

PARTNERSHIPS FOR WASTEWATER MANAGEMENT IN THE WIDER CARIBBEAN





Partnerships for Wastewater Management in the Wider Caribbean

Introduction

A range of organizations have been involved in the implementation of the first phase of CReW. The main “actors” in CReW have been the ministries with responsibility for water and wastewater and the water and wastewater (WW) utilities in the countries of the Wider Caribbean Region (WCR). Note that in most, if not all, countries, more than one ministry has some responsibility for water and sanitation. Activities have included the involvement of other government ministries and agencies, academia, the private sector and non-governmental organizations but there are opportunities to engage more fully with these partners.

The table below describes the range of partners which are already involved in wastewater management and those which could become more involved. The table presents the entities’ roles and responsibilities with respect to wastewater management and potential opportunities for engagement in the next phase of CReW – CReW 2. The column marked “S” are those partners that would be considered strategic for the Region.

Organization	Roles and Responsibilities	S* Opportunities for Engagement with CReW 2
Government ministries and agencies		
Ministries/agencies with responsibility for water and wastewater (usually with responsibility for environment and/or health)	Establish legislation and policies governing water and wastewater management, including effluent and water quality regulations. Monitoring and enforcement.	√ Continue to work with these key partners to strengthen the legislative, regulatory and institutional frameworks and to develop capacity for effective management of the WW sector, including monitoring and enforcement. Develop instruments to encourage better WW management.
Water/wastewater utilities ¹	Provide water supply and wastewater management services to urban and rural populations. Provide training and professional development.	√ Continue to work with these key partners to build capacity for effective management of the WW sector. Encourage investment in R&D
Other key ministries/agencies, e.g. with responsibility for:		
<ul style="list-style-type: none"> • Tourism 	Responsible for hotels and other tourist attractions that often provide their own WW treatment facilities.	Work toward ensuring that policies governing hotels and tourist attractions include requirements for adequate WW treatment and effluent standards. Similar standards can be incorporated into policies for community tourism – which will contribute also toward general community well-being. Reduce barriers to reuse.
<ul style="list-style-type: none"> • Agriculture 	Responsible for agriculture, forestry, fisheries. Agriculture is a major user of water and generator of	Raise awareness and skills related to farming practices that treat and reuse

¹ In some countries, the water/wastewater utilities are private or semi-private. Also, there may be separate entities charged with provision of rural water/wastewater services.

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<ul style="list-style-type: none"> Trade and Industry 	<p>non-point source water pollution.</p> <p>Responsible for entities that often generate significant wastewater which is usually managed on-site.</p>	<p>wastewater.</p> <p>Work toward ensuring that policies governing industry include requirements for adequate WW treatment and effluent standards.</p> <p>Encourage collaboration and investment in R&D, waste reduction and resource recovery.</p>
<ul style="list-style-type: none"> Community development 	<p>Responsible for urban and rural development (often oversees local government authorities – see below)</p>	<p>Raise awareness and skills related to practices that treat and reuse wastewater. Implement community-level WW treatment solutions.</p>
<ul style="list-style-type: none"> Education 	<p>Manages the operation of schools and the formal curriculum taught in schools.</p> <p>(See section on Academia and Research Institutions for roles of tertiary education institutions, which are often not under the purview of the Ministry of Education).</p>	<p>Investigate opportunities to further incorporate sanitation issues and links to health, environment etc. in formal curriculum.</p> <p>Include sanitation issues/projects in school-based initiatives e.g. Panama’s Healthy Schools Projects, Jamaica’s Schools Environment Programme</p>
<ul style="list-style-type: none"> Ministry of Foreign Affairs 	<p>Promotes regional interests in global issues</p>	<p>Engage in activities with foreign service officers to promote wastewater in the 2015 development agenda discussions at the UN as it relates to Caribbean small island developing states (SIDS).</p> <p>Engage with key decision makers to increase budget allocations for WW management and to consider tax</p>

