



SPEAKING OF WATER

Digital conversation on water and sanitation
in Latin America and the Caribbean
(2016-2017)



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Digital conversation on water and sanitation
in Latin America and the Caribbean (2016-2017)

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KEYWORDS

Water, Sanitation, Hygiene, Sustainable Development Goals, Latin America And The Caribbean, Digital Conversation, Social Media

SUMMARY

Public digital conversations can offer valuable insight into how issues are being covered and discussed in online news and social platforms. This study compiles over one million news articles, blog posts and tweets that reference water and sanitation issues from October 1, 2016 to September 30, 2017 in Spanish, English and Portuguese. The analysis seeks to uncover trends, key topic areas, and patterns in public conversations particularly around the Sustainable Development Goals to guide actors working on communications around water and sanitation, particularly in an international development context.

EL AGUA HABLA SIN CESAR Y NUNCA SE REPITE¹

Octavio Paz

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¹ Water speaks incessantly and never repeats itself.

INTRODUCTION

WATER AND SANITATION IN LATIN AMERICA AND THE CARIBBEAN

Latin America is home to 30% of the world's fresh-water resources; yet, dry areas cover nearly one-fourth of the region. Even though the region has just 8% of the world's population, the effects of climate change through droughts and floods, which are becoming more frequent and intense, have been particularly devastating to our cities' water supply. All of these factors make providing safe drinking water and adequate sanitation a challenge for a rapidly urbanizing population.

Latin America and the Caribbean have made substantial, but insufficient, progress in terms of access to water and sanitation over the last two decades. Between 1990 and 2015, more than 220 million people (out of a total 600 million) gained access to water and sanitation. The percentage of people with access to improved water sources went from 85% to 95%, and those with access to adequate sanitation services shot up from 67% to 83%.²

However, there is no room for complacency. Today, there are still 34 million people in our region without access to safe water, and the figures for sanitation are much worse: 106 million people still have no adequate sanitation services, whereas 19 million continue to practice open defecation. The numbers are much worse among the most vulnerable segments of society and in the most remote areas of our continent.

Why do these coverage gaps persist? We could consider this a financing issue. Over the past 25 years our region has invested very little in new water and sanitation infrastructure. As if this were not bad enough, we are not doing what it takes to maintain the existing networks. As a result, between 30 and 60% of total water supplies are lost due to network leakage.

The Sustainable Development Goals (SDGs) adopted by the 70th UN General Assembly, specifically SDG6, seeks to ensure the availability and sustainable management of water, sanitation and hygiene for all by the year 2030. Governments should work not just on ensuring service quality, but also reducing wastewater pollution, strengthening water governance, boosting efficiency in the use of water resources, and protecting our natural capital. On wastewater treatment the region still lags far behind: only 18% of the region's wastewater is being treated, compared with an average of 60% in high-income countries.

Besides meeting the universal access goal, we also face the challenge of improving service quality for those already connected to the network, and that's no easy task. It is estimated that more than approximately 200 million people receive non-continuous service (less than 24 hours per day). If we factor water quality and pressure into the water access data, service coverage would drop by approximately 20%.

These challenges may appear daunting, however, it's impossible to speak of sustainable development without guaranteeing quality water and sanitation for all. In that sense, it is important to recognize that SDG6 is key to the fulfillment of the overall 2030 agenda, particularly for targets related to health, nutrition and food security, education and gender equality. Hence, the international community needs a better understanding of the progress we have achieved in terms of access and service quality, and the challenges ahead to improve the quality of lives around the world. We hope the findings of this analysis are a positive contribution towards that direction.³

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² Los desafíos de la agenda de desarrollo post-2015 para el sector de agua y saneamiento en América Latina y el Caribe : <https://publications.iadb.org/handle/11319/7583#sthash.aqy1R7n.dpuf>

³ The authors wish to clarify that this analysis does not cover all digital conversations, justify or explain any action

HIGHLIGHTS: PUBLIC DIGITAL CONVERSATIONS IN LATIN AMERICA AND THE CARIBBEAN AND THE 2030 AGENDA

Public digital conversations can offer valuable insight into how issues are being covered and discussed in online news and social platforms. This allows governments and organizations to stay tuned in to what matters to public constituents, and evaluate how, and if, priorities within public policies are aligned.

This analysis compiles over one million news articles, blog posts and tweets that reference water and sanitation issues⁴ from October 1, 2016 to September 30, 2017⁵ in Spanish, English and Portuguese. Using Natural Language Processing⁶, relevant articles, posts and tweets were identified and mapped into thematic clusters to uncover trends, key topic areas, and patterns in public dialogue around the SDGs, particularly around water, sanitation and hygiene. The analysis also utilizes Google Trends data related to water and sanitation to gain further insight into people's interests based not only on what they share content about, but also what information they search for.

The information obtained through this dataset was analyzed to address the following questions: What are the key areas of discussion on water and sanitation in the region? What are the predominant areas of concern? And, how are water and sanitation being addressed in the framework of the SDGs?

Network 1 (below) maps news and blogs articles published globally about the SDGs and Latin America and the Caribbean during the period of the study broken down into clusters, or key thematic areas. These clusters align to the 17 SDGs. For instance, Goal 7 which focuses on affordable and clean energy is reflected in the renewable energy cluster (light green), and Goal 5, which focuses on gender equality, appears as the women's empowerment and gender violence cluster (dark green).

Water and sanitation issues (blue), the focus of Goal 6, are both a central and transversal topic, since the cluster is located at the heart of the network and tightly connected to several different thematic areas including renewable energy, oceans and marine life, sustainable urban development, forest and deforestation and maternal life.

