

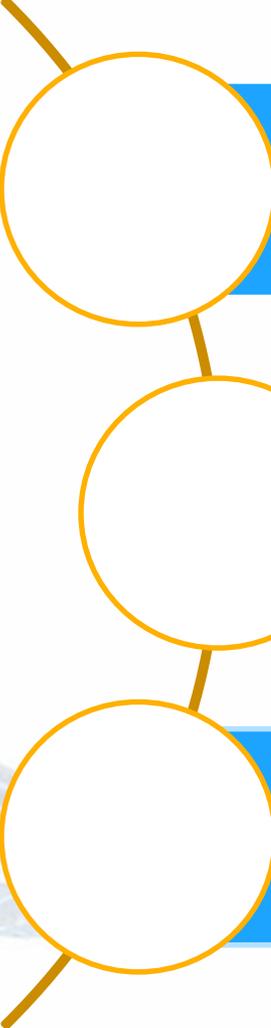
Jamaica's Experience in Integrating Adaptation Planning into the Water Sector

**Presented to: Caribbean National Adaptation Plans (NAPs)
Training Workshop**

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Jamaica Representative**

PRESENTATION OUTLINE



Introduction

**Ministry Responsible for Climate Change and Water
- Ministry of Economic Growth and Job Creation**

**Adaptation Strategies Utilized in the Water
Sector**



INTRODUCTION



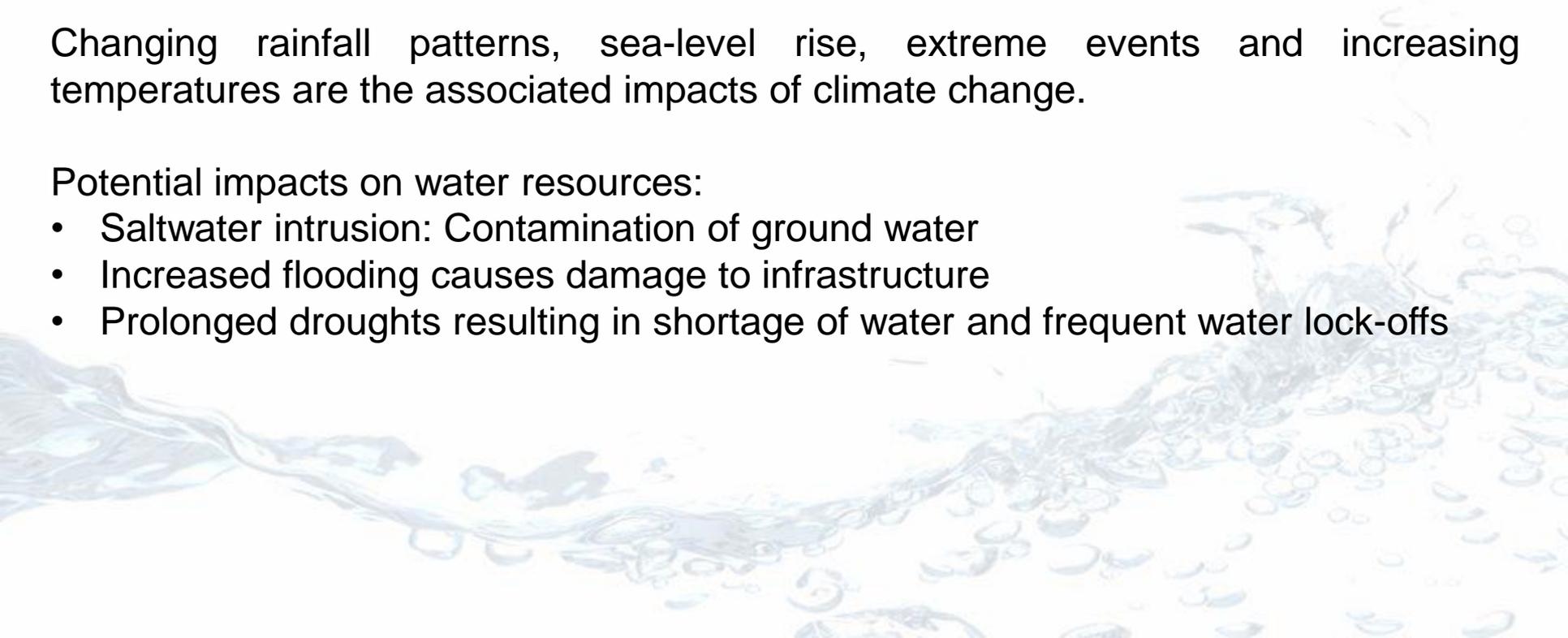
Jamaica has abundant freshwater resources which supports diverse ecosystems. Groundwater provides 85% of the Countries water needs