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			<p>incentives for innovative WW management systems.</p> <p>Engage with private sector funding agencies and banks to look for ways to reduce cost of investment in WW treatment.</p>
<p>Local government authorities e.g. National Association of Village Councils – Belize, District Coordination Units – Panama, Social Cohesion Council – Guatemala</p>	<p>Establish local water supply and wastewater disposal systems. Maintain public sanitary conveniences.</p>		<p>Engage more fully with local authorities with respect to sanitation issues and provide information on access to funding for local groups and communities.</p>
<p>International, Regional and National Organizations and Networks that Focus on Water, Sanitation and Wastewater</p>			
<p>Caribbean Water and Wastewater Association (CWWA)</p>	<p>Promotes education and training in water supply, WW and solid waste disposal for water and WW professionals and general awareness raising among the general public. Promotes and shares research and development in supply, WW and solid waste disposal. Hosts annual CWWA conference.</p>	<p>√</p>	<p>Collaborate with these umbrella organizations to provide training and professional development as well as public awareness initiatives directed at the general public.</p> <p>Develop advocacy programmes to reach key national and regional decision makers to increase resources allocated to the WW sector and improvements in legislative and regulatory reform and monitoring and enforcement of existing regulations e.g. those related to effluent standards. Encourage gender and youth participation.</p>
<p>Caribbean Water & Sewerage Association Inc. (CAWASA)</p>	<p>Regional organization of water utilities - provides operator certification, staff training, regional</p>	<p>√</p>	

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	conferences and management support services.		
Global Water Operators Partnership (WOP) and regional WOPs – CariWOP and WOP-LAC	Shares expertise, experiences, models, lessons learned in operating water/wastewater utilities Training, fund-raising, advocacy	√	
Inter-American Association of Water and Sanitation Engineering (AIDIS)	Creates awareness on environmental, health and sanitary problems. Works with government agencies to monitor implementation of water and sanitation plans Shares information on professional development and research opportunities		
Global Water Partnership-Caribbean (GWP-C)	Network of water-related organizations in public, private and NGO sectors in the Caribbean. Water Climate and Development Programme (WACDEP) – goal is to promotewater security and climate resilience in Caribbean states. The GWP-C Journalists Network on Integrated Water Resources Management (IWRM) is a body of journalists from the Caribbean region which builds awareness on IWRM and water related issues.	√	Continue to partner with GWP-C in training and awareness raising, with an increased focus on WW management and sanitation Provides an opportunity to include wastewater issues within water planning and establish a nexus between wastewater management and water availability.
Global Water Partnership-Central America (GWP-CA)	Network of water-related organizations in public, private and NGO sectors in Central America. Conducts training and public awareness activities.	√	Continue to partner with GWP-CA in training and awareness raising, with an increased focus on WW management and sanitation. A network similar to GWP-C Journalists Network on IWRM could be established in Central America.

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The Regional Network for Water and Sanitation in Central America (RRASCA) – and its national networks e.g. Water and Sanitation Network of Honduras, Network for Water and Sanitation in Guatemala	Promotes sharing of experiences in water and WW management. Conducts training.	√	Engage in partnerships to share best practices in legal and institutional arrangements as well as appropriate technologies.
Regional and National Associations and Networks in Related Areas Interaction with these networks should be supplemented by working with key members of the networks e.g. major hotels and industries (see “Businesses” below)			
Tourism Caribbean Hotel and Tourism Association, Caribbean Alliance for Sustainable Tourism (CAST) (includes Caribbean-Central American Action (C-CAA), Caribbean Tourism Organization (CTO)) Central America Tourism & Hotel Investment Exchange National tourism associations e.g. Jamaica Hotel and Tourist Association, Panamanian Association of Hotels etc.	Organizations that promote tourism and networking among hotels and tourist attractions. CAST specifically promotes responsible environmental and social management of natural and heritage resources respectively, within the hotel and tourism sector. Hotels often manage on-site WW treatment plants and many are part of environmental certification programmes.		Since tourism is such a big part of the WCR’s economy and have such a large impact on water use and WW generation, this sector has a big role to play in effective water and WW management and should be fully engaged in CReW2.
Business National business associations e.g. Jamaica Manufacturers’	Networks that share best practices and expertise within the business community. Provides technical assistance, advocates for policy change etc.		These umbrella organizations can assist in awareness raising and training for member firms, companies, consultants to increase focus on and appreciation of effective WW

