



amaica is the largest island of the English speaking Caribbean with an area of 10,990 km2. The country is divided into 14 administrative districts called Parishes, with a total estimated population of 2,698,800 persons (GOJ, 2009), of which almost 46% are rural. The main urban centres are Kingston, Saint Andrew and Saint Catherine. Jamaica is credited among the first set of countries in the western hemisphere to have had piped water supply systems since the mid 1700s. The availability of water resources in Jamaica is typical of many islands in the region where there is sufficient water to meet overall demand, however the resources are distributed unevenly in both time and location. This results in the inability to adequately meet the localised demand efficiently. Although the water resource is available in total, there is a need to further develop abstraction points in various locations and to go through a production process of treatment and distribution of this water to adequately meet the demands of various sectors.

The National Water Commission (NWC) is a key stakeholder in the water sector process having been formed in 1980 to replace the Water Commission (previously established to provide water supply and sanitation services for the Kingston and St. Andrew Area - KSA) and the National Water Authority (previously established to provide water supply and sanitation services for the rural parishes). The NWC's mandate is to provide potable-water and sewerage services to communities island-wide. However, there are some minor water supply facilities that are managed by Parish Councils.

NWC was at the core of the water sector reform process, as it is the statutory body responsible for providing most of the potable water and wastewater services for the country. The NWC produces in excess of 90% of Jamaica's total potable water supply from a network of more than 160 underground wells, over 116 river sources (via water treatment plants) and 147 springs [NWC, 2010]. The rest of the water supply services are provided by the Parish Councils and a small number of private water companies, servicing private residential developments; and the National Irrigation Commission provides irrigation services. The NWC operates and maintains over 4,000 kilometres of pipelines and more than 500 kilometres of sewer mains island-wide. The NWC supplies approximately 190 million gallons of potable water daily to consumers island-wide from river, spring and groundwater sources.

# **Water and Wastewater Management**

Key Issues prior to the Water Sector Reform in 1998

Prior to the Water Sector Reform, the country had been experiencing changes in the regulatory environment for other utilities such as electricity and telecommunications, which had resulted in the establishment of the Office of Utilities Regulation (OUR). This resulted in the regulator taking on the responsibility of water supply and sewerage services as well. This forced the existing service providers to come under the regulatory authority of OUR. As a result, there was a need to reform the NWC in an effort to improve its operation and general delivery of water supply and sewerage services in the country. The Water Sector Reform Process was initiated by the Government of Jamaica in 1998. Prior to that there was an increased recognition of the issues and problems in the water sector, which posed a serious threat to the health of the nation and required a significant level of finance to effectively resolve.

The major challenges faced by the National Water Commission (NWC) from its establishment in 1980 up to 1997, resulted in: public loss of confidence in the utility, industrial action by workers, as well as negative publicity. As a result the following were key issues to be dealt with by the NWC and Government [NWC, Hunter, 2007]:

# A. Financing of the NWC operations, maintenance and investment through water charges and government grant:

- Infrequent and Inadequate Tariff Adjustment.
- Poor Condition of Water Supply and Sewerage Infrastructure due to inadequate maintenance.

### B. Regulation with respect to water quality:

- Limited environmental regulation.
- Level of service: self regulated there was not direct external oversight to ensure adequate operations of the NWC. The NWC essentially regulated itself ensuring as much as possible satisfactory water quality and provision of service.
- Water resource use: self regulated.

# C. NWC's development over the 17 year period from 1980-97 was fraught with many challenges:

- Slow transformation from government department to a business type operation.
- High staff ratios (i.e. number of staff in relation to the number of connections) with over 5000 members of staff in 1980.
- Limited use of technology and specialised equipment.
- Poor customer service with slow response to customer queries and time to address technical issues.



#### The Water Sector Reform resulted in the following initiatives:

- Establishment of the Ministry of Water to focus on the Water Sector.
- Preparation of the Water Sector Policy (2002).
- Development of the Water Sector Strategy and Action Plan (2004).
- Reform of the Legal and Regulatory environment to facilitate the operation of the NWC. Subsequent establishment of a regulatory framework.

#### **Regulatory Environment**

In an effort to oversee and guide the reform and operation of the sector, a regulatory environment was established strengthening the functions of the following institutions:

- Office of Utilities Regulation (OUR) responsible for tariff setting and service standards.
- Water Resources Authority (WRA) responsible for water abstraction licensing and monitoring.
- Ministry of Health (MOH) responsible for monitoring water quality.
- National Environment and Planning Agency (NEPA) responsible for environmental management.
- Bureau of Standards Jamaica (BSJ) responsible for monitoring the accuracy of meters through inspection and testing and also the monitoring of the quality of materials used in the provision of services.

