Water Information Management System (WIMS) and its benefits to NRW Project Development

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Trinidad & Tobago Water Sector and Water Resources



Aerial view of flooding in Trinidad after torrential rains from October 18-22, 2018. – Loop T&T News



Leak Repair- WASA



View of Port of Spain – www.gov.tt



River Discharge Measurement using a river surveyor – Water Resource Agency

Fragmented Data and Information for the Water Sector in Trinidad and Tobago



Solution to a Problem

Water Information Management System??

- 1. Funding Agency GEF CReW+
- Consulting Agency United Nations University Institute for Water, Environment and Health
- 3. Project Coordinating Agency Ministry of Public Utilities and Water Resources Agency, WASA

WIMS Scope of Works

- The WIMS system should be built as strategized in the Draft National Integrated Water Resources Management Policy (2018) as well as the CReW+ Project National Package for T&T and must be able to store the standardized water-related data and information provided by all stakeholders
- Regarding the data management, the Draft National Integrated Water Resources Management Policy (2018) states that:
 - "6.9.2 The Government will establish a standardised, integrated electronic water resources information management system for the collection, processing, storage, analysis and retrieval of information to inform the decision-making process. The system will provide continual permanent monitoring of meteorological, hydrological, and hydrogeological parameters, combined with associated spatial and environmental data.
 - 6.9.3 The system will incorporate hydrological, meteorological, hydrogeological, geographical, environmental, social, and economic information and will form the basis for planning and decision-making. It will be capable of integrating with the National Land Information/Geographic Information System (National LIS/GIS. Wherever practicable, Governmental will involve the private sector, the tertiary educational institutions and the general public in the collection and processing of information.

Objectives of WIMS

 Overall, this project aims to develop a Water Information Management System (WIMS) for water related data and information that incorporates existing databases and other water sector stakeholders, to inform national decision-making

To create a national platform (open data portal) with a web-based front-end, that would facilitate and promote the access to, and dissemination of water related data and information (both current and historical) in a realtime fashion via Application Programming Interfaces (APIs) and other end point





To develop a basic Data **Governance Framework** that can be adopted by the collaborators of the WIMS. This framework should include processes, roles, policies, standards, and metrics that can be used to ensure the quality and security of the data within the WIMS, as well as the effective, efficient, and ethical use of the information to enable the water sector stakeholders to achieve their goals

Benefits of WIMS

Scientific decisionmaking tool



Easier access to a range of data and information



Encourage the collection of all Water Sector related data



Encourage the processing, validation and archiving of data



Track changes and progress in a variety of areas



Targeted project development



Increase efficiency in operations



Encourage research and development



Climate proof the Water Sector

Progress of WIMS



Targeted to be completed at the end of 2023





Targeted to be fully functional by mid 2024 and integrated use by Stakeholders



Venture into subsequent projects influenced by WIMS including improving water related data collection