It really hurt me to see a man spraying the field unprotected; some in shorts, the breeze blowing and he is using a mist blower with nothing over his face. That to me is like death,” he laments.

Mr. Oscar says he also learnt how to properly dispose of chemicals so as not to harm the environment. He says he will be practising what he has learnt and sharing the information with others. For further information on the FFS, persons are encouraged to contact the RADA main office at 977-1158-64.

BUDGET – Tobago House of Assembly

Cocoa Gets Attention in Tobago Budget. Tobago House of Assembly (THA), 24 June 2017.
<http://www.tha.gov.tt/news/cocoa-gets-attention-tobago-budget/>

Full article

As the THA moves to boost the agriculture sector a concerted effort will be made to link it with the school feeding programme. Seed funding will also be provided to encourage more people to undertake agriculture venture.

Secretary of Finance and the Economy Joel Jack said human capital development was “central to the developmental strategy of this Administration.” This while he presented Tobago’s budget request for Fiscal 2017-2018 yesterday (June 23, 2017).

Jack’s fiscal 2017-2018 expenditure estimates include a development request of \$1.71 billion and recurrent estimates of \$ 3.2 billion, totaling \$4.91 billion. Under recurrent expenditure, the school feeding programme will cost \$50 million and the Agricultural Incentive Programme \$4 million. The development programme estimates include an Agro-Park at Friendship Estate at a cost of \$10 million and the Agricultural Access Roads Programme at \$80 million.

During the presentation, the Secretary indicated the Assembly will initiate financing mechanisms to benefit the economy. This will include a cocoa rehabilitation programme through the Division of Food Production, Forestry and Fisheries.

“We are cognizant of the fact that fine flavored cocoa is in high demand and fetches premium prices on the international market. We are also mindful of the historical importance of cocoa to the Tobago economy. The Division proposes to utilize agricultural lands to develop an effective value chain in cocoa and chocolate production,” he said.

Priority will also be placed on facilitating youth involvement in agriculture, through training and a revision of the Youth Apprenticeship Programme in Agriculture (YAPA), Jack said.

In addition, “during the next fiscal year, the Division of Education in collaboration with Inter-American Development Bank (IADB) will begin construction on five (5) Early Childhood Centres in Roxborough, Courland, Adventure, Bon Accord and Belle Garden,” he said.

Themed, “Unleashing the creative and productive capacity of our people,” the THA budget presentation was held at the Assembly Legislature building, Scarborough.

“Personnel Expenditure- \$858.3 million, Goods and Services- \$1.2 billion, Minor Equipment Purchases- \$127.2 million and Transfers and Subsidies- \$1.05 billion,” Jack said. He noted that the requested amount was a reduction of just under \$22 million from last year’s request.

Jack allocated estimates to each of the THA Divisions. The three receiving the highest estimates were the Division of Health, Wellness and Family development (\$794.1 million), the Division of Infrastructure, Quarries and the Environment (\$539.5 million), and the Division of Education, Innovation and Energy (\$498.1 million).

The budget focused on building economic resilience; fostering innovation and creativity; supporting tourism; revitalizing agriculture; developing human capital; providing housing opportunities; enhancing health care delivery; fostering and stimulating rural development; holistic development of young adults; preserving Tobago's pristine natural environment and empowering and building communities.

In addition to agricultural initiatives, the Assembly will review potential Public Private Partnership proposals in order to develop innovative solutions to housing needs in Tobago.

“As we seek to address our current and emerging challenges, our success will depend on reasoned collaboration, mutual trust, and reliance on our sense of patriotism,” Jack said.

The budget debate is set to begin next Tuesday (June 27, 2017).

Tobago House of Assembly (THA) Budget Statement for Fiscal 2018 Presented By: Assemblyman Joel Jack, Deputy Chief Secretary & Secretary of Finance and the Economy, Thursday 22nd June 2017

<http://www.tha.gov.tt/downloads/download-info/budget-statement-fiscal-2018/>

pp. 22-24 Revitalizing Our Agricultural Sector

5.17 Madam Presiding Officer, I now turn to the Agriculture sector.

d. Revitalizing Our Agricultural Sector

Madam Presiding Officer,

5.18 This Administration is mindful of the role the agricultural sector can play in generating economic activity, job creation, reducing food price inflation, as well as reducing our dependence on external sources for basic food items and in improving food security.

5.19 Earlier this year, the Executive Council approved the establishment of an Agricultural Revitalization Team that will work with the Secretary of Food Production, Forestry and Fisheries to formulate an Agricultural Revitalization Plan to position the agriculture sector as a major driver of sustained economic activity. This Plan will guide public and private sector efforts in addressing the major developmental challenges facing the sector. Over the next fiscal year, the Division of Food Production, Forestry and Fisheries proposes several initiatives to reposition agriculture as a key driver of economic growth on the island. One of the major initiatives proposed by the Division is the development of an Agro-Park on the Friendship Estate at an estimated cost of \$10M. It is

proposed that this Park will serve as a model farm allowing for intensive commercial production of select vegetables and root crops as well as the introduction of modern agricultural practices and appropriate innovative technologies. It is envisioned that the new Agro Park will:

- Employ modern technology to enable the benefits associated with economies of scale to be fully exploited;
- Serve as a centre for research, training and capacity building for farmers and assist farmers in modernizing their farming practices; and,
- Facilitate greater private sector involvement in the agricultural sector.

