Ministers’ Brief

Special Issue

Rebuilding a stronger more resilient regional agriculture sector

The 2017, Atlantic hurricane season was extremely active producing 17 named storms of which 10 became hurricanes with 6 of them categorised as major. Two of these, hurricanes Irma and Maria left a path of unimaginable destruction across the Caribbean. Thousands of residents were displaced, homes and buildings destroyed, lives and livelihoods lost and communications infrastructure obliterated.

On September 6, Irma a powerful category 5 hurricane impacted several islands in the northern Caribbean with Barbuda and St Kitts and Nevis being among the hardest hit. A joint United Nations (UN), European Union (EU), World Bank, Caribbean Development Bank (CDB) and Eastern Caribbean Central Bank mission visited Antigua and Barbuda from September 26-October 7. The mission aimed to support the Government in undertaking a recovery needs assessment. It concluded that the total damage of the hurricane events for Antigua and Barbuda totaled approximately EC$367.5 million with losses amounting to approximately EC$51.2 million. Recovery needs were estimated at EC$600.1 million. The individual sector that sustained the greatest damage was tourism, accounting for 44% of total damage costs. Agriculture, which was largely limited to the production of fruits and vegetables and the rearing of livestock and poultry for subsistence consumption recorded estimated damages of EC$400,000, losses at EC$1,000,000 and recovery needs at EC$700,000. According to the assessment, 100% of the fisheries sector was affected in Antigua and Barbuda. The total damage for the sector amounted to EC$815,000 while total recovery needs was estimated between EC$500,000 and EC$1,000,000.

Approximately 2 weeks later, on 18 September hurricane Maria made landfall as a category 5 hurricane in Dominica. Preliminary assessments on the ground following this storm indicated that the agriculture sector was totally destroyed. According to the Post Disaster Needs Assessment (PDNA) conducted by the international community, the agriculture and fisheries sectors were assessed to suffer damages in the vicinity of EC$156 million, and losses to the tune of EC$339 million. The damage to the forestry sector was estimated to be EC$87 million and needs of EC$40 million for recovery.

St Kitts and Nevis was impacted by both weather systems. The damage to
the agriculture sector was significant, resulting in the death of livestock, damage to greenhouses and feeder roads, loss of standing crops and equipment. Prime Minister Timothy Harris stated that damage to St Kitts and Nevis was conservatively estimated at ECS53.2 million”.

Over the last 6 months CARDI has been working with the various Ministries of Agriculture and other regional and international agencies to provide the requisite technical guidance, financial support and leadership necessary to kick-start agriculture production in the short term and re-engineer it into a resilient sector in the long term.

**Helping Dominica recover from hurricane Maria**

Following the passage of Hurricane Maria, reports from on the ground indicated that agriculture was totally destroyed. The Caribbean Disaster Emergency Management Agency (CDEMA) led CARICOM’s response and reported severe damage to farm housing, irrigation, infrastructure, feeder roads, forest reserves, coastal fisheries and widespread loss of poultry. For Dominica, this was significant since at least 25% of the population directly depend on agriculture for their livelihoods.

CARDI has partnered with the Ministry of Agriculture and Fisheries (MOAF) and the Inter-American Institute for Cooperation on Agriculture (IICA) to assist in rebuilding Dominica’s ravaged agriculture sector. Emphasis has been placed on providing short term relief to kick-start agricultural production. By restoring agricultural productivity on the island, livelihoods will be sustained and the dependency on food aid in the less affected communities will be reduced.

In the immediate aftermath of Hurricane Maria, CARDI and IICA representatives conducted a needs assessment of farmers’ groups and associations across the island. The assessment yielded useful baseline data which helped inform the needs and type of support these groups required under the IICA/CARDI Technical Cooperation framework.

More than 300 persons from the Belles Farmers Cooperative, Cockrane United Farmers Group, Bee Keepers Association, SOUL Multi-Purpose Cooperative, North East Women in Action, the Warner Farmers Group and the 4H Club received agrochemicals, apiary materials, farm tools and equipment, irrigation items and material for livestock housing and fencing material. The value of these farming inputs totalled US$21,500.

Funding to the tune of US$21,104 was also provided to the MOAF to purchase seeds, nursery material irrigation and nursery supplies from the Organisation of Eastern Caribbean States (OECS).

