



ADAPTATION FUND

Project Launch

An Integrated Approach to Physical Adaptation and Community Resilience in Antigua and Barbuda's Northwest McKinnon's Watershed MINUTES

Tuesday 1st August 2017

Department of Environment Conference Room

	<p align="center"><u>Opening and Context Setting: Community Background by Ministers</u></p>
<p><u>Opening and Context Setting: Community Background by Ministers</u></p>	<ul style="list-style-type: none"> • The York's Community area is particularly affected by flooding. Water can rise to a height of 3ft in homes, during a storm. • Development, especially the use of concrete structures prevents water absorption, which worsens flooding. • Another problem is the backup of water from the salt pond, when it rains. • There were two disabled persons needing shelter in the last storm. Provisions need to be made for transporting disabled persons and ensuring the shelters are suitable for them. • Public works needs to complete the sidewalk and roads to reduce flooding. • The hope is that Antigua would be leading the charge in climate adaptation in the Caribbean. • Antigua has several achievements in environmental protection such as the banning of plastic bags in every supermarket in Antigua and the polystyrene ban has just been introduced. • Antigua is one of the first countries to access funds from the AD.

	<ul style="list-style-type: none"> • Cashew Hill area has a very serious flooding problem. The Adaptation Fund will provide funding for Woods Estates and Gambles to Southwest Mckinnons in Yorks. Some environmental problems facing these areas are: flooding, mosquito infestation and resulting diseases and the smell of stagnant water. • One of the problems is that heavy duty equipment used to remove grass removes soil from the trenches as well. This leads to more water stagnation. • This project will provide low interest loans to people to improve their homes, for climate change making them ‘Climate Proof’.
	<p><u>Setting the Scene Presentation</u></p>
<p><u>Setting the Scene by Ambassador Diann Black-Layne, Director of DOE</u></p>	<ul style="list-style-type: none"> • The DOE is very excited about the possibilities of his project. It is important to have the cooperation of all agencies in order to access funding from the international community (Department of Public Works, Legal Affairs, Ministry of Finance, NODS, Social Services and other services). • Ministers and members of the public are truly starting to understand effects of Climate Change and how it is impacting our daily lives. • The impacts of climate change are visible among a variety of sectors, insurance, healthcare etc. Increasing temperatures have an impact on the behavior of the community. We have to get prepared for these changes. • We are starting with one community at a time: the Box Hand Project. First, it will be Yorks and Mackinnons, then Cashew Hill and finally Bolans. • Passage of legislation in 2015, there was the design of a fund, but it was not very efficient. • The GOAB budget process usually lasts 18 months. With the international community it’s 4 years. This shows that the government budget process is more efficient. The SIRF Fund aims to have a project design similar to that of the government budget. • We will negotiate the financing, monitor and follow all the laws of the country. We will take into consideration the social aspects, we will then build it into the project design, finally everybody assists with the implementation. • We are doing a revolving fund, designed to get equity finance. From the GCF we can get loans (less than 1%), we can get equity (which is not common in Antigua) based on environmental services. • It was challenging to convince the Adaptation Fund that we would be doing a revolving fund program. The revolving fund is the first

