



OFFICE OF UTILITIES REGULATION

Joins in Observing

World Water Day

Theme: Water and Sustainable Development



March 22, 2015

A virtual presentation by the OUR Information Centre in celebration of World Water Day

What is Sustainable Development?



Sustainable development was popularised and contextualised by the Brundtland Commission which defined it as:

“development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

The Brundtland Commission focused on three pillars of human well being:

- * **Economic**
- * **Socio-political**
- * **Ecological/environmental conditions**

The basic concept endorsed putting in place strong measures to spur economic and social development, particularly for people in developing countries, while ensuring that environmental integrity is sustained for future generations.



How does Water Affect Sustainable Development?

- Water is at the core of sustainable development and is critical for socio-economic development, healthy ecosystems and for human survival itself.
- It is vital for reducing the global burden of disease and improving the health, welfare and productivity of populations.



- Water is central to the production and preservation of a host of benefits and services for people.
- It is also at the heart of adaptation to climate change, serving as the crucial link between the climate system, human society and the environment.
- More than 1.7 billion people in the world live in river basins where depletion through use exceeds natural recharge, a trend that will see two-thirds of the world's population living in water-stressed countries by 2025.



Water Issues in Jamaica

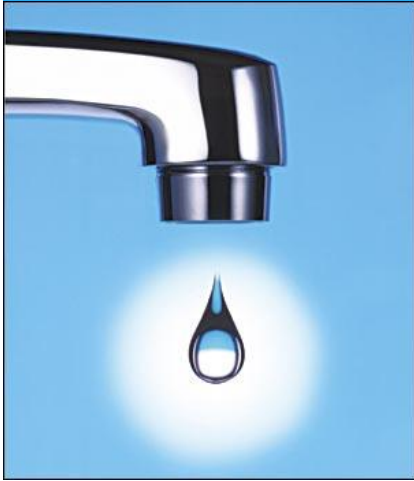


Water is critical to the life, health and economic well-being of any nation and has real value as a commodity. Inadequate supplies can and do have adverse social and economic consequences.

Issues that are prevalent in Jamaica include:

- Deterioration and malfunction of the municipal supply and sewerage treatment infrastructure
- Management of industrial and toxic waste and its effects on water resources
- Rapidly increasing demand in water deficient areas
- Adverse effects of deforestation

Jamaica's Progress in Providing Water Services



Jamaica has made significant progress in providing water services for its people. As reported in the Jamaica Survey of Living Conditions 2010:

- 70.3% of Jamaican households had pipe/tap water (indoor and outdoor) in 2010 as their main source of drinking water, 2.2% below the reported 72.5 % for 2009, but a 3.7% increase from 2000.

- In 2010, the percentage of households relying on water from rivers, lake, springs and or ponds increased from 3.2% (which was also the figure in 2000) to 3.4%. This was attributed to an increasing proportion of rural households relying on untreated source as their main supply of drinking water.
- The use of rainwater (tank) increased between 2009 and 2010 by 2.2% from 13.7% to 15.9%. This represented a 4.2% increase from the 2000 percent figure of 11.7%.

Water and Sustainable Development in Jamaica – Role of the OUR



The **Office of Utilities Regulation (OUR)** was established by an Act of Parliament in 1995 and regulates, among other utility services, water and sanitation service provision. The Office approves tariffs, sets targets for efficiency improvements, processes all license applications for utility services and makes recommendations to the Minister.

Activities related to the water industry were focused on continued access to safe and adequate water supply and improvement in efficiency and delivery.

Water and Sustainable Development in Jamaica – Role of the WRA

- * The **Water Resources Authority (WRA)** is responsible for the management, protection, controlled allocation and utilisation of the water resources of Jamaica.
- * The **Water Resources Act of 1995** gives the WRA the responsibility for planning the orderly development and equitable allocation of water resources, including the analysis of alternative methods of developing and supplying water.



Jamaica's Efforts in Ensuring Sustainable Development



The Water Resources Authority is in the process of updating its 2004 Jamaica Water Sector Policy.