Tree crops were not spared from the wrath of Hurricane Maria. More than 90% of coconut trees in Dominica were reportedly destroyed. Following a request from the MOAF, CARDI under the EU-funded project, Coconut Industry Development for the Caribbean, will supply 10,000 seednuts and 10,000 tissue culture plantlets to assist in re-establishing 250 acres of waternuts and 250 acres of coconuts for processing. These planting materials are expected to be on island by the end of May 2018.

**Relief efforts target farmers in St Kitts and Nevis**

The agriculture sector sustained significant damage from both hurricanes Maria and Irma. The Departments of Agriculture in St. Kitts and Nevis conducted rapid assessments of the damage and the information gleaned was used to focus relief efforts under the IICA/CARDI Technical Cooperation framework.

To kickstart agriculture production seeds and seedlings were provided to farmers. Over a three month period starting in December 2017 farmers received seedlings for a range of vegetables. This phased approach prevented over supply and resulting gluts on the market.

Over 150 farmers in St Kitts from all three districts received seedlings. The targeting of women for assistance is aligned to Government’s objective of creating employment and income-earning opportunities for women and youth.

In Nevis over 24,000 seedlings of vegetables were distributed to over 50 farmers, 40% of the beneficiaries were females.
Hurricane Relief effort, 16 shade houses were identified for repairs. Trained technicians and materials such as plastic film, wire, profile and fencing materials were provided to repair the damaged structures. To complement this activity a 2-day training session was facilitated by Dr Chaney St Martin, IICA Trinidad and Tobago and Dennis McClung from Garden Pool Ltd, (USA) for shade house operators, extension officers and other technical staff of the Ministry. Part of this training was to demonstrate the rapid dismantling of shade houses in the event of impending hurricanes.

A knock down aquaponics demonstration model has been constructed at the Department of Agriculture, Nevis. This is a climate resilient self-sustaining model which can be dismantled and securely stored in the event of an approaching bad weather system. The system was built using locally sourced materials and will be used to demonstrate to farmers and other interested persons a climate resilient production option.

**Re-engineering a resilient agriculture sector in Antigua and Barbuda**

Hurricane Irma hit Barbuda as a category 5 hurricane causing catastrophic damage across the small island. In its aftermath CARDI joined forces with the Ministry of Agriculture, Lands, Fisheries and Barbuda Affairs (MALFBA) and the IICA to conduct a preliminary assessment on the damage to the agriculture sector on 27 September 2017. Following this a short list was compiled prioritising the areas that needed to be immediately addressed for rehabilitating/rebuilding the sector. CARDI through the IICA/CARDI Technical Cooperation Agreement supported rehabilitative works and recovery efforts on the island.

Fencing material was supplied to small ruminant farmers whose animals were being threatened by feral dogs. Feeds were also distributed to pig and poultry farmers whose stock were destroyed by the bad weather. Planting material for the establishment of forage banks was provided as a means of improving the resilience of livestock farmers in Barbuda. Seeds and cuttings were supplied for forages such as mulberry (Morus spp.), guinea grass (*Megathyrsus maximus*), *Chrysopogon aciculatus* and elephant grass/napier grass (*Pennisetum purpureum*). These forages are suitable as they can be rapidly multiplied.

The bee industry was identified as a priority area for rebuilding, following the passage of hurricane Irma. CARDI and IICA have provided equipment to beekeepers and introduced bees to populate hives. Honey from Barbuda is noted for its distinctive taste and texture.

Protected structures were devastated across the island. In December 2017, a protected but portable aquaponics system which can easily be deconstructed and stored in the event of another hurricane was installed at the Sir Mc Chesney George Secondary School. The US based company Garden Pool assisted in the development of this system. Farmers and students benefited from training on the use and installation of drip irrigation.

CARDI’s effort to rebuild the sector has been and will continue to be complementary to the vision articulated by the Honourable, Arthur Nibbs, Minister of Agriculture, Lands, Fisheries and Barbuda Affairs at the 71st Special Ministerial Meeting of the Council for Trade and Economic Development (COTED) on Agriculture, held on 6th October, 2017 at the CARICOM Secretariat.

Minister Nibbs in his statement said a “Green island concept” will be adopted to rebuild the sector focusing on improving resilience and confronting the challenges of food insecurity.