

Mission Report

Participants:

Bernadette Lindo-Sylvester	Permanent Secretary (PS): Petite Martinique and Carriacou
Martin Barriteau	Project Coordinator (PC): UNDP-ICCAS
Kadijah Edwards	Technical Officer (TO): UNDP-ICCAS
Lorenzo Harewood	Technical Administrative Associate (TAA): UNDP-ICCAS
Devon Baker	Manager: Carriacou Multi-Purpose Center
Dexter Miller	Executive Officer: Ministry of Carriacou and Petite Martinique
Kasha Walker	Community Development Officer: Ministry of Carriacou and Petite Martinique







On behalf of:

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Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety



Mission Summary:

The UNDP-ICCAS project team visited the Grenadian jurisdictions of Carriacou, Petite Martinique and Isle De Rhonde over the period September 21st to 26th. This objectives of this initiative were to broaden the awareness of residents to the UNDP-ICCAS climate change fund, as well as to visit various sites and communities vulnerable to climate change. In Carriacou and Petite Martinique, community meetings were held to gather information from the locals about their experiences and suggestions to talking various issues related to climate change.

The team completed the objectives in an effective and efficient manner while obtaining a vital network of key resource persons that live in the areas of concern.





SEPTEMBER 22nd

MEETING WITH PERMANENT SECRETARY

Participants:

Bernadette Lindo-Sylvester	Permanent Secretary (PS): Petite Martinique and Carriacou
Martin Barriteau	Project Coordinator (PC): UNDP-ICCAS
Kadijah Edwards	Technical Officer (TO): UNDP-ICCAS
Lorenzo Harewood	Technical Administrative Associate (TAA): UNDP-ICCAS
Devon Baker	Manager: Carriacou Multi-Purpose Center



The ICCAS Team was formally welcomed to Carriacou by Permanent Secretary (PS) Bernadette Lindo-Sylvester. She expressed her satisfaction in knowing that a climate related initiative was integrating the Carriacou and Petite Martinique (PM) jurisdictions. She then invited the Project Coordinator (PC), Mr. Martin Barriteau, to give a more precise overview of the UNDP project and the particular objectives of the visit.





The PC first thanked the PS Lindo-sylvester for the opportunity to meet with her regarding this project. He then introduced the other members of the team, Lorenzo Harewood and Kadijah Edwards; the Technical Administrative Officer (TAO) and Technical Officer (TO) respectively. The PC gave an overview of the ICCAS project and focused on substantive aspects such as

- Start time and duration (2013 2016)
- Donors (BMU, and extension of the German Government)
- National Implementing Agency (Ministry of Agriculture)
- Implementing Agencies (GIZ and UNDP)
- UNDP Components (Awareness and building national resilience via community-based Climate Change initiatives)
- Climate Change Adaptation Fund (structure, size, scope, activity timelines)

PS Lindo-Sylvester welcomed the initiative and asked that the team also take a look at some other projects ongoing in Carriacou such as one being offered by a local pharmacy to tackle the issue of chikungunya. This was targeted towards people who could not afford to buy the necessary medicines to deal with the ailments of the disease.

The PC added that climate change covers a vast number of particular areas and Health, given the recent incidence of chikungunya, was a key area under the focus of the team and the project.

The PS acknowledged that there was a joint tripartite agreement with the 5Cs initiative in Carriacou and also that the reverse osmosis plant in Carriacou should be completed by month end, with a variance of about 2 to 3 days to facilitate training on operating the system. The solar field in PM is ready to run. The PS further acknowledged that even though these initiatives will have an impact at ensuring a more sustainable collection of water, the more prominent issue is one of distribution. The network is in need of extending and upgrading in instances where there is evident pipeline erosion or no existing pipeline. She further stated that PM was traditionally utilized water harvesting as a primary source but in recent times there has been little or no rain, making that harvesting process difficult.

An earlier desalination system introduced by NAWASA was met with largely unfavorable reactions from the locals. The issue was one of quality rather than distribution as the high salt







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content was very noticeable and people refused to utilize this water. This evidently attributed to the lack of profitability for NAWASA on this venture.

The PS highlighted the timeliness of this project in Carriacou especially as the local farmers had recently signed an agreement with the Marketing Board to supply a predetermined quantity of crops. Adequate water harvesting techniques could allow them to deliver on that guarantee.

The PC said initiatives like this were very important and could be facilitated by the Climate Change Adaptation Fund (CCAF). He further stated that the CCAF will be implemented with a view to incorporating community based proposals derived from less formal groups. This would be facilitated by a more direct monitoring and procurement intervention at the level of the project team.