The demand for water and the exploitable water resources of the island are unevenly distributed. Greatest demand in the south where the populations centres are and most of the available water is in the north

Changing rainfall patterns, sea-level rise, extreme events and increasing temperatures are the associated impacts of climate change.

Potential impacts on water resources:

- Saltwater intrusion: Contamination of ground water
- Increased flooding causes damage to infrastructure
- Prolonged droughts resulting in shortage of water and frequent water lock-offs



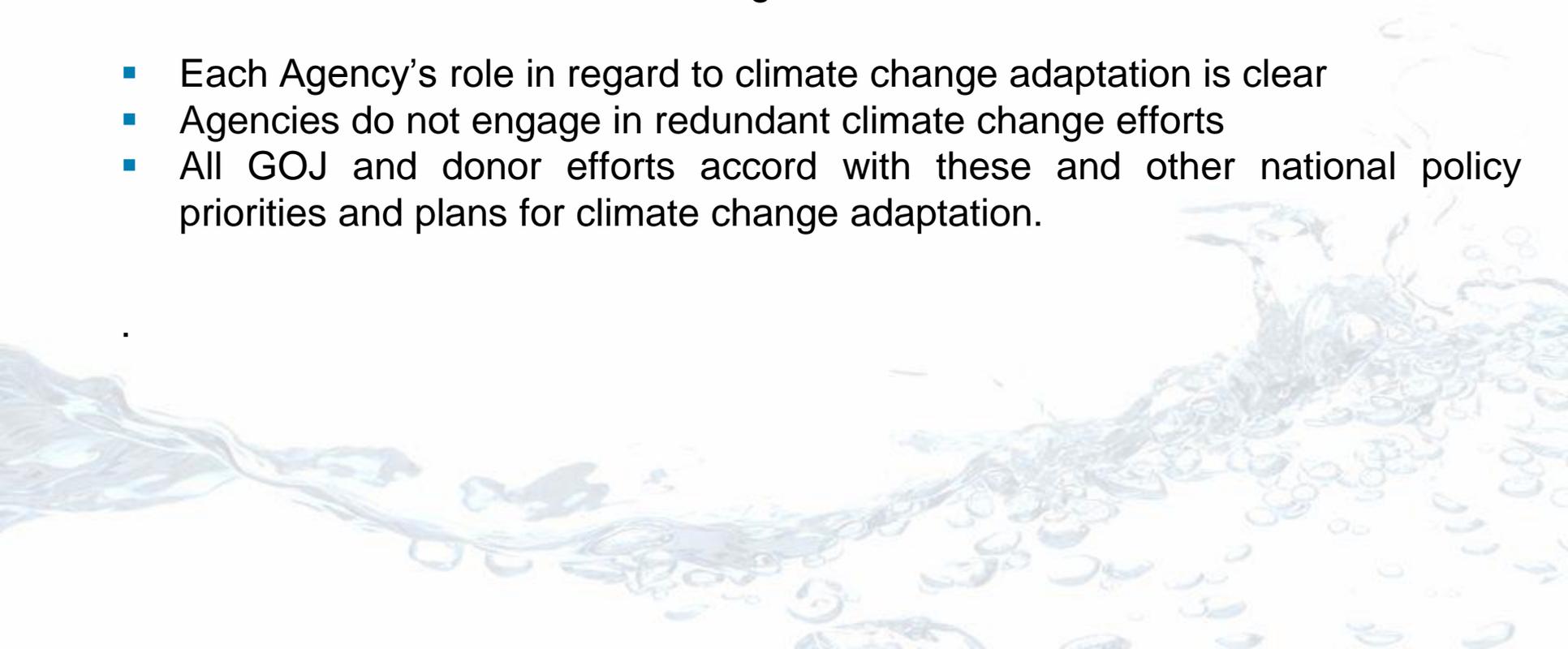
Ministry Responsible for Climate Change



CLIMATE CHANGE DIVISION

The Climate Change Division Coordinates national climate change efforts. The GOJ's policy is that the Climate Change Division will monitor and coordinate national climate change adaptation efforts, including those within the water sector. The role of the Climate Change Division is to ensure that:

- Each Agency's role in regard to climate change adaptation is clear
- Agencies do not engage in redundant climate change efforts
- All GOJ and donor efforts accord with these and other national policy priorities and plans for climate change adaptation.