	<p>financial product from the SIRF Fund that we will be using. We will be providing financing to civil servants who are first respondents.</p> <ul style="list-style-type: none"> • Applications will begin throughout the month of August. We already had training with the TEC team. We still have some legal matters to resolve, but we are hoping that by the end of October we will have the names of the people who are chosen. We will start with 60 loans which will be part of the pilot programme. By end of 2017, we are aiming to disburse the first loans. • We are also applying for additional financing for Cashew Hill and Bolans. The community buildings who will serve as shelters will be part of the grant. • There is also a project which will allow schools in these communities to install renewable energy to build climate resilience when the grid is off. The clinics will also be able to function with renewable energy. This is the vision that we have for each community, once one is complete, we move to the next community. • The biggest expectation that we have is to have all government agencies to come together and work along to make this project successful. We would like for DCA/Public Works to assist with buildings etc. We would like to hand over to each caretaker ministry. Once we are able to hand off certain aspects to other departments/experts in that area, we can work on getting more money and developing more projects. • All financial aspects of the Adaptation Fund must be transparent. All transactions will be posted on the DOE website.
	<p><u>Implementation Strategy and Updates</u></p>
<p><u>Component 1 updates by Churchill Norbert; Project Coordinator, Department of Environment; Feasibility Study for McKinnon’s Waterway</u></p>	<ul style="list-style-type: none"> • Churchill gave an overview and update on the Special Climate Change Fund (SCCF) Project. He stated that the SCCF Project is the first Adaptation Fund project being executed by the Department of Environment. The SCCF project has paved the way for the Adaptation Fund Project. There are 4 Components of the SCCF project. These are: • Component 1: National capacity for mainstreaming innovative financing for adaptation into policy and planning of three agencies and their sectors . This component focuses on strengthening and regulating the environmental policies and how we can implement measures that are embedded within the building code. • Component 2: Innovative financing mechanisms for adaptation. The revolving fund will provide funding specifically for homes under the SCCF project and this will provide funding for climate adaptation activities.

- Component 3: Cost-effective pilot interventions for climate change adaptation in vulnerable communities and sectors. Alpha Engineering was hired to implement this component. They are responsible for designing a proper waterway from the Woods Pond/McKinnons Pond.
- Component 4: National and sub-regional knowledge and awareness of innovative financing mechanisms and climate change adaptation in the Caribbean.
- Churchill stated that the Department of Environment is working along with the Superintendent of the Prison and the MANA Program– Men Against Negative Attitudes. This program works with prisoners and young men at risk to reduce recidivism rates, and to develop skills to effectively maintain relationships with the women in their family. These young men from the MANA Program will be trained to build their capacity to assist in the technical maintenance of the project.

Update on Alpha Engineering designs

- Alpha Engineering was hired on March 2017 and they are responsible for designing the waterways. According to ALPHA Engineering, keen attention is needed at the Woods Pond. There is major flooding on the Frias Hill Area due to new developments and the pathways for these developments are covered in concrete which inhibits the flow of water causing flooding. The capacity of the Woods Pond should be increased and inlets and outlets should be maintained at all times; since there are many walls that are blocking the natural flow of water.
- Churchill expressed gratitude to the Public Works Department for providing crucial data to ALPHA Engineering so they can create/design their plans. Some of the plans are delayed due to the delay in relaying key data to Alpha. For example: data on the Woods Pond cannot be accessed until the pond is cleaned. The SCCF project will provide the tools needed for the Public Works Department to assist with various projects. It is the goal to climate proof our waterways and the Woods Pond is of great significance. The creation of retention ponds is also key to reducing the impact of flooding. The SCCF Project is funding interventions along Friars Hill Road so it will handle impacts of climate change.

Component 2 updates
by Joan Sampson
Deputy Project
Coordinator;
Department of
Environment :

Survey in McKinnon’s and Demand for Financing Adaptation in Buildings

- Residents demonstrated a keen interest in the project because it would be able to holistically address the issues that their community has experienced over many years. Residents also demonstrated support for the revolving loan scheme with an average of 56% of participants completing loan application forms by the end of each consultation.

Concerns raised which were addressed during the project design phase included:

1. Accessibility to loans / grants by persons with disabilities.
2. Safeguards to ensure home improvement did not equate to increased cost to their renters.
3. Transparency regarding the selection process.