The PS identified some clubs in Carriacou and expressed her hope that the 4H groups would work with the agronomy sections to help develop the sector.





CARRIACOU SITE VISITS

Participants:	
Martin Barriteau	Project Coordinator (PC): UNDP-ICCAS
Kadijah Edwards	Technical Officer (TO): UNDP-ICCAS
Lorenzo Harewood	Technical Administrative Associate (TAA): UNDP-ICCAS
Devon Baker	Manager: Carriacou Multi-purpose Center

Desalination Plant - Seaview



The team, guided by Devon Baker, visited the newly build desalination plant in Seaview. This modern facility will have the capacity to process 80,000 gallons of water per day from the sea and is expected to begin operations from the end of September 2014. Its, unique location is ideal for allowing a naturally gravity-driven distribution system when such a time presents itself.





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During the first few months of operation there will be no pipeline distribution and residents will have to collect water directly from the plant.



Running such a plant will demand a high degree of energy and therefore arrangements have been made to allow the plant to source energy from a nearby solar farm. This arrangement allows for a more sustainable approach to operations and further allows for an affordable rate for water that is consistent to the rates in Grenada. The water is expected to be sold at less than 5 cents per gallon.





Plant Nursery – Belair



The plant nursery in Belair produces a mix of ornamental and garden/crop plants and supplies mainnly to locals in nearby communities. The nursery would require a greater variety of plants in order to enable it to assist in creating a stronger agricultural sector on the island.







<u>Solar Farm – Limlair</u>

This solar farm is going to be the key source of energy for the desalination plant in Seaview. It is expected to generate around 130kw of energy to be added to that extent, with any excesses being fed to the GRENLEC grid. Currently the structure is fully intact but it is just awaiting the operations at the desalination plant to start for its solar initiative to begin.

The site at Tibeau offered the team an opportunity to witness first-hand the effects of extreme shoreline degradation caused largely by rising sea levels as a result of climate change.



This location was made famous by its numerous gravesites which have now become submerged and/or destroyed by the sea.





At Laureston Point the team also noticed a huge imposition of a wrecked metal ship. An overhead (Google Earth) view, as shown below, adds to the impression of the impact of this ship on the shoreline.



It was noted that it might be beneficial to the marine habitat to have this ship towed further out to the reef and become part of the natural habitat for fish and other species. This was identified as a large undertaking and would require thorough preliminary inspection to ensure that the contents of the ship as it stood today, do not present any immediate harm to the marine habitat before any work commenced.

It was also noted that further to the east of the shoreline, along the driveway, a few gabion baskets were installed. There was evidence of some level of interaction with possible high tides as a substantial quantity of sand was found in the roadway as well.





It was further noted that this site could serve well for a coastal project focused on reducing the impact of waves. One example was made of clasping tires together and filling them with sand to form a rubberized barrier along the shoreline.



The team also visited the Bishops College Secondary School where a number of issues were presented centering on water harvesting and water diversion. There were clear indicators of natural impediments to the water flows in circumstances of heavy rain as some drains were clogged with vegetative material and other man-made materials. Closer observations revealed dilapidated infrastructure in some of the drains.

It was noted also that the water gathered from the local water truck was not sufficient enough to meet the demand at the school and as such, students often use the water captured at the school for washing and even drinking, even though the latter is strongly discouraged.





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The final site visited by the team in Carriacou was that of the Carriacou Farmers association where the team was made aware of the intent of the local association to get its structure completed to facilitate more activities. It was noted that the farmers' association had a vision of creating a central wholesale department which could then operate similar to an agricultural cooperative to effectively organize their crops to meet local demands. In addition, the center would serve as an ongoing knowledge management hub for the families of the farmers in an attempt to preserve the farming community and create a sustainable approach to Carriacou local produce.



Pilot Programme on Integrated Climate Change Adaptation strategies



CARRIACOU COMMUNITY MEETING

Location: Carriacou Multi-Purpose Center, Hillsborough		
Participants:		
Martin Barriteau	Project Coordinator (PC): UNDP-ICCAS	
Kadijah Edwards	Technical Officer (TO): UNDP-ICCAS	
Lorenzo Harewood	Technical Administrative Associate (TAA): UNDP-ICCAS	
Devon Baker	Manager: Carriacou Multi-Purpose Center	



Mr. Baker welcomed invited guests to the meeting and introduced the residents to the ICCAS team. He went on to give an overview of the project and welcomed Martin Barriateau (PC) to further expand on its particulars.