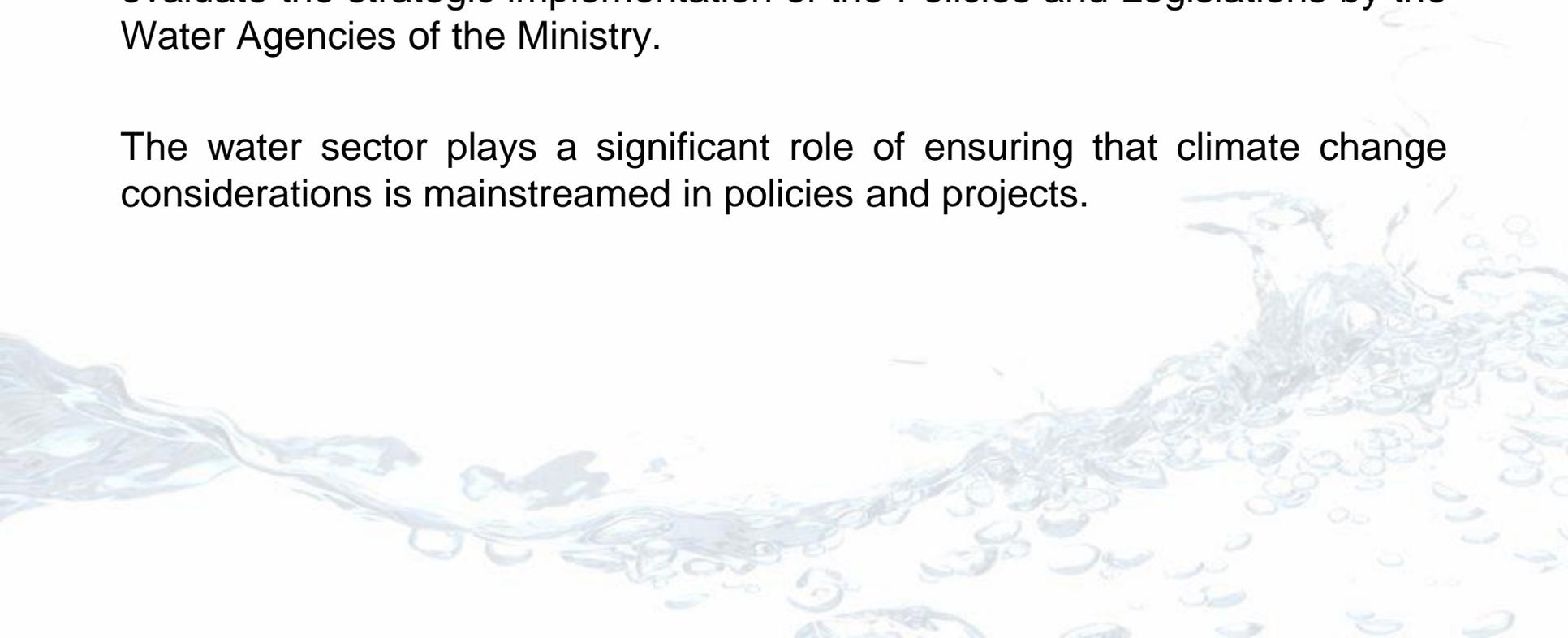
Ministry Responsible for Climate Change



THE WATER POLICY AND MONITORING DIVISION

The Water Policy and Monitoring Division of the Ministry of Economic Growth and Job Creation is responsible for the formulation of Policies and Legislation to guide the Water Sector and also to develop, lead, monitor and evaluate the strategic implementation of the Policies and Legislations by the Water Agencies of the Ministry.

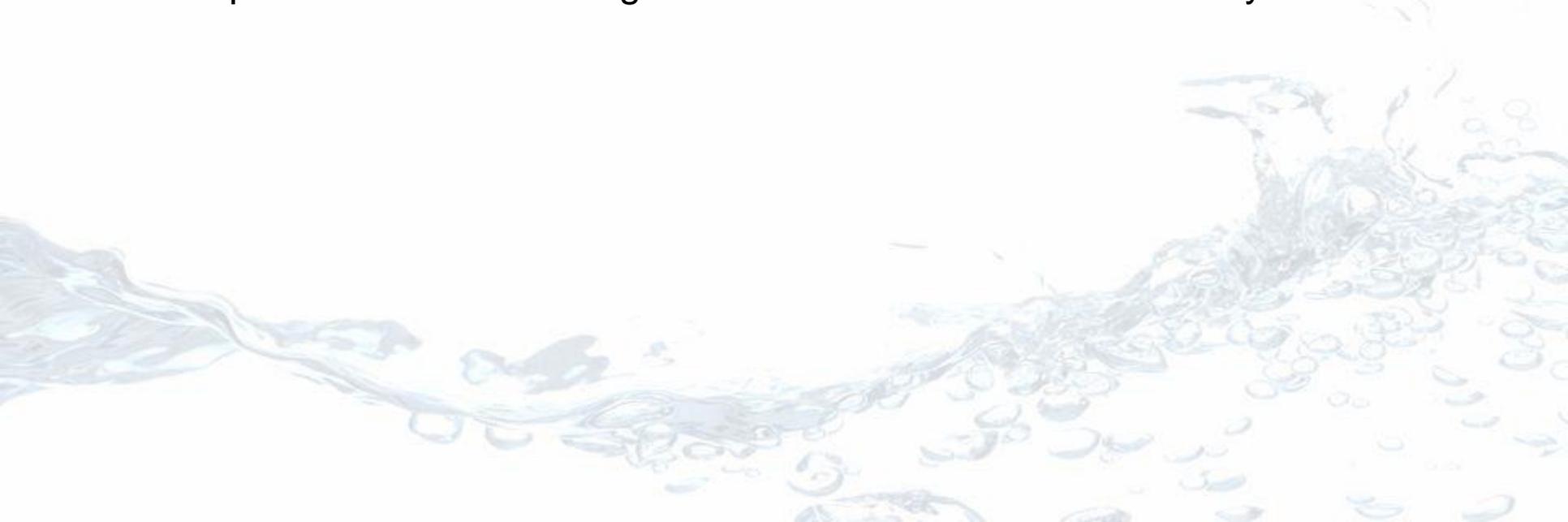
The water sector plays a significant role of ensuring that climate change considerations is mainstreamed in policies and projects.



Adaptation Strategies in the Water Sector

Draft National Water Sector Policy and Implementation Plan 2017

- In 2000, the first Water Sector Policy Strategies and Action Plan was promulgated.
- The new Policy provides an update of the 2004 Water Sector Policy. The revised Policy will reflect the government's commitment to Integrated Water Resource Management (IWRM) as well as to guide the sector's adaptation to climate change and resilience to climate variability.