Findings

<p>There is sufficient demand to pilot the Revolving Loan Facility for adaptation.</p>	<p>Ø 38% of the population is interested in loans for adaptation. (Plus a% of the 48% that gave no answer)</p> <p>Ø Target population was estimated at 2,500, the number of households interested in accessing the loans is approximately 950. (82% are homeowners)</p> <p>Ø The number of households both interested and eligible will be approximately 780 households.</p> <p>Ø The target number of loans under the Adaptation Fund pilot is 150 – 200 loans, indicating that the pilot should be oversubscribed, and supporting the original hypothesis of the Department of Environment.</p> <p>Ø The landownership eligibility criteria will not present a large hurdle</p> <p>Ø 82% of the persons interested in loans were homeowners.</p>
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		<p>Ø Loan sizes are likely to be smaller and payback terms longer (a sustainable Debt to Income Ratio for borrowers in target communities)</p> <p>Ø The income of the surveyed population is reportedly low, consistent with field observations and prior assessments of the communities.</p> <p>Ø Adaptation priorities are consistently spread across sectors.</p> <p>Ø Priorities are evenly distributed across hurricane resiliency measures, energy interventions (renewables and efficiency) and water technologies</p>
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<p style="text-align: center;"><u>Revolving “Box Hand” Loan</u></p> <p>Joan also shared on the revolving “Box Hand” Loan. She stated that the SIRF Fund loan terms are unsecured and the repayment is at 2%-4% interest. The loans available will range from EC\$13000-EC\$200,000 at a 5 to 10-year payment plan. Property owners (homes, businesses) in Gambles, Yorks, New Extension, McKinnon’s are all eligible to apply for the loans.</p>		

<p><u>Update on Technical Evaluation Committee Training 19-20 July 2017 by Samuel Henry-TEC Representative</u></p>	<ul style="list-style-type: none"> • The TEC team will assist with technical evaluation of applications for the Revolving Fund. The TEC will be constituted of trained persons within the Public Sector who are experts in the building/home construction, Disaster Risk Reduction and who would be able to address social impacts. Nomination for the TEC included: 2 representatives from DCA, 2 representatives from the Fire Brigade, 2 representatives from the DOE, 1 representative from the PWD, 4 representatives from the A&B Institute of Continuing Education and 2 representatives from the Community Development Division. <p>At the TEC Workshop the following key areas were covered and assessed:</p> <ul style="list-style-type: none"> Ø Transparency and Accountability Ø Environmental and Social Safeguards Ø Assessing the Technical Evaluation Form <p>Component 3 updates:</p> <ul style="list-style-type: none"> • Mapping of stakeholders in the watershed • Climate proofing community shelters • Linkages with other projects (MEPA Trust, GEF Small Grants Programme)
<p><u>Component 3 updates by Lia Nicholson, Project Coordinator; Department of Environment.</u></p>	<ul style="list-style-type: none"> • Mapping of stakeholders in the watershed (identifying stakeholder) • Climate proofing community shelters <p>West Palm Beach, Mckinnons and Yorks Community</p> <ul style="list-style-type: none"> • Linkages with other projects (MEPA Trust, GEF Small Grants Programme) • This component speaks on the social element of the project. An integrated approach is considered to reduce the impacts of flooding, increase financial support and social cohesion. Community consultations started in 2013/2014 at the Cashew Hill, McKinnons and West Palm Beach communities. • Community members are key stakeholders for this project as they are the ones who can properly identify the problems faced and the impacts climate change to their households in

order for us to accurately assist in implementing our Adaptation and Mitigation measures.

- The project invites applications for communal buildings to serve as shelter. There are over 13 community groups and faith based organizations that are within the area that can be supporting organizations. These are

- Anglican Church
- CERT Members
- Community Watch Group
- Fort Road Community Shelter
- Grace Baptiste Church
- Grace Christian Church
- Jehovah Witness Church
- St Andrews Church, Nazarene
- St. Andrews Church
- St. Andrews Youth Group
- Steel Band Group
- Villa Adventist Church
- Yorks Community Group

- The National Office of Disaster Services (NODS) will liaise with the various organizations to identify which organization needs to be climate proofed to act as shelters during natural disasters.

- A documentary called “Vulnerability: The realities of living with a disability” was made in September 2016 featuring the Antigua and Barbuda Association for Persons with Disabilities. Through this documentary, it highlighted many vulnerable people’s poor living conditions and how they have been negatively impacted by climate change. Through this documentary, an operation restore initiative was developed to raise funds to help those in the documentary restore their homes. They have been receiving strong financial support thus far in this regard.

