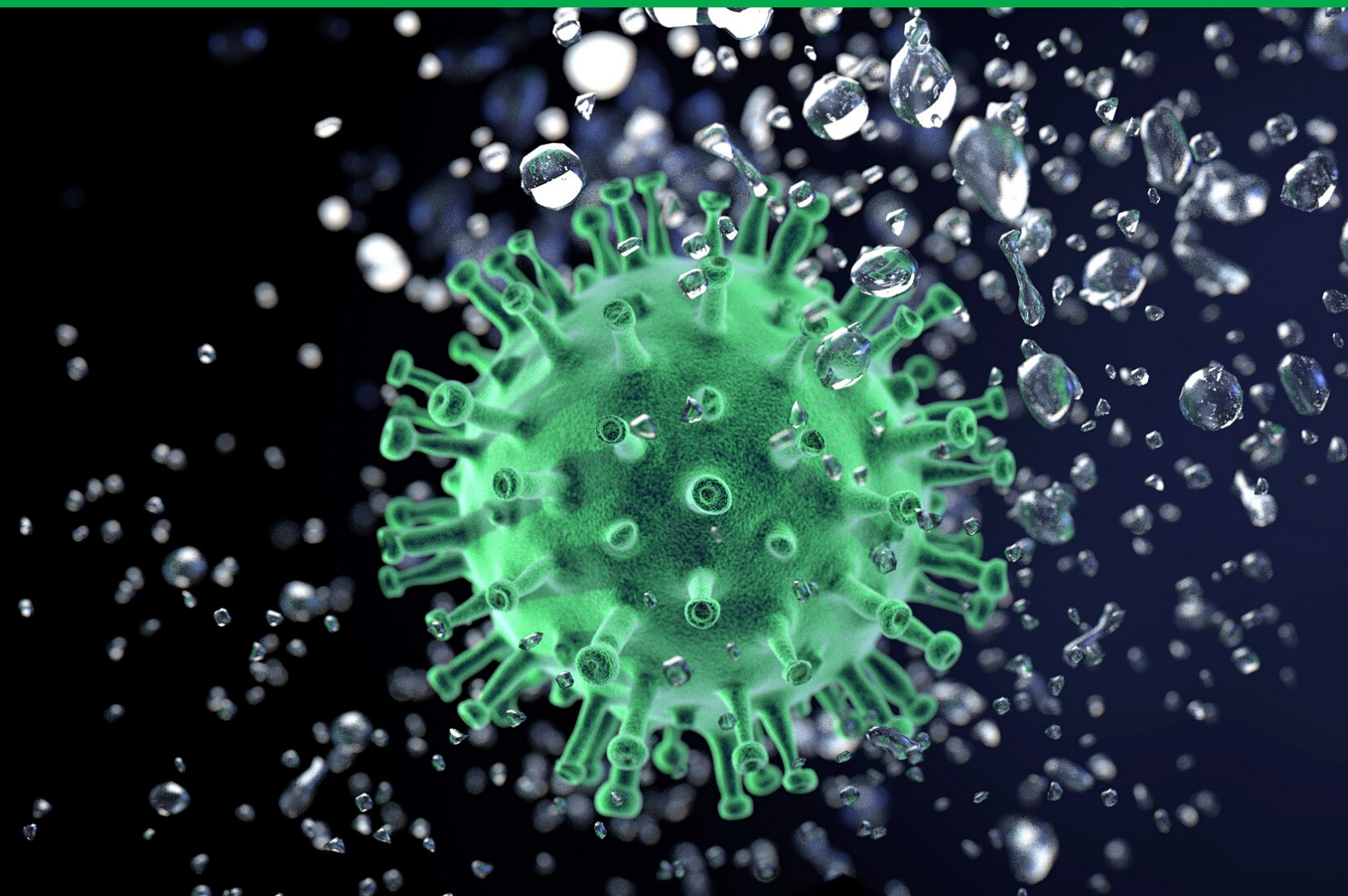


Implications of the COVID-19 Pandemic for the Caribbean Water Sector



This Perspectives Paper was prepared by the Global Water Partnership-Caribbean (GWP-C) Technical Committee (Lead Author: Dr. Kevon Rhiney). It is intended to galvanise discussion within the GWP-C network and the larger water and development community.

About Global Water Partnership-Caribbean

The Global Water Partnership-Caribbean (GWP-C) vision is for a water secure Caribbean.

Our mission is to support Caribbean countries in the sustainable management of their water resources at the community, national and regional level.

GWP-C is 1 of 13 Regional Water Partnerships of the Global Water Partnership (GWP). It was established in 2004 to foster the application of Integrated Water Resources Management (IWRM) in the Caribbean region. IWRM is the coordinated development and management of water, land, and related resources, in order to maximise economic and social welfare without compromising the sustainability of ecosystems and the environment.

Any organisation with an interest in water sustainability in the region, can become a GWP-C Partner. GWP-C currently has over 100 partners in more than 20 Caribbean countries. These include water management agencies, water user associations, private water management agencies, government institutions, academic and research institutions, private sector companies, non-governmental organisations, community-based organisations, civil society organisations, youth organisations, regional agencies, consultancy firms, among others.