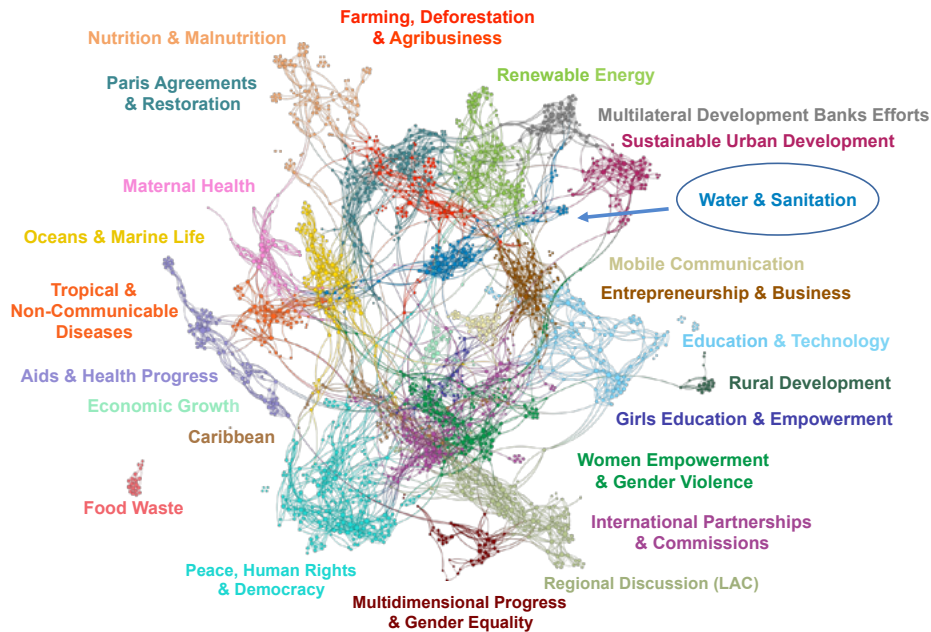
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referenced. it is intended to be a guide to those working on communications in water and sanitation for their digital strategies and other communications efforts.

4 Articles, posts and tweets all represent publicly-available text that were obtained via the development of complex boolean searches to identify content referencing a series of water and sanitation related issues as defined by the Inter-American Development Bank.

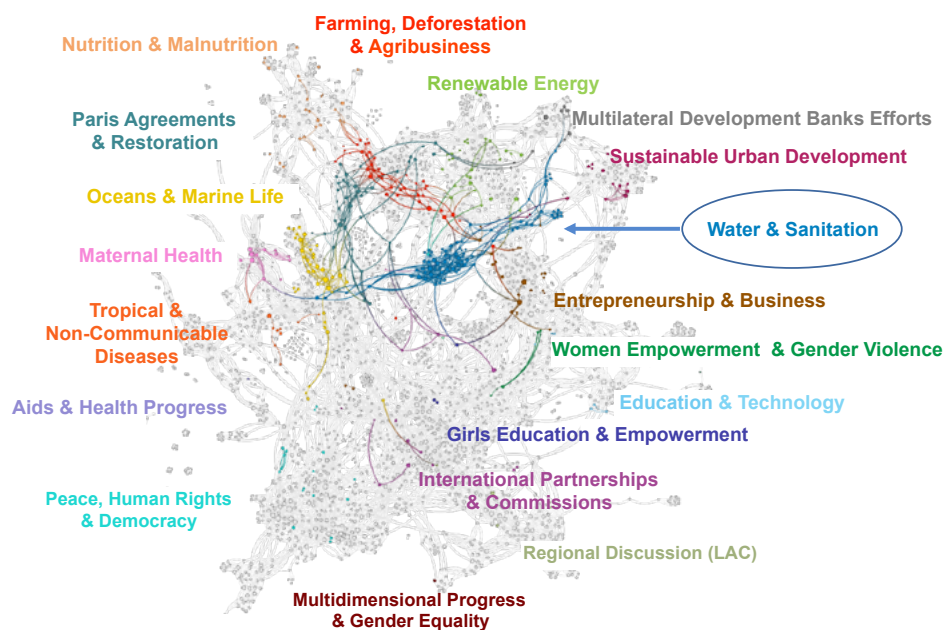
5 In the section "The Future of Water", the data analyzed was from January 1, 2016 to December 2017

6 The thematic mapping was applied using the Quid platform, a tool that uses natural language processing to compile and organize text-based data for analysis. More: www.quid.com



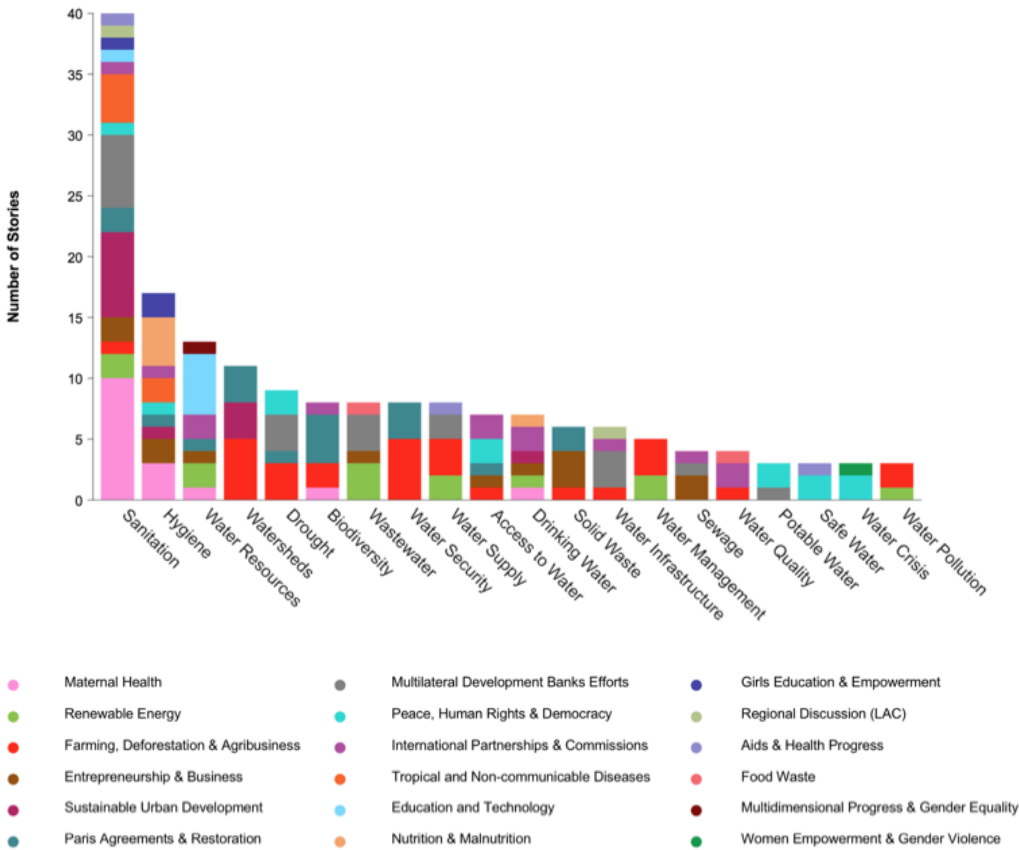
NETWORK 1 WITH 2111 NEWS AND BLOG ARTICLES PUBLISHED FROM OCTOBER 2016 TO SEPTEMBER 2017 THAT MENTION THE SDG'S IN LATIN AMERICA AND THE CARIBBEAN

