Mini Action Plan Submitted by Barbados

ACTION 1: GROUNDWATER MONITORING PROGRAMME EXTENSION AND AUTOMATION

Establish an early warning system to protect public water supply wells from pollution sources. This will involve the installation of monitoring boreholes and include telemetry for real time monitoring of physicochemical and selected pollution indicators.

STRATEGIC OBJECTIVE

To establish an enhanced monitoring system within five years to track the impact of land use changes on groundwater aquifers, with real-time monitoring of critical water quality indicators for human health and environmental safety.

RATIONALE

Growing land development and wastewater disposal are increasing pollution risks, particularly transferring pollutants from coastal to inland groundwater. Current delays in test results hinder timely responses. Installing boreholes and telemetry equipment will enable early detection and response using real-time monitoring of REDOX, DO, pH, temperature, and other pollution indicators.

KEY DETAILS

Leading Entity	BWA/EPD
Key Coordinators/Collaborators	BWA EPD MET, Agriculture, CIMH
Geographical Scale	National
Estimated Cost	USD 3 Million – includes boreholes, telemetry, equipment, training, IT
Potential Sources of Financing	GOB, GCF, GEF, DCFO
Timeline	4 Years
IWRM Dimension	Institutions and Participation and Management Instrument
Related SDG Target	SDG 1 (No Poverty), 2 (Zero Hunger), 6 (Clean Water), 12 (Responsible Consumption), 14 (Life Below Water)

ACTION 2: DEVELOPMENT OF WASTEWATER REUSE REGULATIONS

Support the implementation of the Water Reuse Act 2023 through the development and implementation of Regulations. Specific standard for agriculture, urban, groundwater recharge, and domestic use.

STRATEGIC OBJECTIVE

To work with stakeholders and provide national-level clarity within **three years** on treated wastewater use regulations.

RATIONALE

Treated wastewater is currently used without standardized guidelines across sectors like **agriculture, urban use, groundwater recharge**, and **domestic use**. The lack of regulation leads to risk and inconsistency. Regulations will improve safety, investment readiness, and set national standards for all reuse pathways.

KEY DETAILS

Leading Entity	Ministry of Health and Wellness
Key Coordinators/Collaborators	EPD, BNSI, BWA
Geographical Scale	National
Estimated Cost	USD 200,000 – includes assessments, stakeholder consultations, and drafting
Potential Sources of Financing	Government, GCF, GEF
Timeline	1 year
IWRM Dimension	Enabling Environment
Related SDG Target	SDG 1, 2, 6, 12, 14

CONTRIBUTORS

Anthony Headley- Director -Environmental Protection Department

Alex Ifill- Manager, Water Resources-Manager Water Resources & Environmental Management Unit Barbados Water Authority (BWA)