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The post-2015 development agenda

Trinidad & Tobago stakeholder perspectives on a water goal and its implementation

Global Water Partnership

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1 Background

At the United Nations (UN) Conference on Sustainable Development in June 2012 (Rio+20) water was one of 11 themes included in an intergovernmental process on Sustainable Development Goals to follow on from the Millennium Development Goals. Subsequently, UNWater and its partner, the Global Water Partnership (GWP), developed and approved a post 2015 Global Goal for Water "Securing Water for All" (January, 2014).

Trinidad and Tobago was one of twenty-six (26) countries chosen to host a national consultation on water, the outcomes of which will form the Agenda for Water Post 2015.

2 Purpose

Five targets for post 2015 were developed as follows:

A. Achieve universal access to safe drinking water, sanitation and hygiene
B. Improve by an agreed percentage, the sustainable use and development of water resources in countries
C. All countries strengthen equitable, participatory and accountable water governance
D. Reduce untreated wastewater, nutrient pollution and increase Wastewater reuse by set percentages
E. Reduce mortality and economic loss from natural and human induced water related disasters by set percentages.

The Consultation had five breakout groups with each one assigned to one of these five targets. Each group was required to form realistic targets and measurable indicators for the post 2015 plan. Groups were asked to list actions in order to achieve their target statements, identify and measure indicators and determine the limitations and threats to the country's capacity to report, monitor and fund actions.

The feedback from the consultation will be used to help shape the UN post 2015 development goals.

2.1 Group A - Achieve Universal Access to Safe Drinking Water, Sanitation and Hygiene

2.1.1 Baseline Data:

- WASA serves > 90% of citizens with safe drinking water - 58% of persons receive a 24/7 supply of water
- 30% of homes have access to a sewerage system which either ties into WASA sewage treatment plant or a private sewage treatment plant.
- 58% of homes use septic tanks with soakaways as a method for sewage disposal.
- Open defecation is a minor issue
- A significant number of privately held sewage treatment plants are malfunctioning. WASA report on East West corridor will support this data.
- <10% of houses use pit latrines for sewage disposal - Solid waste collection varies based on location.

	Target Statements	Required actions	Indicators	Limitations/ Threats
1	Reduce unaccounted for water from source to consumer by 50%	1. Identify and repair leaks within 24 hours	- Response time - Number of leak reports	- Funding - Responsibility of citizens to report leaks/ illegal connections
		2. Replace pipeline with repeated leaks	- Length of pipes replaced	
		3. Regulation of illegal connections	- Conversion of consumer to customer	
2	Create guidelines for different modes of disposal of wastewater treatment methods (on/ot) by 100% compliance.	1. Educate household on water use efficiency	- Reduced consumption	- Lack of public acceptance
		2. Retrofitting homes to reduce water consumption & internal leakage	- Reduced consumption	
		3. Rainwater harvesting system	- Percentage of homes with rainwater harvesting facilities	
		4. Industrial recycling of water	- Reduced consumption	
		5. Public education for agriculture sector & tourism	- Reduced consumption	
3	Improve demand	1. Create and implement guidelines with	- 100% compliant	- Resources to police and
	management to consumers by 10%	enforced legislation		check for compliance
4	Revise water and wastewater tariffs and implement increment plan by at least 5% annually towards cost recovery.	1. Determine the cost of recovery		- Inability to recover full cost of treatment - Potential for discrimination/inequality - Unwillingness to pay - Encourage illegal connection/abstraction
		2. Plan to recover greater than 5% annually	- Percentage increase in income	
		3. Different rate based on consumption	- Percentage increase in income	
		4. Industrial rate	- Percentage increase in income	
5	Adoption of drinking water quality standards that incorporate contaminants of emerging concerns	1. Creation of ambient water quality standards	- 100% compliance	- Funding - Unable to treat water to new standards based on high cost - Regulation of raw water as it relates to ambient water quality guidelines.
		2. Development of capacity & facilities with the capability to test for parameters	- 100% implementation	
6	Improve solid waste management policy & strategy (hazardous waste, large items &	1. Implementation of hazardous waste management	- 100% compliance	- Funding - Responsibility of all

	recycling, waste to energy, frequency of waste collection, landfill design, eliminate landfill waste by 90%.	policy/conform to guidelines		
		2. Creation of facilities for hazardous waste	- No hazardous waste dumped	
		3. Categorization of waste & separation at source	- Different waste streams	
		4. Installation of waste to energy facilities	- More than 1 plant	
		5. Increase frequency of solid waste collection including large items	- 3 or more times a week	
		6. Construction of landfill with appropriate containment & efficient capture	- More than 1 plant	

2.1.2 Discussion:

The question was raised about the accuracy of the data and need for having persons trained to collect data. It was suggested that universities could play a role in providing the training and providing the necessary research to collect accurate baseline data.