	<ol style="list-style-type: none"> 1. Grants will be awarded to three groups/NGOs/ partnerships to sustain interventions 2. Emotional intelligence- Partnership with American University of Antigua who is currently running an emotional intelligence program. The Importance of emotional intelligence is that it will allow people to deal with personal/ interpersonal issues. These can interfere with the implementation of a project if they are not resolved. 3. Work with schools to collect samples of data – Build the students capacity and get them involved in the collection of environmental and climate change data 4. Men Against Negative Attitudes (MANA) Program – This looks at how the men of this program can receive training that will build on their capacity to help beyond the projects.
<p><u>School Monitoring Program, Partnership with Princess Margaret High School; By Dr. Linroy Christian by Department of Analytical Services Lab</u></p>	<ul style="list-style-type: none"> • Water contamination is very serious. It increases the breeding of mosquitos which will lead to the increase of mosquito borne viruses/illnesses like Dengue, Zika, Chikungunya and any others that may arise. • Interventions- monitoring mosquitos will be a part of this project to expand our scope. Additionally, schools will also be involved in the monitoring process. Students will be able to understand more science related professions that are crucial in Antigua and Barbuda such as microbiologists, molecular biologists, biochemists, analytical chemists, entomologists, virology, bacteriology etc. This program will be piloted with the Princess Margaret School. Education and awareness is key at all levels and it is important to get local communities and schools involved and aware about the entire science around our issues and encourage the use of science. The students can become better advocates and relay information to their communities. They will in turn be more conscious when they build their future homes/businesses etc by applying science in a fundamental way. • The northwest coast has been monitored for several years. The issue of water quality is critically important. If the untreated water is released into the ocean, that coast line will be destroyed. • There is a high contamination risk along the Northwest Coast. Climate change can increase the incidence of waterborne diseases. Fecal matter entering the water system will increase diseases. Mosquito born viruses would be major concerns. There is need for control of mosquitoes in these areas. After cleaning the water ways, larvicides will be

	<p>added to control mosquito breeding. Monitoring mosquitoes was not apart of our program but will be a part of this project.</p> <ul style="list-style-type: none"> • The school component is to teach students that there are opportunities in Antigua in the science field here in Antigua. Biologist, chemists, microbiology, analytical chemists, entomology. All of these disciplines are already there except for entomologists, which will be brought in this component. They will be taught certain techniques that would be used on the beaches at this point, however as they further their education, they will be able to use them after qualification.
<p><u>Mr. Timothy Payne,</u> <u>Representative, Barnes</u> <u>Hill Community Group</u></p>	<ul style="list-style-type: none"> • The reservoir is a heritage site. A community building will be built around the site to include things that would improve aesthetics in the area. It is very difficult to get the communities buy in. The young men who would be able to assist, are not motivated to volunteer. <p>Recommendations to make these adaptation initiatives work at the community levels.</p> <ul style="list-style-type: none"> • Education outreach for the community-We need to use education, to encourage those youth. There is a need to go into these communities to make sure they truly understand what is going on. • The budget for education has to be strong and well planned out so it gets to the targeted areas. • The Barnes Hill Community Group has just launched a scholarship program for the new Winthorpes Primary School in an effort to sensitise them to the need for this community's development. • The Project should also avoid political interferences. • There is a need for linkages between the government and private sector to build up the community. • You have to recruit groups and individuals that are committed to helping. Encourage people in the community to do work, don't always hire outsiders, the people in each community are valuable. Communities are strengthened by working together.
<p><u>Ruleta Camacho</u> <u>Thomas, Deputy</u> <u>Director –DOE,</u></p>	<p><u>Key elements for project success</u></p> <ul style="list-style-type: none"> • Stakeholder consultation strategy is needed for various reasons. We need to know how and who to speak to, and how the public can speak to us. • Who do we need to consult? (Private Sector, Government, Communities)