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<p>Association, Small Business Association, Private Sector Organization of Jamaica</p> <p>International Chamber of Commerce (ICC) and members (e.g. ICC Caribbean, ICC Costa Rica etc).</p>			<p>management.</p>
<p>Environment</p> <p>National environmental NGOs and professional associations e.g. Jamaica Institute for Environmental Professionals, Belize Enterprise for Sustainable Technology, Panama’s National Association for the Conservation of Nature (Ancon)</p>	<p>Networks of organizations that focus on a range of environmental issues. Engage in training, advocacy, awareness raising.</p>		<p>There are opportunities to increase focus on wastewater and sanitation issues among the various environmental messages being delivered.</p> <p>Professional organizations can provide advocacy for legislative and policy reform and can assist in capacity building/training.</p>
Businesses			
<p>Large firms e.g. breweries, sugar factories, food processors, manufacturing firms</p>	<p>Certain large firms are significant wastewater generators and are usually responsible for operating their own WW treatment plants. Other companies discharge into the general sewage system. All are accountable for ensuring that effluents meet national standards.</p>	√	<p>Share best practices and build capacity for effective WW management.</p>
<p>Local hotel owners and commercial developers</p>	<p>Maintain WW treatment plants for their own use and use of specific housing schemes.</p>		<p>Share best practices and build capacity for effective WW management.</p>
<p>Environmental services</p>	<p>Individuals and firms that provide environmental</p>		<p>Share best practices in WW management.</p>

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consultants	services such as environmental impact assessments, implementing multilateral environmental agreements, WW treatment plant design and development, monitoring etc.		Engage in process to reform legislative, regulatory and institutional frameworks. Provide training, public awareness and capacity assessments.
Multilateral and Bilateral Donors (and associated projects)			
Multilateral Donors			
<p>Caribbean Development Bank (CDB)</p> <p>Special Development Fund Unified (SDFU) – supports:</p> <ul style="list-style-type: none"> • Basic Needs Trust Fund • Caribbean Technological Consultancy Services Network • Social and economic infrastructure 	<p>With partners, has been working closely with leaders in the water sector from 16 countries to equip them to lead necessary reform in the sector.</p> <p>Example: water utility reform training for middle level managers on designing and implementing reform programmes in water utility companies in the Region (in collaboration with CReW).</p> <p>In 2013 CDB provided funding of US\$3.2M in funding for Water and Sanitation projects, while US\$4.7M in grants through the Basic Needs Trust Fund were directed to providing water supply systems for vulnerable groups.</p>	√	
Central American Bank for Economic Integration (CABEI)	<p>Supports programs and projects oriented at poverty reduction (creation of jobs and micro, small and medium enterprises), regional integration and the competitive insertion of the countries into the global economy.</p> <p>Has funded regional water and energy projects amounting to US\$ 4.06M.</p>	√	

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	<p>Examples: Supported “First Regional Meeting of Utilities: Water-Energy Sectors” in 2014. Nicaragua: approved US\$93.3M for the “Project to Improve and Expand the Potable Water Supply and Sanitation Systems in 19 Cities” Costa Rica: maintains an approved portfolio amounting to US\$103.5M for the Costa Rican Potable Water Supply Program; in 2015, plans to support the Institute of Aqueducts and Sewers (AYA) with a second water supply program amounting to US\$150M</p>		
<p>Development Bank of Latin America (CAF)</p>	<p>CAF is the main source of multilateral financing for infrastructure in Latin America. Supports projects in energy, transport, water and sanitation, telecommunication and information technology, private sector development and environment. Within water sector, promotes coverage of potable water and sanitation, management and watershed protection, agricultural development and irrigation, drainage and flood control.</p> <p>Examples: Panama: USD100 million for aqueducts and sewage systems in 2014: to modernize the systems of drinkable water and basic sanitation in the provinces of Bocas del Toro, Chiriquí, Veraguas and Panama, to benefit more than 150,000 inhabitants. Report on development models that address the access of excluded populations to water and sanitation services in Latin America.</p>	<p>√</p>	