ADAPTATION IN THE WATER SECTOR

Agency Role



NATIONAL WATER COMMISSION (NWC)

The National Water Commission (NWC) is the main provider of potable water and sewerage services island-wide.

Main Projects

The NWC has initiatives underway to restore the quality of groundwater and to improve efficiency.

- Water Resources Study (Rio Cobre and North Coast Study): To plan for the allocation of water. It involves:
 - ✓ A hydrogeological and water-resource investigation and assessment of the impact, if any, of the proposed abstraction from the Rio Cobre River/Basin by the National Water Commission (NWC).
 - ✓ Determining the state of the basin for future planning.
- Artificial Aquifer Recharge Project. Funded by the NWC through a loan from the IDB. Project geared to reduce the impacts of saline intrusion and over-abstraction of the groundwater aquifer
- Technical Cooperation with International Atomic Energy Agency (IAEA) – Stable Isotope Study. To determine the signature or DNA of the water.....The age, route of water, potential contamination, rate of flow, nitrates and chloride levels etc.

ADAPTATION IN THE WATER SECTOR

Agency Role



WATER RESOURCES AUTHORITY (WRA)

The Water Resources Authority (WRA) are the regulators and is responsible for the management, protection, allocation and use of Jamaica's water resources. The major activities of the Water Resources Authority (WRA) include hydrologic data collection, compilation, and analysis; water resources investigation, assessment, and planning; water resources allocation; and environmental monitoring and impact assessment.

Projects

Water Resources Development and Management Planning (WRDMP) Project – Undertaken by UWI Climate Group.

This involves a water resources assessment to determine the sources quantity, reliability and quality of water resources. This forms the basis for further evaluation of the possibilities for their utilization and control. In carrying out the assessment, the country is divided into 26 Watershed Management Units (WMUs). For each WMU, data is collected for each WMU: average rainfall, evapotranspiration loss, annual surface runoff.

The data also includes scenarios of future rainfall and temperature for each WMU. The water resource demand has been determined for each sector- domestic, agriculture, industry and tourism.

ADAPTATION IN THE WATER SECTOR

Agency Role



National Irrigation Commission (NIC)

NIC provides irrigation services primarily to the agricultural sector as well as to some industrial and commercial users through some of its systems. It's main objectives are to manage, operate, maintain and expand existing and future irrigation schemes and systems, as may be established by the Government of Jamaica.

Adaptation strategies include:

- The application of increased irrigation through efficiency,
- The reintroduction of water harvesting, and drought resistant crop modification.
- The reuse /recycling of treated sewage effluent to meet irrigation and environmental demand.

Some adaptation strategies directed at crop production efficiency include:

- Investigation of important pests and plant diseases, including weeds, to climatic changes.
- Investigation of genetic diversity within crop types that might be better suited and called upon to compensate for climatic variability.
- Engagement of main stakeholders in areas such as plant breeding, agrochemicals and fertilizers, irrigation and agricultural equipment etc. on the implications of climate change

Adaptation Strategies in the Water Sector

Other Water Agencies

RURAL WATER SUPPLY LTD.

Rural Water Supply Ltd. is a government owned engineering company which is primarily involved in the designing, planning and implementation of potable water infrastructures to improve access to potable water supply to the rural population by a variety of supply modalities at an affordable cost.

Rural Water Supply Ltd. (RWSL) pays particular attention to energy efficiency so as to reduce dependency on fossil fuel based electricity.

RWSL is involved in NWCs Tank and Pump for Energy Efficiency Programme which focuses on energy efficiency in water islandwide. In addition the use of renewable/solar energy is employed wherever feasible for implementation of minor water supply systems and rainwater harvesting systems islandwide.

RAPID RESPONSE UNIT

The Rapid Response Programme (RRP) was developed in 1999, and is responsible, for the delivery of potable water via the trucking of water, to communities across the island in times of severe drought, emergencies, and water shortages due to location.

Adaptation Strategies in the Water Sector

Publication available online with additional action plans:

Development of a National Water Sector Adaptation Strategy to address Climate Change in Jamaica.