	<ul style="list-style-type: none"> • Why do we need to consult them? (Assess vulnerabilities, prioritize interventions, raise awareness, present opportunity for feedback) • How will we consult them? (meetings, focus groups, technical discussions, one on one meetings) • How will you know when we are holding consultations? (radio, TV, press releases, social media, word of mouth) • How can you submit feedback? (surveys, emails, contacting DOE), <p>*Stakeholders need to be aware that there is a Risk Registry updated by the Project Manager that that their input may be included.</p>
<p><u>Jason Williams, Data Manager, Department of Management Unit</u></p>	<p><u>Monitoring, Evaluation and Data Management Unit (DMU)</u></p> <ul style="list-style-type: none"> • Expected to provide a monitoring and evaluation plan for the implementation of the Department of Environment’s projects. • The data manager/DMU team, will provide the necessary indicators to facilitate monitoring. • DMU is also responsible to collect data/information and manage the various environmental databases of the DOE. • Monitoring is an ongoing activity that should be documented as tasks are completed. • M&E will provide answers to questions, in a systematic way, on the progress and success of the project and its partners in achieving the desired outcomes and outputs. • Monitoring and evaluation (M&E) is an essential part of implementing the Environmental Protection and Management Act (EPMA, 2015). • DOE is legally required under the EMPA (2015) to maintain an inventory of relevant environmental information that can be used to inform environmental management processes in the country. • The methodology to develop the M&E will involve identifying project results and defining measurable indicators. A combination of qualitative and quantitative data collection methods will be used. • 1991 was the last time there was a State of the Environment Report. A new report is currently being worked on.

Question & Answer

Q: Will there be relocation of persons in the project area?

There are two types of relocation: voluntary and involuntary. We did find some individuals wanting to move, and we can possibly help facilitate that. However there cannot be any involuntary relocation on this project. DCA can take action however, if they find any illegal settlement in the project area, however the project can not initiate this.

Q: The project has nothing in it for data collection as per meteorological data.

This is not a problem, however the MET department has proposed to assist. They would like to know where to locate the stations that would assist in collecting this data. If the MET Office and the DOE work together we can map those that are already on the ground then determine where to locate the others.

Q: Water supply/sanitation/storage are issues that affect this project area. Are there specific strategies in place for these problems under this project?

Waste water is a major issue that was initially included in the project, however the Adaptation Fund considered that more of a development issue. We are currently looking at other projects that can deal with issues like bioremediation and ecosystem service solutions and solutions for Antigua as a whole. As part of the engineering and design of drains, the issue of water treatment has to be taken into consideration. A challenge is that the lands in this area are not government owned. We are realizing a lot of the issues are planning issues. We hope that recommendations and feedback from this project will go into helping future projects be planned properly and helping current issues be resolved.

Q: There was a pond in McKinnons, but WIOC put a pipe through it.

In the 1960's, they put in a pipe that takes jet fuel to the airport, however this is not the cause of the flooding in the area. There are satellite pictures of many houses now, that are in former pond areas. People were sold land in wetland property and it was backfilled to build homes.

Q: Who sold them the land? What happened to the connection between government and environment?

This is a discussion on land rights. People feel because they buy the land, they can do whatever they want. Many ponds are privately owned, but this doesn't mean they can backfill or do what they want. The Development Control Authority will give prospective landowners guidelines for what is possible. The rules exist, but the government needs to enforce their requirements, because it in turn costs the government lots of money to fix issues that were created by poor planning/development control issues. We need to strengthen our land use control systems and move forward in a positive manner. We need to ensure that these issues will not occur in new subdivisions/build areas.

Q: is there provision in the project to encourage homeowners to practice conservation of water and to create better septic systems?

This project looks at many ways to help people. We will be working with DCA to advise homeowners of best practices of water catchment, septic tanks, and various adaptation measures to improve efficiency of systems.

Q: Does the project provide for persons who can not afford the loans?

The community shelters will be outfitted to provide for these persons.

Q: For the adaptation measures of private homes, is the onus on the homeowner to identify the work that needs to be done?

We have a brochure that homeowners can use as a guide. They will fill out the form and it will give them an idea to know what amount of loan to apply for. If there is something they want, that is not in the brochure, then they can contact the TEC team.