

# **Promoting participatory ICTs for adding value to traditional knowledge in climate change adaptation, advocacy and policy processes in the Caribbean**

**Final report on activities conducted under  
Contract signed August, 2012**

## **1. Background and introduction**

A range of initiatives have been implemented at the global level to assist African, Caribbean, and Pacific countries to adapt to climate change for example the National Adaptation Programmes of Action (NAPAs) provide a process for Least Developed Countries (LDCs). In addition, the value of grassroots involvement in climate-related decision-making has received attention in several other official climate policy documents starting from Article 6 of the United Nations Framework Convention on Climate Change (UNFCCC) (UN, 1992, p. 17). Nonetheless, minority groups including indigenous peoples in many developing countries, whose livelihoods are tied to the sustainability of natural resources, are still largely excluded from climate-related decision-making.

Impacts of climate change in the Caribbean were projected to include sea level rise, ocean warming, and changing rainfall patterns. These impacts are having a significant economic and social impact. These events have caused the diversion of limited resources from other development priorities towards relief, rehabilitation and reconstruction activities.

The Caribbean Natural Resources Institute (CANARI), the Technical Centre for Agricultural and Rural Cooperation (CTA) and the University of the West Indies (UWI), St. Augustine implemented a project to pilot the use participatory three dimensional modeling (P3DM) as a tool to incorporate and recognise local and traditional knowledge and values into decision making on climate change adaptation. The project received additional support from the United Nations Development Programme Global Environment Facility Small Grants Programme (UNDP GEF SGP) and The Nature Conservancy (TNC) and was executed in partnership with the Tobago House of Assembly (THA). The follow-up workshop was funded by the Embassy of the Federal Republic of Germany Port-of-Spain and production of the policy brief was co-funded by the MacArthur Foundation.

This project was implemented from July 2012 to September 2013.

## **2. Project objective and purpose**

The overall objective was: 'Increased engagement of stakeholders to adopt Information and Communication Technologies (ICT) to influence climate change adaptation policy processes

The project purpose was: 'Local and traditional knowledge and values are recognized and made more authoritative in decision making about climate change adaptation in the Caribbean region

### 3. Project beneficiaries

#### *Direct Beneficiaries:*

- 106 residents of Tobago which included community leaders, fisherfolk, farmers, tourism entrepreneurs, non-government organisations (NGOs) and community-based organisations (CBOs), policy makers and resource managers in government agencies and 19 secondary school students and teachers from secondary schools in Tobago;
- 22 trainee facilitators from nine Caribbean countries drawn from government, inter-governmental organisations, civil society, and academia; and
- 13 observers which included representatives of government agencies, academia, NGOs and CBOs from Trinidad.

#### *Indirect beneficiaries:*

Populations in Small Islands Developing States (SIDS) in the Caribbean region who have a better chance to contribute to policy development concerning climate change adaptation as a result of participating in P3DM processes to address the impacts of climate change.

### 4. Project activities

#### 4.1 Overview

The activities for this contract comprised:

- Building a P3DM of Tobago and training of trainers from the Caribbean region;
- Hosting of a feedback and reflection workshop to meet with key stakeholders in Tobago; and
- Documentation and information dissemination.

All activities have been successfully completed as outlined in the sections below.

#### **4.2 Activity 1: Building a P3DM of Tobago and Training of Trainers from the Caribbean region**

The building of the three dimensional model, the training of trainers, and facilitating a participatory video process to conduct an evaluation of P3DM were run in parallel sessions from 28<sup>th</sup> September to 12<sup>th</sup> October 2012.

#### ***Constructing the three dimensional model***

##### Mobilisation of local residents:

CANARI drafted a [mobilisation plan](#) to stimulate interest of key stakeholders to participate in the P3DM exercise in Tobago. The mobilisation plan included a work plan which scheduled activities from July to October 2012. A key strategy that contributed to successful execution of the plan was stakeholder identification and analysis to identify residents of Tobago, with interest, rights and responsibilities in natural resource-based livelihoods, to participate in the various model building activities. Strategies used to mobilise residents of Tobago included regional mobilisation meetings, featuring the project on the local radio station's morning programme and 10 face to face visits with key stakeholders and presentations to community groups.

12 participants attended a [one-day introductory and planning workshop](#) on 25 September 2012.

The objectives of the workshop were to:

- introduce the project to participants;
- enhance the understanding of participants about climate change and its impacts on natural resources and natural resource-based livelihoods;
- introduce key concepts in participatory three-dimensional modelling;
- develop a legend for the P3DM exercise; and
- select a name for the exercise in Tobago.