The guiding purpose of this policy for the water sector is to ensure that Jamaica's water resources are used and protected so as to provide for our nation's social, economic, and environmental well-being, now and in the future.

- * The updated Jamaica Water Sector Policy is intended to address identified gaps and assist with meeting the goals of Vision 2030 which are:

“integrated and sustainable water resources management and development; adequate and safe water supply and sanitation to support the social and economic development of Jamaica.”



- * The Water Resources Authority is also in the process of developing a Rural Water Supply Development Strategy
- * Both the Policy and the Development Strategy form a part of an initiative under the Kingston Metropolitan Area Water Supply Improvement Project.

Objectives of the Metropolitan Area Water Supply Improvement Project.

- * Funding for the project was provided through a Technical Cooperation Grant which is expected to facilitate the:
 - * Development of the updated policy aimed at expanding coverage of safe, potable drinking water

- * Identification of areas without access to potable water and the development of methodology to determine the most effective least-cost modality of supplying water to the affected communities
- * Development of a framework to address the impact of climate change on water resource facilities and supplies
- * Development of a framework to address the cost of Social Water

- * Establishment of a framework to expand coverage of wastewater and sewerage services
- * Development of more reliable statistics on the water sector
- * Identification of an improved environment to encourage more private sector participation

Water and Sustainable Development in Jamaica – Role of the NWC



Water is life

The **National Water Commission (NWC)** is the major supplier of water across Jamaica, producing more than 90% of Jamaica's potable water supplied through house connections, stand pipes, water trucks and wayside tanks.



Water is life

As part of its five –year capital programme, and consistent with Vision 2030 Jamaica and Government’s policy objective, aimed at making potable water available to all Jamaicans, the NWC pursued several projects during 2013:

Projects Pursued by the NWC in 2013

WATER PROJECTS, 2013

PROJECTS	OBJECTIVES/DESCRIPTION	POPULATION TO BENEFIT/IMPACTED	STATUS
Comfort Hall/Cooperwood/Richmond Hill Water Supply, Sta. James	Major components involved source improvements, pumps, storage facilities and transmission and distribution pipelines.	Approximately 4000	Completed
Wharf Lane Water Supply and Orange Bay Intake Upgrade, Portland	For intake upgrade, pipeline installation, pumping facilities and storage tank.	Approximately 1500	Completed
Mile Gully/Warwick Castle Water Supply, St. Mary	To upgrade, provide chlorination facilities, pumps including solar pump, pipeline installation and, storage tanks.		Completed
KMA Water Supply Project JICA: Lot 2B	To improve standards and meet the increased water demand in South East St. Catherine and Greater Spanish Town. The project involves the rehabilitation of the water supply facilities, including pipeline replacement, refurbishing of water treatment plants and pumping equipment; water resources development and an institutional development programme	180000 will be impacted	Construction of 10km of transmission pipelines from Caymanas Estates to Marley Hill to increase the supply capability along with 3km of distribution reinforcement mains to improve service to communities in Portmore, Greater Portmore and Hellshire.

WATER PROJECTS, 2013

PROJECTS	OBJECTIVES/DESCRIPTION	POPULATION TO BENEFIT/IMPACTED	STATUS
Kingston Water and Sanitation Project – Rehabilitation of the Mona and Hope Water Treatment Plants	To restore the reliable production output to 16 and 6imperial million gallons/day (imgd) to Mona and Hope Water Treatment Plants, respectively.	Approximately 293000 to be impacted in the south eastern quadrant of the Kingston & St. Andrew Metropolitan area	Completed
Christiana/Spauldings Water Supply Christiana-Sedburge Pipeline	Construction of 2.0 km of 250 m diameter pipes from the Christiana Town Centre to the Sedburgh Storage Tanks	25000	Completed

However, the following factors outweighed benefits gained from these projects:

- Drought conditions
- High levels of turbidity forcing shut down of plants
- High levels of leakage

OUR, NWC and the Business of Water



In 2013, the OUR approved the continuation of the K-Factor Fund, with the provision for improved monitoring and reporting.

The initial approval granted in 2008 ensured that a proportion of revenue collected from customers go directly to infrastructure improvement.