Mr. Barriteau welcomed the residents and asked them all to identify what area(s) of Carriacou (community or entity) they were representing. The PC identified 2 primary objective for the meeting:

- 1. Raising awareness among the residents as it pertains to Climate Change and its potential impact
- 2. Collecting feedback form the community about some of the challenges they faced and suggestion, if possible, to tackle the issues



He then gave an overview of the ICCAS project and focused on substantive aspects such as

- Start time and duration (2013 2016)
- Donors (BMU, and extension of the German Government)
- National Implementing Agency (Ministry of Agriculture)
- Implementing Agencies (GIZ and UNDP)





- UNDP Components (Awareness and building national resilience via community-based Climate Change initiatives)
- Climate Change Adaptation Fund (qualification, structure, size, scope, activity timelines)

Questions and comments were welcomed from the residents and the following was taken into consideration.

Comments / Questions raised from the community

- Is there a limit on the number of project submissions per community Group?
- Is there a limit to the types of climate change projects to be funded?
- Education is a vital components of any project and perhaps a different approach or a mix of approaches are needed to effectively sensitize the public about climate change.
- Some communities such as the fishermen cannot continue doing things the same way as before if Climate Change is to be tackled. Laws relating to Marine Protected Areas need to be respected and strictly enforced.
- > Awareness programmes should be under one umbrella of Education but then disseminated to various sectors (Tourism, Fishing, and Farming) to cater to its specific focus.
- Distribution system and water harvesting are major issues.
- NAWASA owned systems not maintained and if possible some community intervention to assist in maintenance could be more effective.
- Coastal protection and coastal erosion is of major concern as well.
- Discussions with private land owners to allow for greater awareness on their parts of initiatives that could positively impact on eroded lands they own.





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- > Deforestation laws need to be more strictly observed.
- Development of an Environmental Education Program for the primary and secondary schools would be very beneficial.
- > Including Climate Change into the school syllabus is a good idea.
- While developing these wonderful ideas and suggestions the residents should also be aware of their limitations.
- Impact of other large projects (Marine Project) having a negative impact on the drainage of other areas
- A concept of ownership must be driven into the minds of the communities to make any initiative in Carriacou sustainable.
- Is there a specific format for the proposals?

Mr. Barriteau thanked the residents for their attendance and commended them for their contribution to the meeting. He urged them to take advantage of what the fund had to offer them in the area of climate change and further urged them to make submissions in a timely manner once the call for proposal is made.

Mr. Baker thanked the ICCAS team for organizing the meeting and asked residents to work together in submitting their ideas to access the fund. The meeting was adjourned.





SEPTEMBER 23rd

PETITE MARTINIQUE SITE VISITS

<u>Participants:</u>	
Martin Barriteau	Project Coordinator (PC): UNDP-ICCAS
Kadijah Edwards	Technical Officer (TO): UNDP-ICCAS
Lorenzo Harewood	Technical Administrative Associate (TAA): UNDP-ICCAS
Dexter Miller	Executive Officer: Ministry of Carriacou and Petite Martinique
Kasha Walker	Community Development Officer: Ministry of Carriacou and Petite
	Martinique

The team visited a number of sites with a view to identifying possible impacts related to climate change and mapping possible approaches to address problems on the island of Petite Martinique (PM). The island is inhabited by almost 700 persons, according to the latest census conducted by local authorities and has a thriving fishing industry, which is known to produce a significant variety of species for mainland Grenada.

The RACT project was identified as an initiative which was aimed at providing some coastline coverage from the tides. Mr. Miller highlighted a perception of some locals that this project had good intentions but negative consequences on other shoreline areas as the energy form the waves had be redirected rather than reduced or diminished. To that extent, the team was shown some possible areas where this may have taken place.





Mr. Miller further identified problems of land slippage which were directly attributed to the changing and more severe battering of the shoreline waves. In some instances the degradation went beyond the shoreline and large portions of land were identified to be at risk.



The team also took note of the internal risks associated to extreme weather, especially during periods of heavy rainfall. To that extent, areas prone to land slippage were identified. Mr. Miller pointed out the decreased level of low-lying mountain top vegetation as a result of the increasing numbers of wild sheep and goats on the island. These animals basically roam everywhere on the island and graze anywhere they can.





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The team also observed dilapidated water caption structures which were critical to the distribution on the small island. One such structure was also seen on the pre-primary school.