2.2 Group B - Improve by an agreed percentage, the sustainable use and development of water resources in countries

2.2.1 Baseline Data:

Area	Current context / issues
Supply	• Groundwater aquifer tapped out and needs to be recharged • Industrial usage is exceeding supply. • Cost is not properly valued.
Development/ management	Distribution system: • Infrastructure is inadequate – both pipes and pumps • leakage and wastage in the system is at 50%
Use	• Need to increase efficiency of use – • Areas of usage not classified e.g. potable, agricultural, industrial, recreational (with different standards) • Appropriate pricing and metering

Targets	Address areas	Actions required	Indicators	Issue / country capacity to report
% decentralisation of surface capture	Supply Development/ management	- Promote and expand rainwater harvesting (1) for rural areas (2) for urban areas to supplement public potable supply - Promote and expand use - of irrigation ponds to - support agriculture - Promote and expand use of desalinization, reverse osmosis and other technologies as appropriate - Increase wastewater reuse - by classification for industrial and agricultural use	- Number of rural and urban households serviced through rainwater harvesting systems - Acreage of agriculture land supported by irrigation ponds - Volume of water produced by desalinization, reverse osmosis and other technologies - Ratio of wastewater produced to what is reused	- Need to assess economic feasibility and environmental sustainability of rainwater harvesting, ponds, desalinisation, reverse osmosis, reuse and other technologies to select appropriate strategy - Country has existing capacity to monitor and report
% reduction of industrial demand from the potable water supply and groundwater	Development/ management Use	- Use metering and tariff system to facilitate payment for full economic cost (supply, treatment, distribution) - Develop or promote use of alternative water sources for industry (including reuse of waste water)	- % reduction of volume of groundwater extracted for industries - % increase of volume of water reused by industries	- Industries are already metered. - Economic studies needed to develop appropriate pricing scheme.
% reduction in potable water use per capita	Development/ management Use	- Promote and expand rainwater harvesting (1) for rural areas (2) for urban areas to supplement public potable supply - Expand metering for households	- Number of rural and urban households serviced through rainwater harvesting systems - % of households that are metered.	- Need to ensure that meters are effectively functioning and monitored.

		- Implement public awareness and incentives	- Number of households accessing incentive programmes	
% reduction in wastage through leakage	Development/ management	- Improve infrastructure.	- % reduction in loss of revenue water	- Challenge of funding replacement of old pipes and inconvenience due to disruption of service

2.2.2 Discussion:

The percentage targets suggested for this presentation were:

- 10 -15% for implementation and set up for the period 2015 -2020
- 40 – 60% for improvement and evaluation for the period 2020-2025
- 85% and higher for the period 2025-2030

It was noted that metering was important to facilitate charging all users the full economic costs and that government will always have the option to continue to subsidise vulnerable groups if needed.

2.3 Group C - All countries strengthen equitable, participatory and accountable water governance

2.3.1 Baseline Data:

- Current legislature:
  - Forestry Act
  - WASA Act
  - EMA Act
  - Waterworks and Water Conservation Act.
- WASA and WRA are currently one entity