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In 2021, GWP-C will hold the first-ever **Caribbean Science Symposium on Water**: <https://bit.ly/2zCtdg6>.

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Introduction

Covid-19, the disease caused by the novel coronavirus (SARS-CoV-2), has rapidly developed into a global pandemic, claiming the lives of tens of thousands of people worldwide since it first emerged in China last December. As of late March, some of the largest countries around the world including major cities and metropolises across Europe, Asia and North America have been forced to close down their economies, with stay-at-home orders in full effect. Official figures from the World Health Organization show more than 180 countries are now affected by the pandemic. To date, approximately 3.58 million people have tested positive for covid-19 around the world with more than 250,000 recorded deaths.[1]

The number of covid-19 cases in the Caribbean now surpasses 13,000 and the death toll now stands at an estimated 606 fatalities.[2] The spread of the disease has been uneven, with countries like the Dominican Republic (8,235), Puerto Rico (1,757), Cuba (1,649) and Jamaica (469) being among the hardest hit. When combined, these four countries alone account for approximately 89 percent of the total number of confirmed cases in the region. Yet the impacts from this pandemic is being felt throughout the entire region, as many governments across the Caribbean have been forced to close down their economies in a bid to curb the spread of this novel disease. Even while countries like Barbados are now looking to reopen their economies, it may take months or even years before the region can achieve some semblance of 'normalcy.' With major industries like tourism coming to a standstill, the rapid slowdown in local, regional and international trade and a global economic recession looming on the horizon, the medium to long-term economic outlook for the region looks daunting.

The International Monetary Fund has already warned that the financial crisis induced by covid-19 could result in one of the worst fallouts since the Great Depression.[3] Tied to this is a growing recognition of the highly skewed nature of the social and economic costs associated with this pandemic, with the poorest, most vulnerable and marginalized members of our society expected to be amongst the most severely impacted. This has seen many governments around the world struggling to balance the economic trade-offs with the need to preserve lives. In addition to the growing demands for governments across the region to reopen their economies amidst rising unemployment and other mounting economic costs induced by measures to contain the disease, there is a real risk of triggering a resurgence or community-level transmission of the disease, if these restrictions are relaxed too quickly.

[1] Daily situation reports are also available on the World Health Organization site.

[2] Figures were taken from the World Health Organization website on May 4, 2020.

[3] <https://abcnews.go.com/Business/coronavirus-economic-updates-imf-warns-worst-economic-fallout/story?id=70083476>.

Implications for the Caribbean Water Sector

So, what does all this mean for the regional water sector? The continued spread of covid-19 in the Caribbean will not only present a significant public health challenge for regional governments but will result in significant socio-economic fallouts, as businesses are forced to close their doors. At the center of this all is water. In addition to social distancing, washing hands with soap and clean water and generally maintaining a good personal hygiene are some of the most important ways to curb the spread of this highly infectious disease.[4] Even as we ask people to stay at home, consideration has to be given to how families who do not have water piped in their premises, will source and store water for drinking, cooking and carrying out basic household chores. It means therefore that ensuring access and availability of potable water for all, is going to be absolutely critical in the fight against covid-19 and staving off the worst of the pandemic's public health and economic impacts.

At the same time, water utilities across the Caribbean are facing an unprecedented challenge of maintaining adequate and reliable water supplies amidst declining revenue streams, largely due to the downturn in economic activities and as more and more households fall into delinquency. The stark reality is that some water utilities are already warning that they are running out of funds to continue their operations. This raises crucial questions about the efficacy of the models being used to finance water utilities across the region, and even more importantly, what a financially strapped water sector will look like under the current pandemic.

As regional governments plan ahead, we want to highlight several key areas related to water that need urgent attention in the regional response to this deadly pandemic.

▶ ***Ensuring safe, adequate and reliable access to potable water and sanitation services for vulnerable segments of society.*** Many rural communities across the Caribbean do not have access to piped water and have to rely on alternative water sources such as community standpipes, dug wells, rainwater harvesting or natural sources such as springs and rivers. This places these populations at high risk as they practice water rationing, thus prioritizing the use of water for everyday domestic chores over handwashing. Same applies to squatter settlements that are often unable to access basic water and sanitary services due to their insecure tenure status. In the case of public standpipes and other forms of communal water systems, ensuring that people maintain adequate physical distance while waiting and collecting water is absolutely crucial. Promoting proper sanitary practices in collecting, transporting and storing water will also be important to preventing the spread of the disease.

[4] The disease is transmitted mostly through coming in contact with respiratory droplets from an infected person produced by coughing, sneezing, and talking. The droplets, although produced when breathing out, usually fall to the ground or onto surfaces rather than remaining in the air over long distances. People may also become infected by touching a contaminated surface and then touching their face.

▶ **Preparing for the impacts from extreme climate events.** As the hurricane season approaches, consideration has to be given to possible disruptions that may occur to existing water supplies in the event of a storm. Likewise, the onset of dry spells or drought conditions could reduce the amount of water in storage and lead to service disruptions. In the event people are forced to store water in containers, this could increase the risk of disease transmission if the surfaces of these containers get contaminated by infected individuals. Indeed, the same is true of any situation where households do not have access to a reliable and regular supply of water; as in rural communities or squatter settlements.

