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CTCN Impact Description

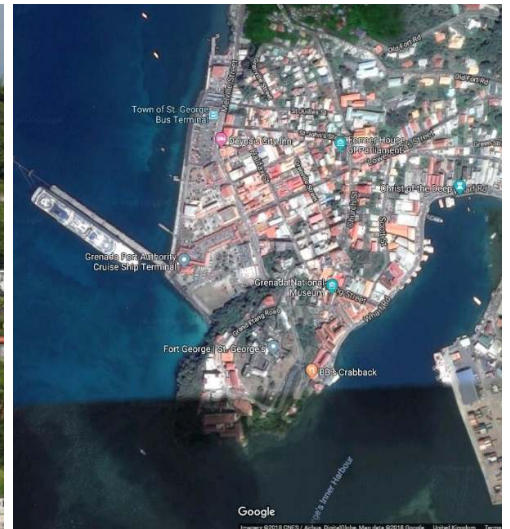
Improvement of water supply management through a GIS based monitoring and control system for water loss reduction in Grenada

Submitted to:

UNFCC Climate Technology Centre and Network
United Nations Industrial Development Organization

Wood Project: 41369

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Report for

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Document revisions

No.	Details	Date
1	Draft Version	20/03/19
2	Final Version	14/06/19

This CTCN Impact Description was prepared using the following document:

- Terms of Reference for the Technical Assistance
- Response Plan for the Technical Assistance
- Examples of a TA Impact Description

<p>Challenge: Approx. 500 characters with spaces</p>	<p>It is predicted that rainfall in Grenada will continue to reduce, lowering to between 25-30 percent of current values by the end of the century. At the same time, it is expected that water demands will continue to rise and increase the pressure upon available future water supplies across the island. This TA will help address these pressures by helping reduce levels of Non-Revenue Water (NRW) by strengthening the capability of NAWASA staff to monitor and address water losses and leakage.</p>
<p>CTCN Assistance: 2 to 4 bullet points. Approximately 450 characters with spaces</p>	<ul style="list-style-type: none"> • Establishment of GIS structure and procedures and providing technical and training advise to NAWASA regarding GIS data management and system integration. • Undertake a South-South learning event with a Caribbean water utility, who has developed a more comprehensive GIS monitoring and assessment system. • Development of District Metered Areas (DMA) pilots and training of NAWASA staff in their use. • Undertaking a final Regional South-South exchange event involving up-to 10 members of the Caribbean water management community.
<p>Anticipated impact: 2 to 4 bullet points to summarise anticipated impact. Approximately 250 characters with spaces. As a minimum, please include one of the following: i) Quantity of greenhouse gas emissions reduced, avoided or sequestered; or ii) Number of people with increased capacity to adapt to the impacts of climate variability and change.</p>	<ul style="list-style-type: none"> • The key anticipated impacts of this TA will be: <ul style="list-style-type: none"> ○ Creation of a server-based Geographical Information System (GIS) for NAWASA - including detailed level training for 5-10 internal staff; ○ Creation of enhanced GIS infrastructure layers which can be used to undertake an effective assessment of Non-Revenue Water (NRW) in selected pilot areas; ○ Provision of a basic internet-based mapping viewer, which will enable a majority of NAWASA staff to visualise datasets held by the organisation; ○ Implementation to a structured assessment method to better quantify the level of Non-Revenue Water (NRW) in Grenada to enable future targeted management to reduce NRW to below the current 22-29% position, and ○ Development of a south-south knowledge sharing network between different Caribbean water management agencies – including participation from a minimum of 10 organisations.
<p>Linkages and contribution to NDC: 2 to 4 bullet points. Approximately 350 characters with spaces</p>	<p>Grenada’s published Nationally Determined Contribution document (available at https://www4.unfccc.int) includes a clear commitment to improving the island’s water resource management as part of its wider adaptation programme. This includes :</p> <ul style="list-style-type: none"> • promoting and maintaining equitable and sustainable use of the water sources and their watersheds.

	<ul style="list-style-type: none"> • improved capture, storage, distribution and conservation of water • increases the adaptive capacity of individuals and communities. <p>Grenada has also recently completed a vulnerability assessment of the water sector and developed a national adaptation plan and action plan for the water sector, mapping and water quality testing of informal water sources. Rain water harvesting activities are currently underway in some remote communities to improve water collection and storage</p> <p>This TA is therefore aligned to the wider objectives of the Government of Grenada to increase the future management and monitoring of water resources and help deliver these important NDC adaptation objectives.</p>
<p>The narrative story: Approximately 1200 characters with spaces</p>	<p>As a small island developing state (SIDS), Grenada is one of the world's most at-risk countries for climate change. The island's freshwater supply is mainly depending on rainfed surface waters (approx. 90%). In the last years, the island experienced two major drought events in 2010 and 2012 which significantly affected the water supply sector. Projections are that rainfall will be reduced by the end of the century between 25 and 30 percent of current climatologically mean values.</p> <p>The National Water and Sewerage Authority (NAWASA), proponent of this technical assistance, is responsible for the provision of potable water and sanitation services for the whole of Grenada.</p> <p>To be effective, NAWASA's overall NRW management needs a structured and systematic approach. Good industrial standard is to establish a detailed monitoring system on water balances of District Metered Areas (DMAs), which allows quick and focused actions to reduce NRW. NAWASA's current structure of the data model, as well as of the linked management processes, requires a complete review and redesign.</p> <p>On this basis, the National Designated Entity submitted a request to the CTCN to assist NAWASA in this endeavour.</p> <p>The objective of this TA is to efficiently reduce the currently high Non-Revenue Water (NRW) in Grenada by strengthening the capacity of NAWASA's staff in the management of a GIS-based monitoring and control system for water loss reduction and leakage detection</p>

<p>Contribution to SDGs: Always include contribution to SDG 13, and to the extent possible, please include contribution to 2 other SDGs, describing the contribution with a few sentence for each SDGs concerned. A complete list of SDGs and their targets is available here: https://sustainabledevelopment.un.org/partnership/register/</p>	<ul style="list-style-type: none"> • SDG 13 – the Technical Assistance will enable Grenada to integrate climate change considerations and adaptation measures into their NPA process – especially in respect to the sustainable management of the island’s finite water resources. • SDG 6 - the Technical Assistance will also support the enhanced availability and sustainable management of water resources within Grenada. This will be achieved through the delivery of enhanced data systems, water monitoring and the MDA pilot/training within the project • SDG 3 – the Technical Assistance will also contribute to the continued provision of safe and available drinking water to the entire population of Grenada. This is a vital element of SDG3 and its aim to ensure healthy lives and promote well-being for all ages.
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