	Target	Actions Required	Indicators	Limitations/Threats
1	A governance framework to ensure balance between sustainable management, water resource management and the environment.	1. Repeal current legislature: • Forestry Act • WASA Act • EMA Act • Waterworks and Water Conservation Act. 2. Replace acts with: • Water Resources Management Act • Water & Waste Water Industry Act • Watershed Management Act • Drainage Act • Environmental Act.	- A policy (to be updated every 5 yrs) on: - Drainage - Water resource management - Water supply issues - Sanitation - Watershed management - Agriculture - Water-related disaster management issues - Stakeholder involvement - Environmental policy or - An IWRM policy that - contains all the policies - above	- Expertise and Human resources - Political will - Lack of legislation, archaic legislation, enforcement - Lack of public awareness and knowledge - Competing interest for funds - Low value for water due to low water rates/tariffs.
		3. Cabinet appoints an IWRM committee	- formalization of coordination, communication, project development and implementation to avoid duplication - Information sharing e.g. creation of a national water resources database - Establishment of funding mechanisms - Committee composed of all relevant stakeholders.	
		4. Establish new legislation, regulations, standards and tariffs	Tariffs – potable, raw water abstraction, sanitation/effluent discharge	
		5. Institutional strengthening and capacity building by creating:		

		• Water Resources Management Authority • Drainage and Flood Authority • Watershed Authority • IWRN Committee • Consumer & Civil Society comprising water boards (at least 1 representative per sector on the board)	
2	Strengthen equitable participatory and accountable water governance	1. Public disclosure via online database/public notices	- Financial indicators - Sustainable development - Incidences - Meeting quality of standards
		2. Integration of water governance issues on school's curriculum (secondary & tertiary)	- X% of informed people by x year (based on baseline information)
		3. Capacity Building	- Introduction/enhancement - of training - Tertiary education programmes to produce experts in the field - No of expert (professional & technical) by x year

2.4 Group D - Reduce untreated wastewater, nutrient pollution and increase Wastewater reuse by set percentages

2.4.1 Baseline data:

- 30% of population has a black water connection to a central sewage treatment.
- No measurement for grey water currently conducted.
- WASA has a five year plan that includes a new waste water treatment in Malabar, an upgrade of the San Fernando and an expansion of waste water systems to cover population where septic tanks and small package plants currently in use.
- Studies completed, indicated that 70 private plants should be converted to 6 major plants along the East West Corridor.
- Small plants do not have the capacity to cope with both black and grey water treatment and new plants should be designed to treat both.
- Current methods of treating waste are Extended Aeration Process and Trickle Filtrations System.
- All treatment plans in Trinidad are a secondary level and there are plans in the work to convert the Beetham and Maloney plants to Tertiary level.
- Runoff from Agriculture is not satisfactorily handled.
- Leachate from agricultural plots negatively impact water quality.
- Quarries are polluters.

2.4.2 Recommendations:

- Building of larger water treatment plants with the inclusion of grey water in all future developments.
- Retrofit current plants for the treatment of grey water.
- Wastewater plants should enhance treatment to tertiary level.
- Farm water management should be introduced to farms.
- On farms, a high nutrient/insecticide percentage in runoff should be captured, stored and reused.
- Improve enforcement of water treatment
- Education for persons in agriculture
- Novel ways found to reduce pesticides on farm
- Reuse of wastewater should be increased
- Public education on water reuse.

2.4.3 Indicators:

- 15 years to go from secondary to tertiary level treatment in wastewater.
- 30% reduction in nutrient pollution.
- EMA restrictions maintained.
- On-site effluent management at farms and other polluters.
- 50% increase in the use of recycled water.

2.4.4 Limitations:

- Funding,
- Maintenance of private sewerage treatment plants adopted,
- Trained persons,
- No ambient water quality information for individual rivers,
- Limited use of recycled water in the agricultural sector.

2.5 Group E - Reduce mortality and economic loss from natural and human induced water related disasters by set percentages.

	Target	Actions Required	Indicators	Limitations/Threats
1	Reduce surface water run-off to sustain critical ecological levels for each catchment	1. Increase reforestation efforts on the hillside of the northern range (state lands) 2. Build check dams and contour drains 3. Use Rain water harvesting for agriculture and domestic use 4. Increase government incentives for rainwater harvesting 5. Public education and outreach 6. Raining of targeted groups, capacity building 7. Create protected areas	- Key stakeholders - Data Collection	- Governance Structures - Finance - Evaluation and monitoring - Baseline data - Stakeholder engagement

2.5.1 Discussion

This group noted that greater enforcement of laws was required.

2.6 General Discussion

There were many issues that overlapped between the groups. The need for networking between organisations, the importance of information sharing and proper consultation was raised repeatedly.

Annex 1: List of Participants

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