Moreover, conversation about water and sanitation is not confined to a sector discussion (its own cluster); these issues are also discussed in the context of larger development challenges. Network 2 (below) highlights articles that reference water and sanitation issues across the SDGs conversation. The prevalence of water issues across the network shows that water issues are not limited to their own development area but instead are central to the development conversation, touching on discussions ranging from women's empowerment to peace and human rights.



NETWORK 2 WITH 2111 NEWS AND BLOGS ARTICLES PUBLISHED FROM OCTOBER 2016 TO SEPTEMBER 2017 THAT MENTION THE SDGS AND LATIN AMERICA, HIGHLIGHTING THOSE ARTICLES THAT MENTION WATER AND SANITATION ISSUES.

However, there are some differences in how water, sanitation and hygiene are framed in the larger development discussion. As seen in Graph 1, sanitation is primarily mentioned in the area of maternal health (pink), sustainable urban development (magenta) and tropical and non-communicable diseases (orange). Hygiene is referenced in conversations on nutrition and malnutrition (light orange), maternal health (pink), and girls’ education and empowerment (blue). Meanwhile, watersheds, biodiversity, water security, water supply and management are frequently framed as farming, deforestation and agriculture issues (red). Wastewaters, water management, and water pollution are typically discussed within the renewable energy discussion (light green).



GRAPH 1 SHOWS WHERE MENTIONS TO WATER AND SANITATION ISSUES APPEAR IN THE SDGS CONVERSATION. EACH COLOR REPRESENTS ONE OF THE CLUSTERS ON THE SDGS AND LATIN AMERICA AND THE CARIBBEAN NETWORK.

On Twitter, the conversation around water and the SDGs frequently cites Goal 6 and the importance of water in other areas of development, including environment, climate change, health, agriculture, food security, and rural development.⁷

⁷ Articles, posts and tweets all represent publicly-available text obtained via complex boolean searches to identify content referencing a series of development sectors, as defined by the Inter-American Development Bank.

Imposible, hablar de salud, alimentos, #ecosistemas y #ServiciosAmbientales, #DDHH y #JusticiaSocial, #ODS sin hablar de agua. #WWCongress

🐦 @AgroDer (May 30, 2017)⁸

(It's impossible to talk about health, food, ecosystems and environmental services, human rights and social justice, #SDGs without talking about water. #WWCongress - Translation)

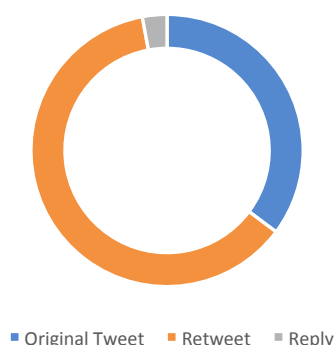
#ODS 6 refleja agua y saneamiento como prioridad vinculada a salud, seguridad alimentaria, cambio climático y resiliencia a los desastres

🐦 @ONUEISalvador (April 27, 2017)⁹

(#SDG6 reflects water and sanitation as a priority for health, food security, climate change and disaster resilience -Translation)

WATER AND SANITATION CONVERSATION TRENDS IN LATIN AMERICA AND THE CARIBBEAN

When talking about water and sanitation, individuals on Twitter largely retweet information and news provided by media outlets, government officials and agencies, international organizations and other citizens. From the million tweets analyzed in Spanish, English, and Portuguese, 61.9% are retweets (sharing content created by another user), while only 35.2% are original tweets (where the user drafts his/her own content) and 2.9% are replies (user directly engages in conversation with another user) (Graph 2). The percentage difference between retweets and original tweets is more pronounced on international events or days, where the amount of retweets increases substantially as users share content created by large international organizations.¹⁰



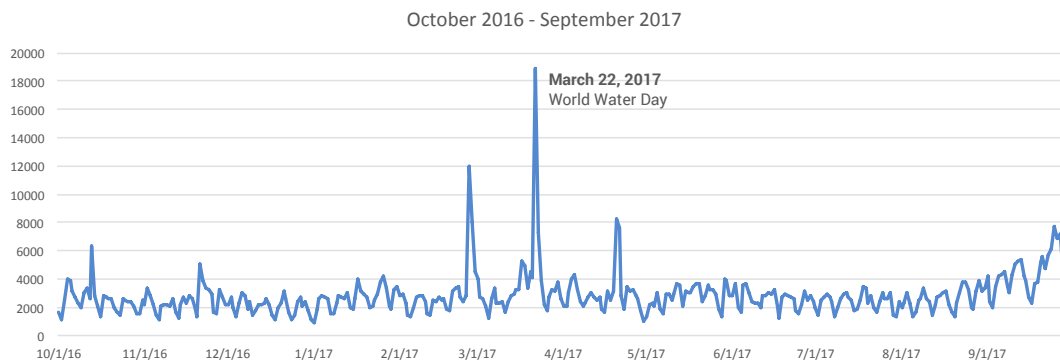
[GRAPH 2] - BREAKDOWN FOR WATER AND SANITATION TWEETS INTO ORIGINAL TWEETS, RETWEETS (SHARING SOMEONE ELSE'S CONTENT) AND REPLIES (DIRECT CONVERSATION WITH ANOTHER USER)

8 https://twitter.com/AgroDer/status/869671548608692224/photo/1?ref_src=twsrc%5Etfw&ref_url=https%3A%2F%2Fapp.brandwatch.com%2Fproject%2F1998175598%2Fdashboards%2F378767

9 <https://twitter.com/ONUEISalvador/statuses/857656848299827202>

10 World Water Week (Retweets 92.79% - Original Tweet 7.21%), World Water Day (Retweets 64.39% - Original Tweet 35.61%).

The day with the highest volume of conversation was March 22, 2017 (Graph 3), which is World Water Day. This day represents the highest conversation peak in each of the countries analyzed¹¹. On February 26, 2017 and April 21, 2017 the conversation peaked around the water cuts in Santiago (Chile), and the rising volume of mentions in September 2017 was due to a combination of events including the earthquake in Mexico and a particularly devastating hurricane season for the Caribbean.