Lectures, a video presentation and facilitated discussions were used to enhance the understanding of participants about climate change and its impacts on natural resources and natural resource-based livelihoods and on key concepts in participatory three-dimensional modelling. Participants brainstormed and produced an extensive listing of areas, lines and points that they believed would be important information needed in decision making about climate change adaptation in Tobago. This listing was then discussed and finalised and was used as the draft legend for the model building exercise. A title for the exercise was proposed to participants and a discussion was facilitated about the elements to be included in the title. The participants decided on the following title "She becomes more beautiful: Capturing the essence of Tobago today for a greater tomorrow."

#### Model building:

The [model building](#) was conducted from 28 September to 12 October 2012. During the first 5 days the blank model was constructed with the assistance of students from secondary schools in Tobago and the trainees. Residents of Tobago populated the model from the sixth to the fourteenth day. A team of residents attended a session on the fourteenth day of the model building to analyse lessons learned from the activity and prepare statements on the impact of climate change on their livelihoods, their approaches to coping with the impacts and their recommendations to policy makers on decision making about planning for climate change. The outputs of this session were presented at the Handover Ceremony on the following day, when the model was presented.

#### ***Training of Trainers workshop***

The first five days were dedicated to the introduction of basic concepts on participatory approaches, facilitation, geographical information systems (GIS) and P3DM. Trainees were exposed to range of interactive and creative facilitation methods, including visual representation, brainstorming, round robin, small group work, plenary discussion, individual reflection, role play, peer coaching, video, games, energisers, individual reflection and questioning. Trainees also had lectures on GIS and P3DM building. Training on evaluation and participatory video was done on Day 5.

Day 6 to 11 were allocated to action learning. The trainees co-facilitated the three dimensional model making with the residents of Tobago, assisted with the building of the model and shot clips for inclusion in the participatory video. Each daily session began with debrief of lessons learned from the previous day and ended with viewing of video footage captured on that day. Participants were involved in chairing each day's sessions, rapporteuring, reporting on the general mood, capturing footage for the participatory video and preparing and posting Facebook updates.

Day 11 and 12 were used to demonstrate to trainees how to capture and digitise the information accumulated on the model, edit the participatory video footage and prepare for the Handover Ceremony.

#### **4.3 Activity 2: Hosting of a feedback and reflection workshop to meet with key stakeholders in Tobago**

27 participants engaged in a [two-day follow-up workshop](#), funded by a grant from the Embassy of the Federal Republic of Germany Port-of-Spain to CANARI, held from the 24-26 October 2012 in Tobago to further build their understanding of the concept of climate change, further analyse lessons learned from the P3DM activity about the impacts of climate change on their livelihoods, further identify and examine their approaches to coping with the impacts of climate change and to create a plan for dealing with the impacts of climate change. This was documented in a [Civil Society Agenda](#) to address the impacts of climate change in Tobago.

The objectives of the exercise were as follows:

- To enhance the understanding of civil society about climate change, the impacts on natural resources and natural resource-based livelihoods, and potential actions to address this.
- To enhance the awareness and understanding of civil society about what the Government of Trinidad and Tobago officially plans to do to address the impacts of climate change on natural resources and natural resource-based livelihoods.
- To support civil society to develop a plan of action on what they will do to address the impacts of climate change on natural resources and natural resource-based livelihoods.
- To support civil society to communicate their priorities for action to address the impacts of climate change on natural resources and natural resource-based livelihoods to key decision makers in Government.

The workshop contributed to enhancing civil society's understanding about climate change, the impacts on natural resources and related livelihoods, and potential actions that could be undertaken. Participants reported feeling empowered to discuss and to take action on climate change issues. Participants noted the significant value the model added to the exercise in terms of facilitating exchanges of experiences when participants responded to the impacts of climate change. It was particularly noted that the model improved clarity when conveying key messages between resource users and Government personnel.

#### **4.4 Activity 3: Documentation and information dissemination**

This activity entailed using various products to disseminate lessons learned and experiences on climate change. Workshop reports were produced and disseminated to participants for each workshop and media releases were produced and disseminated to promote key milestones in the project. 10 [blog](#) posts were used to generate information on the building of the model in Tobago, during the period 28 September to 2 October 2012, to keep national, international and regional audiences informed about the event. These blog posts were posted by CTA and CANARI. CANARI posted these on the project

webpage on CANARI's website. CANARI also posted the daily rapporteur reports prepared by the trainees on our Facebook page during the training of trainers.

400 copies of a 4-page policy brief in three languages ([French](#), [Spanish](#) and [English](#)) were produced and disseminated via listservs, emails to specified target audiences, hard copies at strategic regional events (for example United Nations Education Scientific and Cultural Organisation (UNESCO) Sub-Regional meeting on environmental policy formulation and planning in the Caribbean, 15-16 May 2013, United Nations Development Programme (UNDP) Knowledge Fair, 5-6 June 2013, and the 7<sup>th</sup> Annual Caribbean Conference on Comprehensive Disaster Management, 10-13 December 2012) and is available on the project webpage on CANARI's website. This was co-funded by a grant from the MacArthur Foundation to CANARI.