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<p>European Union (EU)</p> <p>ACP-EU Water Facility</p>	<p>Supports sustainable delivery of water and sanitation infrastructure and improving water governance in the African, Caribbean and Pacific (ACP) group of countries. Examples in the WCR:</p> <p>Guyana: Improved water, sanitation & hygiene conditions for Hinterland Communities; Water supply and sanitation infrastructure improvement programme</p>	√	
<p>Inter-American Development Bank (IDB)</p> <p>Water and Sanitation Sector Framework</p>	<p>Supports countries of Latin America and the Caribbean in sustainably achieving universal coverage in water and sanitation and solid waste management. The work focuses on: equal access to and high quality of services; institutional governance; efficient service management, private sector participation, and financial sustainability; and inclusion of social and environmental considerations</p> <p>Incorporates Water and Sanitation Initiative</p> <p>Some activities: Barbados -Support to BWA Development Plan; Jamaica, The Bahamas - Non-Revenue Water Reduction Training</p>	√	
<p>World Bank</p> <p>Water and Sanitation Program</p>	<p>A multi-donor partnership, part of the World Bank (WB) Group's Water Global Practice, supporting poor people in obtaining affordable, safe, and sustainable access to water and sanitation services.</p> <p>Works directly with governments at the local and national level in 25 countries including countries in Latin America and the Caribbean (LAC).</p>	√	<p>Where possible links should be made to these initiatives and organizations that implement sanitation projects in the region. This would involve entering into discussions to see where the initiatives overlap best with CReW.</p>

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	<p>Shares best practices across regions and focuses on capacity-building by forming partnerships with academia, civil society organizations, donors, governments, media, private sector, and others. Work helps to effect the regulatory and structural changes needed for broad water and sanitation sector reform.</p> <p>Initiatives in WCR:</p> <ul style="list-style-type: none"> • Rural Water Supply and Sanitation (WSS) Information System (SIASAR) officially adopted by Central American Governments (FOCARD). Implemented by Dominican Republic, Honduras, Nicaragua and Panama. • Monitoring Country Progress in Water and Sanitation (MAPAS) officially adopted by FOCARD. • Nicaragua: Leveraging Investments in rural WSS; new and affordable rural sanitation technologies designed by 3 sanitation companies; Economics of Sanitation Initiative Phase II: provided information on cost-effective sanitation alternatives for a new US\$30 million WB operation. • Haiti: Cholera Elimination Strategy; support for the National Water and Sanitation Directorate (DINEPA) in improving their planning and implementation capacities. • Honduras: Mainstreaming Disaster Risk Management (DRM) in main Water Utility; support to Government to strengthen its capacity to target 		

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	the poor, as well as identifying financial mechanisms to improve and expand WSS services coverage.		
Multidonor and International Funds			
Green Climate Fund (GCF)	Established within the framework of the UNFCCC as a mechanism to assist developing countries in adaptation and mitigation practices to counter climate change.	√	Develop projects that target WW treatment solutions that address conditions affected by climate change such as increased water scarcity and reduced raw water quality – to be funded through the GCF.
Spanish Cooperation Fund for Water and Sanitation in Latin America and the Caribbean	Administered by IDB Special grant fund created by the Government of Spain to help countries in Latin America and the Caribbean expand water and sanitation services and support their efforts to reach the Millennium Development Goals for the sector.	√	Promote this fund and explore opportunities for CReW stakeholders to tap into the fund.
International Non-Governmental Organizations			
Water.org	Water.org works with network of certified, in-country partners to provide communities in Africa, Asia, Latin America and the Caribbean access to safe water and sanitation. Current projects in Haiti, Honduras, El Salvador, Guatemala		Where possible links should be made to these organizations that implement sanitation projects in the region. This would involve entering into discussions to see where the initiatives overlap best with CReW.
Millennium Water Alliance	Implements projects in Guatemala, Mexico, Honduras		
Water for People	Brings together local entrepreneurs, civil society, governments, and communities to establish creative, collaborative solutions that allow people to build and maintain their own reliable safe water systems. Projects in Guatemala, Honduras, Nicaragua.		