In the case of the upcoming hurricane season, with forecasts predicting an above normal season, measures need to be put in place as soon as possible to prepare for possible service disruptions. Households will need to be encouraged to store water and follow proper sanitary guidelines to prevent any possibility of contamination as well.

▶ **Preparing for increased household water demand.** As schools remain closed and people are encouraged to work at home, household water consumption is expected to increase. This means it is absolutely vital for these households to have access to reliable and adequate water service provision. Another related issue pertains to the economic fallout triggered by covid-19 and the health threats this will pose to families that fall into financial hardship. Indeed, as more and more people get laid off their jobs, many households might encounter difficulties paying bills, including their water utility. It is important to put mechanisms in place to deal with such groups as any disruption in water services could increase the risk of household and community-level spread.

▶ **Promoting sound science-based decisions.** Now more than ever, there is a need for the water policy community to utilize scientific knowledge to make informed and robust decisions. Using tools like GIS to highlight and map potential covid-19 hotspots could aid in making effective decisions related to water distribution and management that may prevent or control future outbreaks. Using drought forecasts and other forms of tailored climate information services can also assist in managing available freshwater resources at the national and community level. Finally, there are many online tools that are readily accessible and open that can be used to share vital information and solutions among water sector stakeholders across the region.

▶ **Utilizing available technologies to increase online payment options for customers.** Given the need to maintain social distancing, water utilities need to consider using available technologies that can allow customers to pay their bills remotely. Most online payment options are restricted to individuals with an online banking account from a limited number of banking institutions, which excludes many persons from using these platforms. People should be able to use their mobile devices to pay their water bills directly to a water utility, for instance. The infrastructure, technology and expertise are already available in the Caribbean and should be relatively easy to set-up. Where online payment options are available, efforts should be made to incentivize their use by the general public.

- ▶ **Monitoring of source water and wastewater effluents.** Regular and effective monitoring to ensure safety of source water, as well as wastewater effluents may actually help in identifying covid-19 hotspots. Studies have indeed shown a strong link between water, sanitation, hygiene (WASH) and human health.
- ▶ **Importance of regional cooperation.** Fighting the covid-19 pandemic will also require a coordinated regional response. This should apply to the water sector as a critical engine of development. The sharing of information, tools, expertise and best practices between regional water stakeholder institutions could go a far way in addressing resource and technological constraints being experienced at the country or sub-national levels.

Future Outlook

Amidst the ongoing crisis and disruption of social and economic life, it has become clear that the world will probably never return to a state of 'normality.' This realization has caused many scientists and political pundits to reimagine what a post covid-19 world might look like. For the Caribbean, the ongoing pandemic has raised a number of important supply and demand side questions for the regional water sector. Admittedly, some of these concerns are not new but have been brought into sharp focus given the unprecedented challenges being faced globally and regionally. We conclude by offering a few thoughts as a regional collective comprising members working across the public, private and NGO sectors, regarding future prospects for the regional water sector.



Future Outlook

The current pandemic has stimulated much interest and debate around the need to reduce operational costs for water utilities across the region, amidst reduced revenue streams and mounting costs related to water service provision. For the most part, this has seen growing calls for reducing non-revenue water (NRW) losses and exploring alternative financing models (e.g. private or public-private partnerships) that can improve water utility service delivery and overall efficiency. While the focus on NRW reduction and models for service delivery are certainly important from an operational standpoint, there is also an overarching need to explore broader cost-saving strategies for the water sector. This includes exploring possible co-benefits and opportunities in transitioning towards renewable forms of energy that could lead to significant savings for water utilities over the medium and long-term.

Despite the numerous supply side challenges, the current crisis also presents an opportunity to modernize the water sector and employ strategies aimed at enhancing efficiency and building resilience to future shocks. Given the large number of households throughout the Caribbean that rely on rainwater harvesting (RWH), there needs to be greater attention given to this technology as a practical solution to all types of disasters. This will require huge investments in training for local communities, farming communities, schools, churches and other user groups and in enhancing the RWH technology itself to prevent contamination and ensure water quality. Regular water sampling which seems to have been abandoned at the public health level in some countries must be re-instituted. This should include exploring models like 'net metering' (as applied in the energy sector) that would allow user communities and utilities to benefit from the water that is collected.

Finally, the current pandemic offers a unique opportunity to advance thinking around Integrated Water Resources Management (IWRM). Bridging the gap between policy and science and promoting broad stakeholder participation in decision-making processes could go a far way in improving the management of freshwater resources in the region. If it is one thing the current pandemic has taught us, is that planning in silos is counterproductive. For instance, we cannot prioritize the need to reopen our regional economies over public health measures targeting covid-19. The two must work in tandem. This includes paying keen attention to cross-sectoral and multi-stakeholder partnerships and collaborations that can provide solid and lasting co-benefits. Given the cross-cutting and central role of water in our societies, its sustainable management will be absolutely vital in meeting the region's public health and macro-economic goals in the months and years to come.