5.20 Another major initiative of the Division of Food Production, Forestry and Fisheries (FPFF) in the upcoming fiscal year is a programme of cocoa rehabilitation. We are cognizant of the fact that fine flavoured cocoa is in high demand and fetches premium prices on the international market. We are also mindful of the historical importance of cocoa to the Tobago economy. The Division proposes to utilize agricultural lands to develop an effective value chain in cocoa and chocolate production. In this regard, the Division will collaborate with the UWI Cocoa Research Centre to leverage their technical expertise in areas of research and product development.

5.21 Madam Presiding Officer, to increase food production on the island, we will expand and intensify the Agricultural Access Roads Programme. This will open up more lands for agriculture and other developments. Concerted efforts will be made to link agriculture with the school feeding programme and seed funding will be provided to encourage more persons to be involved in agriculture. In addition to these initiatives Madam Presiding Officer, capacity enhancement training and business readiness programmes will be introduced in this fiscal year to prepare farmers and agro-processors for the opportunities that will emerge from investments in the tourism sector with the construction of the Sandals Resort and other international brands.

5.22 Madam Presiding Officer, other initiatives of the Division of Food Production, Forestry and Fisheries to boost agricultural production on the island over the next fiscal year include:

- Encouraging and facilitating greater synergies between the agricultural sector and other sectors of the economy such as tourism and the health sector;
- Enhancing the capacity of the Propagation and Demonstration Stations and the Tissue Culture Facility to increase the availability of planting material to the public. Targeted crops include citrus and other tree crops, plantains, bananas and dasheen;
- Expanding the Hope Farm Genetic Centre which will focus on artificial insemination and on conserving and improving the genetic resources of our livestock;
- Facilitating youth involvement in agriculture through improved access to capacity enhancement training and a revision of the Youth Apprenticeship Programme in Agriculture (YAPA); and,
- Ensuring small family farmers are exposed to modern agricultural practices and technologies such as hydroponics and aquaponics.

YOUTH

Agriculture Ministry's Country Victoria host Primary School's 4H Poster Competition 2017.

Government Information Service Limited, Trinidad and Tobago, 27 June 2017.

<http://www.news.gov.tt/content/agriculture-ministry-county-victoria-hosts-primary-schools-4h-poster-competition-2017#.WVPkibpFyUk>

Full article

County Victoria Agricultural Office of the Ministry of Agriculture, Land and Fisheries, in collaboration with the County Victoria's 4H Voluntary Leaders Council, hosted its 2017 4H Poster Competition on June 13th 2017 under the theme "Recycling for a Better Tomorrow", with the watch words "Reuse, Recycle and Reduce".

The judging team of Reynold Ramdial, Agricultural Officer I; Joanne Ramsamooj, Agricultural Assistant I; and Saleem Shah, Agricultural Assistant I indicated that the judging was very difficult as the participating twenty-six (26) 4H'ers produced posters of high quality, each poster perfectly depicting the theme. Mrs. Anuradha Pooran Ramroop, 4H Coordinator, County Victoria commended both the 4H'ers and Voluntary Leaders for their hard work and continued dedication to the programme. Ms. Sati Gangapersad, County Agricultural Officer, engaged the young 4H'ers in a discussion of recycling, underlining the criticality of young people, as the leaders of future generations, championing environmental sustainability, to ensure a better tomorrow.

The participating students came from the surrounding Primary Schools of Marac Baptiste; Barrackpore ASJA; St Clements Vedic; Tortuga Government; Nipal Presbyterian; St Mary's Government; Princes Town ASJA; Santa Maria RC; Iere Government; Mt. Pleasant Government; Sixth Company Anglican; and Nipal Presbyterian.

How do we make farming cool when temperatures are hot? By Daphne Stella Nanasambu, Consultative Group for International Agricultural Research, 27 June 2017.

<https://wle.cgiar.org/thrive/2017/06/27/how-do-we-make-farming-cool-when-temperatures-are-hot>

Full article

Migration is part of human history; the current human geography of Africa can be traced back to movements made centuries ago. In Uganda, different ethnic groups, including the Bantu, Hamites, Nilotics and Nilo-hamites, all entered the country from different places in response to a variety of circumstances, including drought, infertile soils, and depleted livestock pastures.

Today, climate change is also becoming an important contributing factor in the movement of people. Adverse weather conditions are affecting the lives and livelihoods of people across different agro-ecologies, causing higher risks. This is particularly true in developing countries, such as in

Uganda, where environmental risks are becoming a [major driver of migration](#). For instance, in North-Eastern Uganda, the Karamajong, who are a nomadic people, have been forced to move even more frequently because of climate change, given the highly variable semi-arid environment.