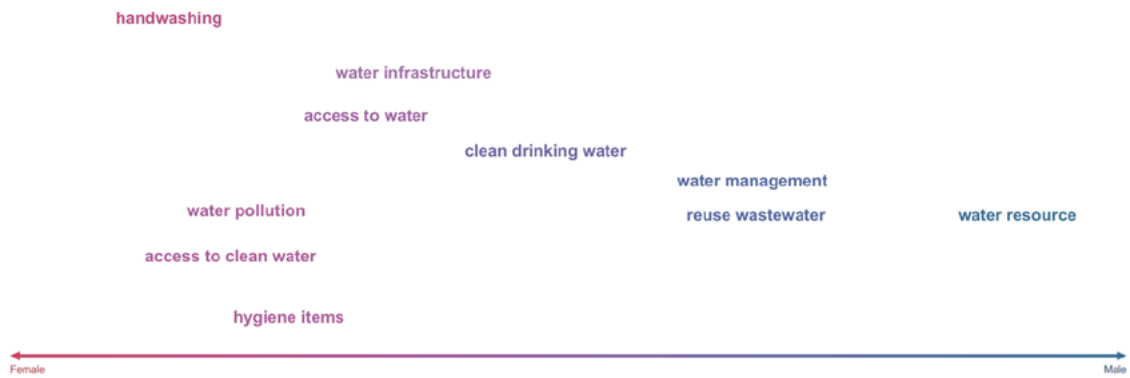
[GRAPH 3] - TIMELINE OF THE WATER AND SANITATION CONVERSATION

In the region, 59% of the tweeters participating in the water and sanitation conversation analyzed are from men and 41% from women.¹² This gender breakdown is consistent with trends seen across all other development sectors analyzed by the IDB, except for gender and diversity, where the ratio of female users is higher. In most of the analyzed countries, the percentage of male accounts is higher, with the exception of Argentina, Barbados, Haiti, Jamaica, Nicaragua, Paraguay and Trinidad and Tobago, where there are more female accounts discussing water and sanitation than male accounts.

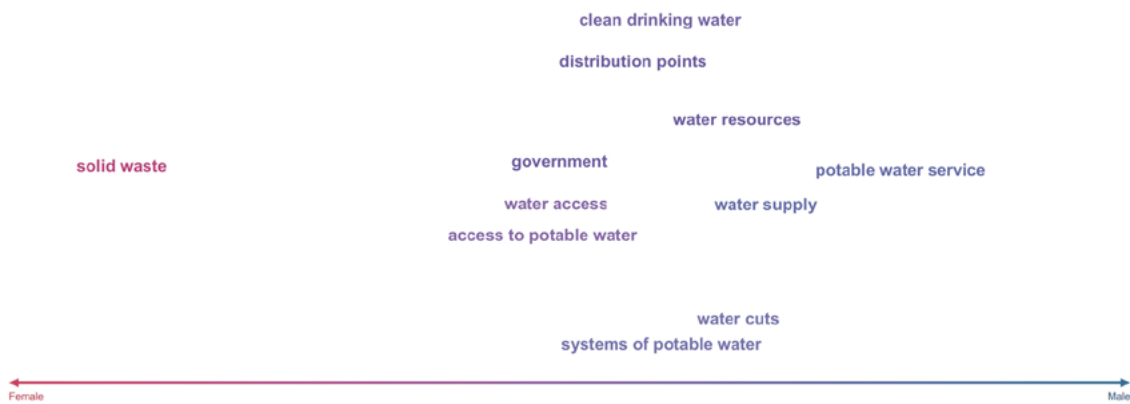
There are notable differences in what female and male accounts discuss when it comes to water and sanitation. In English, female tweeters tend to talk more about issues related to health and access, such as hand-washing, hygiene (particularly after Hurricane Matthew in Haiti) and access to clean water, while male accounts focus on water infrastructure issues such as, water resources, water management and reuse of wastewater (Graph 4). This difference can be explained by the fact that much of the content shared by female tweeters are retweets of content by international organizations that frequently focus on these issues, and in addition, a reflection of a greater prevalence of males working in the water sector and holding government roles and as a result talking more about the related water infrastructure projects. In the Spanish conversation (Graph 5) this difference is less pronounced - topics are more evenly split between genders with female tweeters talking slightly more about solid waste management and male accounts more focused on water services and supply, as well as water cuts.

11 From the million tweets and news articles analyzed, 19.87% came from Mexico, 16.15% from Venezuela, 12.68% from Argentina, 12.23% from Brazil, 10.88% from Chile, 7.55% from Colombia, 6.94% from Ecuador and 4.24% from Peru. The Dominican Republic, Panama and Bolivia had less than 2% and the remaining countries were less than 1%.

12 The gender breakdown is defined using a classification of first names and a list of gender-indicative words, such as 'mum', 'father', housewife', etc. Ambiguous names, which could belong to either gender are left unclassified. More: <https://www.brandwatch.com/blog/product-update-gender-and-account-type-for-twitter/>