A 15 minutes 56 second [video documentary](#) on the P3DM activity was produced and is posted on CANARI's Youtube channel.

## 5. Results

Results of the project are as follows:

- P3DM model of Tobago completed and handed over to national stakeholders for use in policy development and decision making to build resilience to climate change and extreme climatic events in Tobago;
- 22 trainers from national and regional organisations have built their capacity in using PGIS/P3DM to facilitate participatory planning for climate change adaptation;
- 22 trainers from national and regional organisations have built their capacity in facilitating PV processes;
- At least 100 persons from communities and decision-makers from key sectors in Tobago have increased understanding, capacity and motivation to take joint action to build resilience to climate change and extreme climatic events;
- The process and experiences in the use of PGIS / P3DM (and related ICTs) to value traditional knowledge in decision making about climate change adaptation were documented and shared by a range of means including multimedia, Web 2.0 and social media; and
- Reports and a policy brief were produced and disseminated to climate change focal points, key government agencies in at least 15 countries in the Caribbean and at high level regional fora.

## 6. Key lessons learned and recommendations

### **6.1 Building a P3DM of Tobago and Training of Trainers from the Caribbean region**

#### ***Constructing the three dimensional model***

##### Mobilisation of local residents:

- Site model building venue needs to be in a location frequently traversed by informants.
- Promote the event to policy makers and give them frequent updates to maintain interest on the event.

- Work through key informants such as government Extension Officers and prominent NGOs to mobilise informants and publicise the event.
- Continue mobilisation efforts through model building to increase opportunities to cover gaps.
- Visit local media and identify a person to liaise with and update on model building activities.
- Schedule informants attending the model building exercise for three to four hours per day instead of two consecutive days as this arrangement allows them the opportunity to continue earning a livelihood while contributing to the creation of the model.

#### Model building:

- Review base maps carefully to ensure that data is accurate. Ensure contours on all sheets are at the required intervals, and units of measure are consistent and outer islands are present.
- Orient the informants to the project and model building to provide them with a context for their work.
- Orientation should not be overly lengthy so that it significantly shortens the informants' time available to populate the model.
- In instances where the model has to be formulated in segments, it is best to present the model as a single unit to participants initially to assist them with orientation then move the segments apart to work.
- Using the correct pins, yards and twines are not an essential first step when working with the informants; the emphasis should be on facilitating their contribution to the building of the model.
- Include, as a culminating activity in model building, a session to facilitate analysis with the informants so that the information assimilated can be used to advise action.

#### ***Training of trainers***

- The lead facilitator should include in a daily debrief a review of facilitation skills to strengthen trainee capacity in facilitation.
- Rotate facilitators during model building to allow time to rest and refresh.
- Give trainees the opportunity to trace, cut, glue and paint as this improves their understanding of what is required by the informants.
- When building models in segments, assign facilitators to each table to contribute to and maximise coverage of informants.
- While facilitating the building of the model, facilitators should document information from informants on the impacts of climate change on their livelihoods, their approaches to coping with the impacts and their recommendations to policy makers on decision making about planning for climate change.
- Facilitators should be assigned into groups with specific roles and responsibilities (e.g. model, participatory video, blogging).
- The multiple activities taking place at the same time with various outputs - namely model building, participatory video, training of trainers, blogging, and documentary production - made concentration on analysis of the knowledge gained for input into decision making challenging for the facilitators.

#### ***6.2 Hosting of a feedback and reflection workshop to meet with key stakeholders in Tobago***

- Augment participation in the feedback and reflection process by complimenting the workshop with activities such as structured interviews to reduce the time participants are away from earning a livelihood.
- Coupling the drafting of the civil society agenda with the feedback and reflection exercise soon after the building of the P3DM of Tobago was useful in maintaining momentum of participants in addressing the impacts of climate change.
- The impact of the model building for the people of Tobago needs to be evaluated and lessons learned documented and shared.

### **6.3 Documentation and information dissemination**

- Traditional dissemination pathways such as radio segments, face to face meetings and workshop reports are effective in mobilising and keeping participants interested in model building.
- Stored blog posts recording the P3DM process are useful repositories of information on the process.
- Producing a video documentary on the P3DM process is an effective pathway for stimulating interest in the use of tool.
- Including the case of using the P3DM methodology in Tobago on the policy brief along with other tools to facilitate the inclusion of traditional knowledge in decision making contributed to creating a substantive position on using traditional knowledge in decision making to present to policy makers.

## **7. Conclusion**

The P3DM pilot in Tobago built the capacity of the trainees to facilitate participatory processes and in particular improved their understanding of and appreciation for the value of traditional knowledge in decision making about climate change.

Sustained assistance is needed to support the use of this tool in the Caribbean, including through strategies such as exchange visits among facilitators in the region. Action learning, analysis and documentation are needed to further refine the P3DM process for the Caribbean region as a tool in facilitating participatory natural resource management.