The challenge for the farmers and pastoralists affected now, as well as for those anticipating climate change impacts, is how to adapt successfully in order to become more resilient and attain income- and food-secure livelihood activities.

Migration as adaptation measure

At its root, adaptation means, “to become adjusted to new conditions.” This may mean seeking out more conducive conditions rather than changing one’s physical capacities in order to suit the surrounding environment. Moving yourself rather than changing what you are or what you do can be an effective way to adapt.

For governments, migration may be looked upon as an adaptation strategy in response to increasing pressures caused by growing population and unemployment (particularly among youth), skill shortages, and infrastructural and financial gaps, in addition to other risks, such as climate change.

For people, the greatest driver may be belief in the possibility of a better life – the ‘grass is greener’ syndrome. This is perhaps especially the case for those whose livelihood depends on a sector where the outlook is particularly bleak, such as for farmers and pastoralists anticipating the impacts of climate change.

Climate change and migration ages agriculture in Uganda

Uganda is a good case in point. The country had the [2nd highest fertility rate in the world](#) in 2002. With [78% of the population younger than 30](#) years of age, Uganda is the [second youngest population in the world](#) after Niger. However, with the [unemployment rate for young people between 15 - 24 years at 83%](#), Uganda has the highest dependency ratio at 103%.

At the same time, contrary to popular belief, [the majority of youth is interested in agriculture and ag-enterprise development](#) but lack the resources to break into the sector.

Climate change heightens the need for the right support and input provision, not least because it adds a major disincentive to engage in the sector if it is seen as risky. Specific challenges include perceived increases in the cost of investment in agriculture, from the need to purchase drought resistant seeds, to the introduction of irrigation facilities to iron out rainfall anomalies, and measures to reduce losses due to pest infestation.

All these factors can be seen to have contributed to making agriculture less attractive or affordable to youth. The net effect is that, although the population is very young, the average age of a Ugandan farmer is 54 years. The lure of work in urban areas remains strong for youth.

Among the “millennials,” exposure through technology to what exists beyond Ugandan borders may also lead them to migrate out of their own country. Many migrate over great distances and via risky, sometimes informal routes. The chief lure is wage labor and being able to partake in an international cash economy.

Making agriculture more appealing to youth

The question is whether there is a way to respond to young people’s apparent interest in agriculture and curb migration trends in a way that is economically viable. The key emerging issues include understanding why some stay, and what makes others leave. If youth do leave, what is the difference in experiences, both at origin (e.g. with the migrant’s family) and at the destination?

It is also important to look at the incentives of governments in addition to those of individuals. Doing so will lead to a completely different approach to sector development strategies in agriculture and climate change adaptation.

In the face of such complex, interwoven challenges, the [CBA11 Youth Forum](#) will be held in Kampala, Uganda on June 28th and 29th 2017. The CGIAR Research Program on Water, Land and Ecosystems (WLE), led by the International Water Management Institute (IWMI), is hoping to contribute to the identification of potential ways forward for youth in agriculture, as well as for African governments, and propose support measures.

WLE will lead a session titled “A youth agenda for sustainable agricultural transformation in an era of climate change and out-migration,” where we hope to get all relevant stakeholders talking about how to give Ugandan youth access to the agricultural sector. [Stay tuned!](#)

UPCOMING EVENTS

July

Caribbean Food Crops Society (CFCS) Annual Meeting

Date: July 16-22, 2017

Location: Puerto Rico

Description: The theme for the meeting is: The Role of the Caribbean as a Research Hub to Advance Global Agriculture and Food Security.

Website: <http://cfcs.eea.uprm.edu/article/annual-meeting-cfcs-puerto-rico-july-16-22-2017-call-submission-presentations-deadline-extern>

August

Denbigh Show, Jamaica

Date: August 5-7

Location: Denbigh Showground, May Pen, Clarendon,

Theme: ‘Grow What You Eat... Eat What You Grow: A Salute to Our Farmers, Nation Builders’.

Website: <http://www.jas.gov.jm/Denbigh.html>

32nd West Indies Agricultural Economics Conference 2017

Date: 6-11 August 2017

Location: Georgetown, Guyana

Description: Theme: Food & Nutrition Security: the pathway to sustainable agricultural development in the Caribbean. Organised by Caribbean Agro-Economic Society

Website: <http://www.caestt.com/home/32nd%20W.I.A.EConference.php>

November

TropAg2017

Date: 20-22 November, 2017

Location: Brisbane, Australia

Description: Theme is “high impact science to nourish the world”, reflecting the critical role of science, technology and innovation to the many challenges facing tropical and sub-tropical agriculture and food production globally.

Website: <http://tropagconference.org/>

2018

October 2018

18th International Triennial Symposium of the ISTRC (International Society for Tropical Root Crops) will be in Cali, Colombia from 22nd to 26th October 2018.

<http://www.istrc.org/194-18th-international-triennial-symposium-of-the-international-society-for-tropical-root-crops-istrc-cali-colombia-from-22nd-to-26th-october-2018>