GRAPH 4 - COMPARING TOPICS BY AUTHOR GENDER IN THE ENGLISH CONVERSATION



GRAPH 5 - COMPARING TOPICS BY AUTHOR GENDER IN THE SPANISH CONVERSATION ¹³

A. WATER SHORTAGE AND CUTS DRIVE WATER CONVERSATION

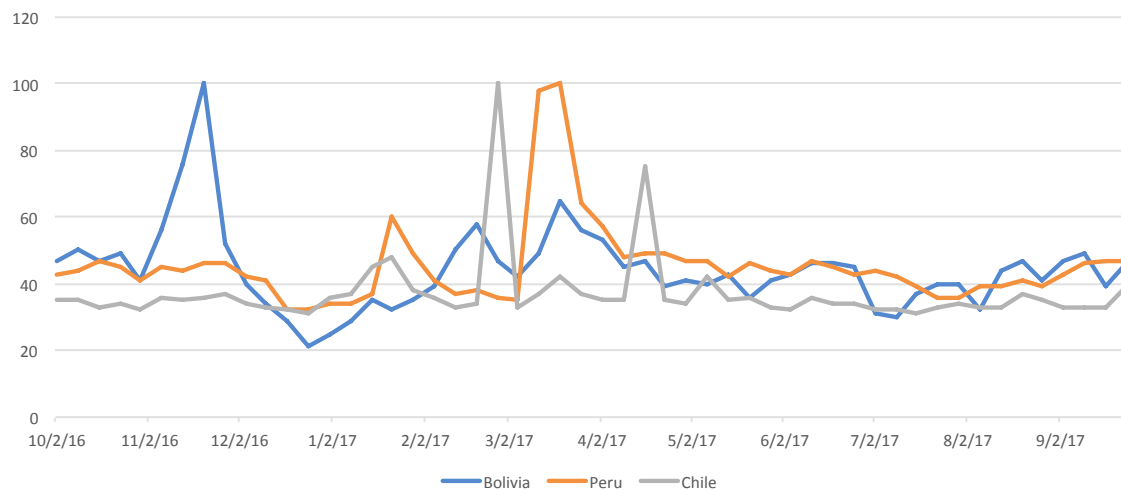
By and large, water and sanitation issues get the most attention and generate the most discussion when services are lacking or interrupted. News media cover water cuts, but more notably, Twitter becomes a critical channel for broadcasting complaints by the general population about interruptions in water service and announcements from utilities or government agencies on progress to restore services.

The causes of shortages and cuts vary by country; however, there is a consistency of service interruptions related to natural disasters, shortages in energy supply in water treatment plants, and droughts. Over the year analyzed, floods and mudslides in Chile and Peru were the most notable examples of natural disasters affecting the water supply directly in major cities, people in Paraguay and Panama were affected by energy shortages, and Bolivia faced a severe drought for over a month.

¹³ Visualization obtained via Brandwatch. More: www.brandwatch.com

Concerns about shortages, interruptions or cuts are also reflected in the spike in water-related Google searches.¹⁴ Many of these searches are related to “water scarcity” and “water cuts”, reaffirming that interest in water increases notably when it is lacking.

Graph 6 shows Google searches for water (agua) in Bolivia, Chile, and Peru.^{15 16} In Bolivia, searches grew on November as the drought and water shortage intensified; in Chile, searches peaked on February 26 coinciding with the water cuts in Santiago; and in Peru, searches increased in March when the water cuts in Lima occurred. For the three countries, Google search peaks coincided with peaks in the digital conversation in each of the three countries.



[GRAPH 6] - GOOGLE SEARCHES IN BOLIVIA, CHILE AND PERU

B. NATURAL DISASTERS AND CLIMATE CHANGE SPUR RENEWED FOCUS ON WATER AND SANITATION

After natural disaster strikes, water becomes an immediate focus of conversation, primarily around two key aspects: one, that providing drinking water is an essential part of relief efforts and two, how water supply systems are interrupted.

In the region, the overall public conversation turned around both immediate and long-term needs to provide drinking water to the people affected by natural disasters. In Peru, after the floods, people focused on the importance of a solution to avoid health problems due to lack of clean water and food over the long term. In Haiti, conversation after Hurricane Matthew focused on relief efforts to provide drinking water and aid and following Hurricane Irma news emphasized the importance of preventing further spread of diseases.

¹⁴ Google Trends data is an unbiased sample of Google search data that allows for the measurement of interest in particular topics across search, from around the globe, down to city-level geography. The data is anonymized, categorized and aggregated. More: <https://medium.com/google-news-lab/what-is-google-trends-data-and-what-does-it-mean-b48f07342ee8>

¹⁵ The y axis represents search interest relative to the highest point on the chart for the given region and time.

A value of 100 is the peak popularity for the term. More: <https://support.google.com/trends/?hl=en#topic=6248052>

¹⁶ Google Trends for water (“agua”) in Bolivia, Chile and Peru from 10/1/16 to 9/30/17

Damage to water infrastructure because of natural disasters also produces spikes in the public conversation. For example, the landslide in Mocoa, Colombia affected the water supply leading to a long period of reconstruction efforts. Hurricanes destroying water infrastructure in Costa Rica, Nicaragua, and Haiti (among other nations in the Caribbean basin) also generated discussions as a result.

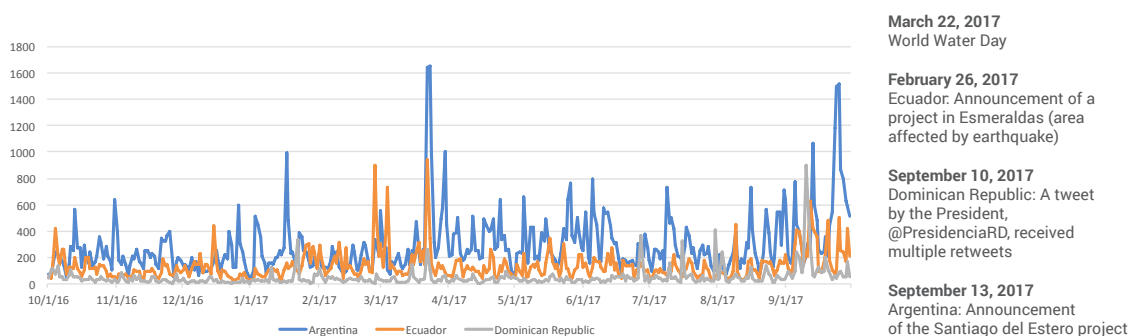
In addition, droughts and drying up of water sources is a growing area of concern. For instance, in Bolivia, the water crisis that generated a peak in conversation in November to December was consequence of a severe drought. Meanwhile, in Nicaragua, one of the top shared stories is related to the drying up of over 100 rivers in the country. These examples provide indication that there is an opportunity to build discussion on the importance of water resource management to enable improved long-term planning.