PETITE MARTINIQUE COMMUNITY MEETING

Location: Petite Martinique Resource Center	
Participants:	
Martin Barriteau	Project Coordinator (PC): UNDP-ICCAS
Kadijah Edwards	Technical Officer (TO): UNDP-ICCAS
Lorenzo Harewood	Technical Administrative Associate (TAA): UNDP-ICCAS
Dexter Miller	Executive Officer: Ministry of Carriacou and Petite Martinique

Mr. Miller welcomed those present at the meeting and introduced them to the UNDP-ICCAS team. He went on to give an overview of the project and welcomed Martin Barriateau (PC) to further expand on its particulars.







Mr. Barriteau welcomed the residents and asked them all to identify what area(s) of Carriacou (community or entity) they were representing. The PC identified 2 primary objective for the meeting:

- 3. Raising awareness among the residents as it pertains to Climate Change and its potential impact
- 4. Collecting feedback form the community about some of the challenges they faced and suggestion, if possible, to tackle the issues

He then gave an overview of the ICCAS project and focused on substantive aspects such as

- Start time and duration (2013 2016)
- Donors (BMU, and extension of the German Government)
- National Implementing Agency (Ministry of Agriculture)
- Implementing Agencies (GIZ and UNDP)
- UNDP Components (Awareness and building national resilience via community-based Climate Change initiatives)

Climate Change Adaptation Fund (qualification, structure, size, scope, activity timelines)

Comments / Questions raised from the community

- Petite Martinique (PM) has only two established community groups so the project should not expect a huge variety as far as NGOs are concerned.
- PM should be considered one community under the project given its size, population and substantial issues.
- > Are there any limitations to the number of proposals that can be submitted from PM?
- The wild sheep are a huge concern as far as land slippage at the peak of the mountains are concerned. Containing them may not be so easy because the owners of the sheep are not necessarily owners of land.

Deutsche Gesellschaft für Internationale

Zusammenarbeit (GIZ) Gmbl

> Water storage and distribution is a major issue, particularly during the dry season.





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- Considering using the glut of female sheep as an alternative source of income is an option but PM does not have a sufficient market for that produce.
- The issue may be one of marketing beyond PM as other jurisdictions, such as mainland Grenada do not exhibit a gender preference as far as lamb is concerned. Creating this alternative market could allow vegetation at the peaks to thrive, thereby reducing the risk of land slippage caused by extreme events of climate change.
- Adaptation may mean giving up one way of living for another but here are also short and long term incentives to this process.
- The reef fish species has drastically decreased and long-lining has become a prominent method for the local fishers.
- There is a presence of lion fish around the reef but further surveys must be conducted to ascertain the numbers.
- Agriculture is a welcoming consideration for many residents and another process that can help prevent the landslides at the mountain peak.
- > There is a shortage of Scuba-Certified persons who go diving.
- > Can the fund help at providing fish pots?
- The first and most important thing to be done is educating residents and making them aware of all that has been discussed and that can be done as far as these projects are concerned. Before any projects, people should be educated about climate change. Perhaps a census should be incorporated to get the views of the residents.

Mr. Barriteau thanked the residents for their attendance and commended them for their contribution to the meeting. He urged them to take advantage of what the fund had to offer





them in the area of climate change and further urged them to make submissions in a timely manner once the call for proposal is made.

Mr. Miller thanked the ICCAS team for organizing the meeting and asked residents to work together and meet shortly thereafter to share their ideas for projects related to the fund. The meeting was adjourned.





SEPTEMBER 25th

ISLE DE RHONDE SITE VISITS

The island of Isle de Rhonde is located 9.5km to the east of the coastline of Sauters Bay. It comprises less than 15 households and fishing is the predominant economic activity among residents.



Locals guided a tour of existing water catchment structures. The condition of this system was inappropriate for regular use as it required a great degree of cleaning both in and around the structure, where overgrown vegetation was also observed.

The team was then taken to see some of the residents further inland and observed many improvised domestic water catchment systems. Some residents had as many as 15 to 20 individual drums dedicated to water harvesting, many of which were uncovered and exposed to the elements. The team noted that this community could benefit from water tanks which would eliminate the need to stockpile so many different and smaller tank systems. However, it was







further noted that an assessment of the infrastructure the houses, in particular the roofs would need be considered to as а supplementary project activity in any discussion to install water tanks. The residents expressed water harvesting to be their major issue, particularly during the dry season.

Considerations for installing more effective domestic water systems were also given against the backdrop of the agricultural activity that locals engage in. to that extent a wide variety of agricultural produce was also observed on the island; used for both domestic consumption and



trade with other nearby islands, including mainland Grenada.



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