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Media			
Journalist networks e.g. Journalists and Communicators Network of Panama, Caribbean Environmental Reporters Network	Provide networking and capacity building among journalists	√	Take advantage of access to media professionals to further build appreciation of importance of WW and sanitation issues – as they relate to health, water supply, community development etc.
National media associations e.g. Press Association of Jamaica	Set standards for press coverage, reward good journalism		Among media decision makers, build appreciation of importance of WW and sanitation issues – as they relate to health, water supply, community development etc. – to increase coverage of these issues.
Academia and Research Institutions			
Universities in the WCR countries	Provide programmes of study in areas related to water and wastewater management e.g. natural resource management, public health. Conduct research, potentially in areas related to WW management and sanitation.	√	Investigate opportunities to use university students in WW management projects/initiatives – within government agencies, businesses and communities – for example, through an internship programme. Collaborate in R&D and best practices.
Inter-American Institute for Cooperation in Agriculture (IICA)	Provides technical assistance for agricultural development and rural development		Investigate options for linking with projects in areas related to WW management and reuse in agriculture.
National research institutes e.g. Scientific Research Centre - Jamaica	Conduct research and develop prototype examples of technology solutions.		Investigate options for upscaling pilot demonstration projects in areas related to sanitation/ WW management and reuse.
Health Institutions			
Caribbean Public Health Agency (CARPHA), Environmental Health	Responsible for management of communicable diseases, which include water-borne diseases.	√	Work to increase focus on sanitation issues and their links to human health.

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<p>and Sustainable Development Department (EHSD)</p> <p>(includes functions previously performed by Caribbean Environmental Health Institute(CEHI))</p>	<p>Addresses impacts of human activity on the environment and the consequent effects on human health. Has programmes in water resources management, management of solid, liquid, hazardous, biomedical and electronic waste. Training, public awareness. Have strong links with the “youth in the region”. CEHI hosted Caribbean Environmental Forum and Exhibition.</p>		<p>Collaborate on wastewater management training.</p> <p>Engage Health, Environment and Community stakeholders through core work areas and major multi-sectoral projects focused on pollution prevention using a ridge-to- reef approach, which includes wastewater management. Develop standards, monitoring programmes and encourage reporting, setting of targets and benchmarks.</p>
<p>Clinics</p> <p>Doctors, nurses</p> <p>Medical associations</p> <p>Public health associations</p>	<p>Responsible for primary health care. Teaching about good health practices.</p>		<p>Within existing training and public education programmes, increase focus on good sanitation practices – linking sanitation with good health.</p>
National Financial and Funding Institutions			
<p>Commercial banks, credit unions</p>	<p>Provide loans for businesses and individuals</p>	√	<p>Engage with banks to facilitate loans to businesses and community organizations for improvements in sanitation facilities</p>
<p>National funding/grants programmes</p> <p>e.g. Environmental Foundation of Jamaica, Jamaica’s CHASE (Culture, Health, Arts, Sports and Education) Fund, Jamaica Social Investment Fund (JSIF)</p>	<p>Provide funding e.g. small grants for community-based projects related to environment, health, community development etc.</p>	√	<p>Explore opportunities to promote/fund community-based projects that improve sanitation in both rural and urban communities.</p>