C. GOVERNMENTS ARE WORKING TO EXPAND AND IMPROVE WATER SERVICE FOR EVERYONE

Government agencies, water utilities and other actors in the water and sanitation sector throughout Latin America and the Caribbean leverage Twitter to communicate about their projects and initiatives. Projects include infrastructure improvement, construction, repairs and sanitation efforts. In Argentina, this conversation is particularly pronounced, where there is a substantial conversation about projects to improve access to potable water and sewage systems. In Panama, Peru and Bolivia conversation is focused on sanitation efforts for large bodies of water such as the Panama Bay and Lake Titicaca.

Communication approaches differ across the governments throughout the region. For instance, tweets from the Argentine government frequently use the hashtag #PlandeAgua (Water Plan) to announce their projects, and in Panama, the government uses the hashtag #SanidadBásica (Basic Sanitation), and in the Dominican Republic tweets from the government link improving water access and systems to improve quality of life.

Across the region, citizens engage in these conversations by retweeting the announcements (Graph 7). Days in which governments announce projects or other related communications have the highest number of mentions in the country. For instance, the top conversation peaks in Argentina, Uruguay and Dominican Republic, El Salvador, and Ecuador are the result of retweets of government announcements.



[GRAPH 7] - TWITTER MENTIONS OF WATER AND SANITATION IN ARGENTINA, ECUADOR AND DOMINICAN REPUBLIC

D. THERE IS A GROWING CONVERSATION ON TREATMENT OF WASTEWATER AND SOLID WASTE

Wastewater and solid waste management is an emerging area of conversation in the region as governments work to improve and expand their capacity to manage waste and raise awareness about the issue. Solid waste projects receive a lot of attention in digital media, particularly in Costa Rica, Colombia, Ecuador, Dominican Republic, Jamaica, Guatemala, and Mexico.

For instance, in Costa Rica, conversation on treatment and recycling of solid waste from government, organizations and individuals increased in the last year. In Colombia, there has been a strong emphasis on management and training in solid waste practices. In Ecuador, the conversation focuses on government initiatives to raise awareness among citizens. Meanwhile in Jamaica, public discussion revolves around government's efforts to improve waste management.

These topics have been increasing in volume in recent years, and are frequently linked to environmental concerns, highlighting the benefits of effective solid waste management for environmental sustainability, and promoting protection and conservation of the environment with improved wastewater treatment.

E. GOVERNMENTS PLAY AN IMPORTANT ROLE IN PROTECTING WATER RESOURCES

Protection of water resources and expansion of water access are the responsibility of everyone, including governments, citizens and organizations. Regulations and laws present an opportunity to move towards a more formalized and systematic means of protecting water resources and ensuring universal access. Although water regulation is not the most discussed topic (based on volume) in social media, and is largely covered in national news, the topic is gaining momentum in Colombia, Chile, Dominican Republic, and Brazil.

Water protection discussions touch on issues of human rights to tariffs. For instance, in Colombia, a National Water Council was created on World Water Day to coordinate intersectoral policies that promote sustainable water consumption. In Chile, debates to reform the Water Code received substantial coverage in national news. In Dominican Republic, World Water Day sparked a conversation on the need for a water regulation to protect and promote sustainable use of water. In Brazil, the Social Water and Sewage Tariff “Tarifa Social de Água e Esgoto”, a regulation aiming at reducing the cost of water and sewage to facilitate water access to low-income families, was approved on June 7, 2017.

Citizens do not directly engage in this conversation, and when they do, it is generally to share (retweet) information shared by news outlets or organizations, without adding much input or personal commentary on the issue.

F. A MORE FORWARD-LOOKING WATER CONVERSATION

Water conversation is reactive in nature, with digital actors discussing shortages, cuts or other service problems as they happen. When services are restored, the conversation drops. Therefore, there is an

opportunity for institutions working in the sector to generate and sustain discussion on water that is geared towards a more forward-thinking model. For example, issues such as water supply sustainability, shared water resources, and innovation in services (both supply and demand) are currently very limited.

Mentions of water innovation were minimal during the period analyzed and limited to a few mentions of technological development to improve water supply and water purification. Most tweets referred to AguaClara's water treatment plant, which states that it provided water to over 60,000 people in Honduras without using electricity. A Colombian startup Vaten Lifid was also mentioned as it developed a technology to save potable water. There were also a few mentions about a technique developed in Mexico to purify seawater. These examples received some attention on social media, but their spread was minimal, which indicates more could be done to grow the conversation around innovation and water.

**La revolucionaria invención que provee de agua potable
(sin electricidad) miles de personas en Honduras**

🐦 @BBCmundo (August 28, 2017)¹⁷

(A revolutionary invention provides drinking water (without electricity) to thousands of people in Honduras - Translation)

**Emprendedores colombianos desarrollan sistemas para ahorrar
hasta el 80% del agua potable. #FelizViernes emprendedor**

🐦 @DesEconomicoBog (March 10, 2017)¹⁸

(Colombian entrepreneurs develop systems to save up to 80% of drinking water. #HappyFriday entrepreneur - Translation)

**#Innovación Mexicano inventa desalinizador de agua de mar
para convertirla en agua potable <https://goo.gl/9o8YDX>**

🐦 @factorciencia (February 17, 2017)¹⁹

(#Innovation Mexican invents seawater desalination to turn it into drinking water - Translation)

INTERNATIONAL DAYS AND EVENTS

International days play a key role in raising awareness about the state and importance of water and sanitation. Conversations around days and events are a great platform to push a substantive discussion on water and sanitation and the future of services, particularly given the challenges imposed by climate change. However, currently individuals' participation in these global discussions is largely passive, as they mostly retweet content from organizations, rather than entering into a substantive discussion of what can be done.

17 http://www.bbc.com/mundo/noticias-41042498?ocid=socialflow_twitter

18 <https://twitter.com/DesEconomicoBog/statuses/840166178211409920>

19 <https://twitter.com/factorciencia/statuses/832626914460389376>

In Latin America and the Caribbean, World Water Day (March 22) produces the largest peak in the digital conversation and World Water Week has gained relevance in the region in recent years.



[GRAPH 8 - WORLD WATER WEEK WORD CLOUD]



[GRAPH 9 - WORLD WATER DAY WORD CLOUD]²⁰

WORLD WATER WEEK²¹ :

World Water Week is a conference sponsored by the Stockholm International Water Institute (SIWI), that aims to “provide a unique forum for the exchange of views, experiences and practices between the scientific, business, policy and civic communities.”²² During the week, the conversation on Twitter is driven by tweets generated by international organizations, development agencies and nongovernmental organizations (NGO’s) highlighting statistics about water and sanitation and raising awareness on key water-related concerns.