#### **NWC - Reform Initiatives**

This Water Reform process resulted in a transformation of the operations of the NWC with actions taken:

- To address inadequate service delivery and financial viability.
- To focus on policy development.
- To improve customer service with the expansion of services to peri–urban and rural communities.
- To focus on a private sector business mode in an effort to increase financial viability.

### This focus on the water utility resulted in a number of key actions being taken to achieve:

#### 1. Improved Customer Service:

- Concept of service being derived at Home i.e. receive adequate supply pressure, receive bill at home, make gueries from home. The objective is to reduce office visits.
- Improved service delivery and reliability of the service e.g provide good supply pressure.
- Improved billing service, query system.
- Reduced office visits.
- Strengthening of quality of interface with customers: Customer Service Training, introduction of a call centre with a toll free number, increased payment options (internet, telephone, malls, supermarkets).



### 2. Improvement in Operations:

- a. Rehabilitation of facilities to increase efficiency and reliability:
  - Treatment Plant.
  - Pumping equipment including pump replacement programme.
  - Infrastructural upgrades of US\$30M.
- b. Meterisation: increased level of metering from 30% to approximately 70% over 8 years.

### 3. Improved Public Image:

- Improve community relations (participate in community meetings, school activities).
- Media advertisements

# The NWC has risen to the challenges and between the period 2003-2007 there has been an intensified effort to improve operations with respect to:

- Service Delivery.
- Financial Viability.
- Compliance with regulatory requirements (especially with respect to sewerage services).
- Expansion of services to facilitate national development.

# The company also sought to develop a three (3) year action plan which aimed to achieve the following:

- Transformation of the NWC to a viable financially stable entity able to meet operating costs and fund investment.
- Improvement in the quality of service to customers and expansion of the customer base.
- Improvement of relationship with the trade unions in an effort to foster a more stable industrial climate.

#### In that regard, the following initiatives were pursued:

Increase the level of management of service providers vis a vis services, e.g.:

- Operation of Call Centres.
- Water Supply Infrastructure Installations.
- Wastewater Service Infrastructure Installations.
- Network improvement to facilitate non revenue water reduction.
- Financing of Capital Projects.



## The following acted as catalysts for the Water Sector Reform in 1998:

- 1. Inadequate water supply and sewerage infrastructure to allow for a satisfactory level of service.
- 2. Lack of cost recovery by the NWC and inadequate finance to facilitate capital investments. This forced the Government to intervene through grants and guarantee of external loans.
- Despite the important initiatives taken there was not a significant focus on attracting external financing through the private sector through the initiation of a private sector participation transaction with the NWC. As such despite all the advances to ensure a suitable institutional and regulatory framework, the NWC has not achieved the level of change expected. There is a need now to fuel the change that has begun with the requisite financing and additional technical support to achieve a much greater impact on the provision of water supply and sewerage services.
- The NWC is a statutory body which continues to be directly accountable to government and as such subjected to the direct influence of government. In an effort to truly reform the NWC there is a need to make the NWC truly independent. It is recommended that the NWC be incorporated as a private company and be governed by good business practices. Through the development of a true Private Sector Participation where the private sector is able to own shares in the NWC there are opportunities for improved management of the utility as a private company. As well, this initiative would relieve government of the financial burden that it continues to carry despite the reform initiatives undertaken. There is a need to review the legislation governing the NWC. This initiative however is ongoing as a draft Water and Sewerage Act which connects to the mandate of the water policy is under review.
- The regulator OUR has been operating quite satisfactorily over the years as it relates to tariff review and also setting of service standards. This is in a major part due to the fact that it is a multi-utility regulator i.e. responsible for electricity, telecommunications, transportation, water and sewerage and has been driven by the electricity and telecommunications sectors. The WRA as well has been operating satisfactorily as it relates to the management of the water resources.
- It is clear that although all the elements of reform are known and have been initiated in some form they have happened at varying timelines not necessarily in an effective manner resulting in reduced progress in the sector. There is a need to improve the overall co-ordination of activities and to ensure the harmonisation of policies, legislation and institutions.

The NWC continues to pursue options to ensure their financial viability as well as the excellent delivery of water supply and sewerage services for Jamaica. The Government recognises that adequate provision of water supply and sewerage services is a catalyst for economic development and intends to ensure that all citizens have access to water by 2010 and sewerage services by 2020.



Published by the Global Water Partnership – Caribbean (GWP-C) © 2011 Copies of the full case study are available from the GWP-C Secretariat:

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