

VI. International cooperation

Climate change is an urgent challenge faced by the international community. As a member of the global village, Taiwan is actively implementing the United Nations Framework Convention on Climate Change (UNFCCC) while continuing to participate in relevant meetings and work as a Non-Government Organization (NGO) observer. Taiwan also cooperates closely with diplomatic allies to share valuable experience in promoting climate change adaptation and environmental protection with the international community, as exemplified in the three cases below.

1. Belize Urban Resilience and Disaster Prevention Project

- Background -



- Belize suffers from the threat of extreme rainfall due to climate change. The low-lying coastal plains, as well as densely populated zones, are the worst-hit areas, resulting in the loss of lives and property. To minimize the impact of extreme weather, the Government of Belize and the town council of San Ignacio/Santa Elena have sought assistance regarding the use of a Geographic Information System (GIS) to enhance Belize's capacity in applying technology to reduce disasters. This project is designed to cope with the types of natural disasters that occur in Belize, as well as the existing software and hardware conditions of the country's disaster prevention units, to assist in marking out potential flood areas and strengthening monitoring, as well as establishing an early warning mechanism for floods. Capacity building and training courses will also be included to enhance the technical capabilities of Belize's disaster prevention and protection units.

- Case & Results -

- This project assists the Belizean government in using GIS technology to establish an early warning system, improve flood preparedness and disaster response efficiency, and carry out infrastructure improvement at the demonstration site. The warning system is expected to be integrated into the country's disaster prevention and rescue system to substantially reduce the loss of life and property caused by floods in Belize. The main goals of this project include:
 1. Strengthening overall flood preparedness and prevention, as well as updating basic maps.
 2. Applying advanced monitoring techniques.
 3. Carrying out flood control in flood-prone areas.
 4. Raising awareness and knowledge of disaster prevention.
- As of the end of March 2022, the following activities have been completed :
 1. Update of the measurement data of river cross section of National Hydrological Service.
 2. Update of cadastral maps, land use maps, road maps, river maps, watershed maps, bridge maps, public facilities maps and inundation potential maps.
 3. Update of the digital terrain model (DTM) with a resolution of 12.5X12.5 meters.
 4. Completion of the potential inundation simulations of San Ignacio and Santa Elena.
 5. Completion of the 12-hour rainfall from 50mm to 300mm flooding potential map, based on rainfall data and hydrological data.
 6. Completion of a set of flood risk maps.
 7. Completion of four sets of water regimen monitoring stations equipment.
 8. Completion of an early warning platform system for flood disaster.

9. Start of the construction project for San Ignacio and Bullet tree village flooding improvement.
10. Completion of the preliminary investigation of standards for flood response operations, and related suggestions for improvement.
11. Completion of one disaster prevention inter-ministerial response team training in Taiwan.
12. Completion of two online disaster prevention training sessions and one on-site training in Belize.
13. Investigation carried out in Belize for community disaster prevention planning.
14. Completion of flood improvement in the San Ignacio urban area, construction of a 532-meter-long drainage ditch and a 20-foot-long drainage culvert.



Image source: ICDF

- Sustainable Goals-



2. St. Kitts and Nevis Enhancing Agricultural Adaptive Capacity to Climate Variability Project

- Background -



- A severe drought occurred in Saint Christopher and Nevis in 2015, causing the total crop output to fall by 31.2 percent from the 2014 figure, affecting national food security and farmers' livelihoods. In response, the country filed a request for assistance from Taiwan. Literature review and fieldwork confirmed that the impact of climate variability and climate change trends are essential issues for St. Kitts' agricultural development. Initial estimates of St. Kitts' agricultural vulnerability revealed that the core problem was the lack of capacity of the country's agricultural sector to respond and adapt to early warning information on climate variability, and that three measures should be adopted to increase the resilience of its agricultural system: establish a data collection mechanism for early warnings; develop and/or introduce crop disaster mitigation and prevention techniques; and increase the availability of agricultural information. When the project is completed, St. Kitts' agricultural agencies will establish an information dissemination mechanism for crop disaster mitigation and prevention so that farmers can use the available information to minimize damage caused by disasters.

- Case & Results -

- As of the end of June 2022, the following activities have been completed:
 1. Establishment of four agricultural weather stations in the most needed areas with expertise from the Council of Agriculture (COA), Executive Yuan, and the Central Weather Bureau (CWB). These stations have started real-time data collection (<http://www.agromet.kn/>).
 2. Visit of three officials of cooperating units in St. Kitts and Nevis to the Central Weather Bureau to undertake technical training in basic weather forecasting and reporting.
 3. Technical consultation and capacity building by two Taiwanese experts dispatched to St. Kitts and Nevis.
 4. Establishment of one demonstration farm and four demonstration fields, with 11 crop cultivation trials

undertaken and disease and pest monitoring in response to extreme weather conditions. In addition, one annual report on crop disaster mitigation and prevention techniques was published.

5. Delivery of on-site capacity building for officials of cooperating units and completion of four SOP manuals (weather station maintenance, on-site data collection, digital image processing, and soil fertility evaluation).
6. Development of social media group that made 96 announcements on crop disaster mitigation and prevention.
7. Organization of 22 events to teach farmers how to make use of agricultural information.
8. Organization of seven events to teach farmers how to use climate-resistance cultivation skills.
9. Establishment of one agricultural information platform (<https://goo.gl/gpmExX>) and compilation of an annual report on agricultural information dissemination.
10. Production of one "Suitable Crop Cultivation Map" and one "Annual Climate Risk Calendar in St. Kitts and Nevis."



Image source: ICDF

- Sustainable Goals-



3. Improving Community Resilience in the Dry Corridor of Honduras Project

- Background -



- Disaster resilience has become one of the major topics in the international humanitarian aid community. Honduras is considered one of the world's most vulnerable countries to climate risks and natural disasters. The southern region of Honduras, which is part of the Dry Corridor in Central America, has suffered from one of the worst droughts in decades. In line with global trends and to assist in addressing the recurrent drought situation, the project aims to enhance resilience to multi-threat scenarios, focusing on drought in communities located in the Dry Corridor of Honduras.

- Case & Results -

- Overall, the project will:
 1. Increase the local population's knowledge and skills to manage climate variability risks.
 2. Improve capacity of local emergency committees for monitoring and forecasting droughts.
 3. Implement small-scale water storage infrastructures in the target communities.



Organization of community disaster training courses

Image source: ICDF



Construction of small community water storage facilities

Image source: ICDF

Organization of farmer field training

Image source: ICDF



- Sustainable Goals-