Each year, the forum focuses on a different theme, for example, 2017 focused on “Water and Waste: Reduce and Reuse”²³, and as a result, tweets (mostly in English) focused on issues of water conservation.

In Latin America and the Caribbean, individuals have limited engagement in the conversation, as demonstrated by the high proportion (92.79%) of retweets of content generated from organizations participating in the conference, rather than substantive original content created by civil society in the region.

²⁰ Visualization obtained via Brandwatch. More: www.brandwatch.com

²¹ 1,666 Tweets analyzed from August 26, 2017 to September 2, 2017

²² For more information: <http://www.siw.org/what-we-do/worldwaterweek/>

²³ For more information: <http://www.siw.org/what-we-do/worldwaterweek/>

180 millones de personas no tienen acceso a agua potable. ¡Protejamos este recurso vital! [http://unep.org/environmentassembly/es/agua-dulce ...](http://unep.org/environmentassembly/es/agua-dulce...)
#SemanaMundialDelAgua

🐦 @ONU_es (September 1, 2017)²⁴

(180 million of people do not have access to drinking water. Let's take care of this vital resource - Translation)

By 2030, water demand is expected to increase by 50%, making wastewater management crucial. <http://bit.ly/2gbveGc>
#WWWeek @IUCN_Water

🐦 @IUCN (August 28, 2017)²⁵

WORLD WATER DAY (MARCH 22)²⁶

World Water Day is an international awareness day sponsored by the United Nations to “focus attention on the importance of water”.²⁷ As a result, conversation on Twitter focuses on water access and other water-related statistics around the world, and the importance of water resources conservation. Most tweets come from organizations, NGOs, politicians and government agencies, and individuals participate mostly through retweets of these mentions (64.39% of mentions). The news cycle focuses on water, wastewater, the state of water worldwide, and government actions and regulations to preserve and protect water.

World Toilet Day on November 19th is another important date on the water and sanitation calendar. However, in the region, the conversation is minimal. One possible explanation is the word “retrete” in Spanish and “sanita” in Portuguese. Both terms are not frequently used in Latin America and the Caribbean where other more generic terms are preferred such as “baño”, “inodoro” “excusado” or “servicio” among others. Hence, the conversation might be fragmented or has not picked up.

#DíaMundialdelAgua. Las tareas pendientes en Chile. Urge reconocer el derecho humano al agua y al saneamiento. [http://www.chilesustentable.net/dia-mundial-del-agua-las-tareas-pendientes-en-chile/ ...](http://www.chilesustentable.net/dia-mundial-del-agua-las-tareas-pendientes-en-chile/)

🐦 @AdrianaEGomez (March 22, 2017)²⁸

(#WorldWaterDay. The pending tasks in Chile. It is urgent to recognize the human right to water and sanitation.- Translation)

Aguas residuales, un nuevo ‘oro negro’ contra la escasez

📰 Dia a Dia (March 22, 2017)²⁹

(Sewage, a new ‘black gold’ against scarcity-Translation)

24. https://twitter.com/ONU_es/status/903680102419931137

25. <https://twitter.com/IUCN/status/902129130719805440>

26. 17, 352 Tweets and 761 News analyzed.

27. For more information: <http://worldwaterday.org/>

28. <https://twitter.com/AdrianaEGomez/statuses/844529624226942981>

29. <https://www.diaadia.com.pa/mundo/aguas-residuales-un-nuevo-oro-negro-contra-la-escasez-312372>

On March 22, 2016 the most retweeted content was a statistic that 663 million people in the world do not have access to potable water, retweeted 2,578 times.

En el mundo hay 663 millones de personas no tienen acceso a agua potable. En el #DíaMundialDelAgua tomemos conciencia.

🐦@PaisajesGeo (March 22, 2017) ³⁰

(There are 663 million people in the world who do not have access to drinking water. Let's raise awareness on #WorldWaterDay - Translation)

Moreover, mentions of World Water Day also appear in other IDB sectors of interest, such as climate change and sustainability, referring to the importance of natural resources and environmental protection.

#DíaMundialdelAgua: Contaminación y cambio climático afectan la calidad del agua en República Dominicana <http://bit.ly/2n5re9N>

🐦@DiarioLibre (March 22, 2017) ³¹

(#WorldWaterDay: Pollution and climate change affect water quality in the Dominican Republic - Translation)

**Stop putting rubbish, oils & chemicals down the drain.
Protect the environment & our water resources.
#WorldWaterDay <http://www.worldwaterday.org>**

🐦@UN_Water (March 22, 2017)

THE FUTURE OF WATER

Water is essential to sustainable development. It is a vital resource for key economic activities such as energy production, mining and agriculture. However, it is a scarce resource. Tradeoffs between water conservation, infrastructure investments, water service provision and economic growth must be balanced to achieve sustainable development. As mentioned before, because of climate change, water security is increasingly compromised in Latin America and the Caribbean, especially in cities. The frequency and intensity of extreme weather events like floods and droughts increase every year, putting populations and economic activities at risk.

This explains why, in recent years, there has been a growing trend towards water resources management linked to environmental sustainability. More attention is being paid to government's actions and regulations to preserve and protect water resources, especially those focusing on water security and water for productive use, and their connection with sustainable development.

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30 <https://twitter.com/PaisajesGeo/statuses/844607172042510338>

31. <https://twitter.com/DiarioLibre/statuses/844519216220909569>

EVOLUTION OF THE WATER CONVERSATION ³²

In the last two years, the most notable shifts in the water and sanitation conversation have occurred around four issues: solid waste, environment, water consumption, and water resources.



GRAPH 10 WATER AND SANITATION CONVERSATION IN 2016, AS MAPPED INTO THEMATIC CLUSTERS

GRAPH 11 WATER AND SANITATION CONVERSATION IN 2017, AS MAPPED INTO THEMATIC CLUSTERS

Graphs 10 and 11 illustrate how the water conversation is evolving in recent years. Solid waste (brown), a largely absent topic in the 2016 water discussion, appeared in 2017 with a distinct environmental slant, as indicated by its connection to the environmental cluster. Tweets highlight the benefits of effective solid waste management for environmental sustainability, the disadvantages of pollution, and awareness-building about the need to protect the environment. The 2016 conversation on solid waste was smaller and referred mostly to recycling.