As at July 31, 2013, projects approved amounted to 100 with an estimated cost of \$31.0 billion approved by the OUR for funding under the K-Factor Programme.

Did You Know NWC Provides the Best Tasting Water in the Region?



Water is life

A panel of experts at the 22nd Annual Caribbean Water and Wastewater Association (CWWA) Conference declared that NWC provides the best tasting drinking water in the Caribbean. The NWC earned the award for the second year in a row, beating out eight other water service providers from across the region.

Water and Sustainable Development in Jamaica - Outlook

- Growth is anticipated for the Water Supply industry which should emanate from expected increases in water production.
- The Water supply industry should be positively impacted by the continued implementation of several water projects across the island, ensuring sustainable development.



Water and Sustainable Development

On the International Front



Sustainable Development, Water and



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Agriculture

By far the thirstiest consumer of water globally, accounting for 70% of water withdrawals worldwide, although this figure varies considerably across countries. Rain-fed agriculture is the predominant agricultural production system around the world, and its current productivity is, on average, little more than half the potential obtainable under optimal agricultural management. By 2050, world agriculture will need to produce 60% more food globally, and 100% more in developing countries.

Sustainable Development, Water and



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Industry and energy

Together, these account for 20% of water demand. More-developed countries have a much larger proportion of freshwater withdrawals for industry than less-developed countries, where agriculture dominates. Balancing the requirements of sustainability against the conventional view of industrial mass production creates a number of conundrums for industry. One of the biggest is globalization and how to spread the benefits of industrialization worldwide and without unsustainable impacts on water and other natural resources.

Sustainable Development, Water and



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Domestic sector

Accounts for 10% of total water use. And yet, worldwide, an estimated 748 million people remain without access to an improved source of water and 2.5 billion remain without access to improved sanitation.

Sustainable Development, Water and



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Cities

More than half the world already lives in urban areas and by 2050, it is expected that more than two-thirds of the global population will be living in cities. Furthermore, most of this growth will happen in developing countries, which have limited capacity to deal with this rapid change, and the growth will also lead to increase in the number of people living in slums, which often have very poor living conditions, including inadequate water and sanitation facilities. Therefore, the development of water resources for economic growth, social equity and environmental sustainability will be closely linked with the sustainable development of cities.

Sustainable Development, Water and



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Ecosystems

Perhaps the most important challenge to sustainable development to have arisen in the last decade is the unfolding global ecological crisis that is becoming a barrier to further human development. From an ecological perspective, the sustainable development efforts have not been successful. Global environmental degradation has reached a critical level with major ecosystems approaching thresholds that could trigger massive collapse. The growing understanding of global planetary boundaries, which must be respected to protect Earth's life support systems, needs to be the very basis of the future sustainable development framework.

Water can pose a serious challenge to sustainable development. However, managed efficiently and equitably, water can play a key enabling role in strengthening the resilience of social, economic and environmental systems in light of rapid and unpredictable changes.



Quotes

"A river is more than an amenity, it is a treasure."

Justice Oliver Wendell Holmes

"Water is critical for sustainable development, including environmental integrity and the alleviation of poverty and hunger, and is indispensable for human health and well-being."

United Nations

"We have the ability to provide clean water for every man, woman and child on the Earth. What has been lacking is the collective will to accomplish this. What are we waiting for? This is the commitment we need to make to the world, now."

Jean-Michel Cousteau

“The crisis of our diminishing water resources is just as severe (if less obviously immediate) as any wartime crisis we have ever faced. Our survival is just as much at stake as it was at the time of Pearl Harbor, or the Argonne, or Gettysburg, or Saratoga.”

Jim Wright, U.S. Representative, The Coming Water Famine, 1966

"Clean water, the essence of life and a birthright for everyone, must become available to all people now."

Jean-Michel Cousteau

"Globalization was supposed to break down barriers between continents and bring all peoples together. But what kind of globalization do we have with over one billion people on the planet not having safe water to drink?"

Mikhail Gorbachev



THANK YOU FOR VIEWING

This Presentation was Compiled by the
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