Conversation about water and environment (orange) also increased. In 2016, mentions encouraged citizens to take care of the environment by recycling and changing their habits. In 2017, mentions promoted environmental protection and conservation, and highlighted the importance of wastewater treatment. This connection is visible by the movement of wastewater treatment and sewerage (purple) towards the environmental conversation.

Although water consumption (light green) and water resources (blue clusters) were topics discussed in 2016, they were largely isolated from the larger water conversation as they reference sporadic health problems caused by water pollution. However, in 2017, these topics took on a more central position in the discussion, focusing on improving water quality for human consumption.

The 2016 conversation on water resources emphasized countries' initiatives to protect water resources and international organizations efforts to promote effective water resources management. Moving towards 2017, mentions of water resources focused on civil society's efforts to preserve resources, as well as environmental education and capacity building.

Conversation about pollution (yellow) also shifted: In 2016, the conversation focused on pollution of potable water and water bodies in different countries. In 2017, the pollution discussion weakened, but remained central to the overall discussion, particularly linked to water consumption.

³² Analysis of 12,769 original (not retweets) Twitter mentions with at least 20 retweets from January 2016 to December 2017 related to water and sanitation issues, as defined by the Inter-American Development Bank.

CONCLUSION

In 2015, the challenge for Latin America and the Caribbean became how to undertake and pursue the SDGs, and water is central to this challenge. Without SDG6, reaching the other goals will be very difficult.

SDG6 includes a set of targets that reflect the importance of water for both humans and the environment. These targets trigger a service universalization challenge but go beyond access to emphasize the importance of guaranteeing service quality, sound wastewater management, and adequate governance.

In Latin America and the Caribbean, the public digital conversation has captured this shift in the conversation - there is an increasing link between discussions on water and environment, including all cross-cutting issues around those topics (water resources management, wastewater, reuse, solid waste management, among others).

Digital media channels can be a great tool for institutions working in the sector to inform and create awareness of the challenges and opportunities to reach the 2030 agenda. Moreover, there is still great potential to use these platforms as an engagement tool to generate a public discussion with all the actors involved in how the region will effectively implement, measure and monitor SDG6, and ensure the conservation and sustainable use of our water resources.

ANNEX

REGIONAL SUMMARY

COUNTRIES OF THE ANDEAN GROUP³³

Water shortages and cuts are the most widely discussed issues. The volume of conversation about water increases whenever cuts and shortages happen. Local water companies and government agencies use Twitter to announce water distribution locations and schedules, and individuals take to Twitter to express complaints.

Following natural disasters in Peru and Colombia, the conversation revolved around raising awareness about water infrastructure and the effects of climate change, as well as broadcasting emergency responses to provide clean water.

Governments announce and promote projects to improve water and sanitation using Twitter. Projects and initiatives in solid waste emerged, particularly in Colombia, Ecuador, and Peru. Clean-up efforts in Lake Titicaca appear in both the Peru and Bolivia conversation.

COUNTRIES OF THE SOUTHERN CONE³⁴

Natural disasters and infrastructure problems leading to water shortages and cuts in major cities are predominant areas of discussion. The city of Santiago, Chile suffered major water cuts on February 26, 2017, and April 21, 2017, due to high turbidity in the Maipo River. Both dates generated the highest volume of mentions (excluding World Water Day) on digital media. In Paraguay, Asuncion and nearby neighborhoods suffered water cuts due to a shortage of electricity in a water treatment plant that supplies the area on January 21, 2017.

Government agencies and politicians notably use Twitter to announce ongoing projects and initiatives, especially in Argentina and Uruguay. In Argentina, government official accounts lead the conversation. In Uruguay, OSE (national utility) frequently communicates about infrastructure and other works in different areas of the country to improve services.

COUNTRIES OF CENTRAL AMERICA, HAITI AND THE DOMINICAN REPUBLIC³⁵

The devastation caused by Hurricanes Matthew, Otto, Irma, and Maria were the most discussed topics in Central America, particularly in Costa Rica, Haiti, and the Dominican Republic. Conversation about the hurricanes effects included water shortage, infrastructure damages, and provision of drinking water as part of relief efforts.

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³³ Bolivia, Colombia, Ecuador, Peru and Venezuela

³⁴ Argentina, Chile, Paraguay and Uruguay

³⁵ Belize, Costa Rica, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Panama and Dominican Republic

Conversation about sanitation, water resources management and solid waste management is increasing in this region. Solid waste management projects and initiatives were mentioned in the different countries, including Costa Rica, Dominican Republic, Guatemala. Discussion around sanitation was more prominent in Panama and Guatemala, as projects in the Panama Bay and Lake Amatitlan were announced.

COUNTRIES OF THE CARIBBEAN³⁶

Solid waste management is one of the most talked-about issues in the Caribbean and varies from country to country. In the Bahamas, mentions encourage people to take care of their waste during the hurricane season. In Jamaica, mentions refer to the government's initiatives and discussion around solid waste management, and in Trinidad and Tobago information about the country's solid waste production is highly shared.

MEXICO³⁷

The aftermath of the earthquake, which struck Mexico City on September 19, 2017, spurred a large share of the water conversation. The provision of drinking water as a part of relief efforts and distribution of water and food to the cities and regions affected by the earthquake were the most widely-discussed issues on social media, followed by the lack of drinking water in different areas. Heineken's initiative to can drinking water at its plant to help people affected by the earthquake received substantial attention. Moreover, conversation about water leaks, interruption, and restoration of water supply is prevalent, as well as mentions of government projects to expand water access and wastewater treatment plants.

BRAZIL

The results of a study from the Instituto Trata Brasil analyzing the state of water and sanitation services in the country generated one of the most prominent conversations, both in Twitter and national news. Mentions on the lack of basic sanitation services and public funding to improve these services are discussed on Twitter. In national news a tariff increase on water services and regulations to reduce the cost of water and sewerage services for low-income families generated conversations.

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³⁶ The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago

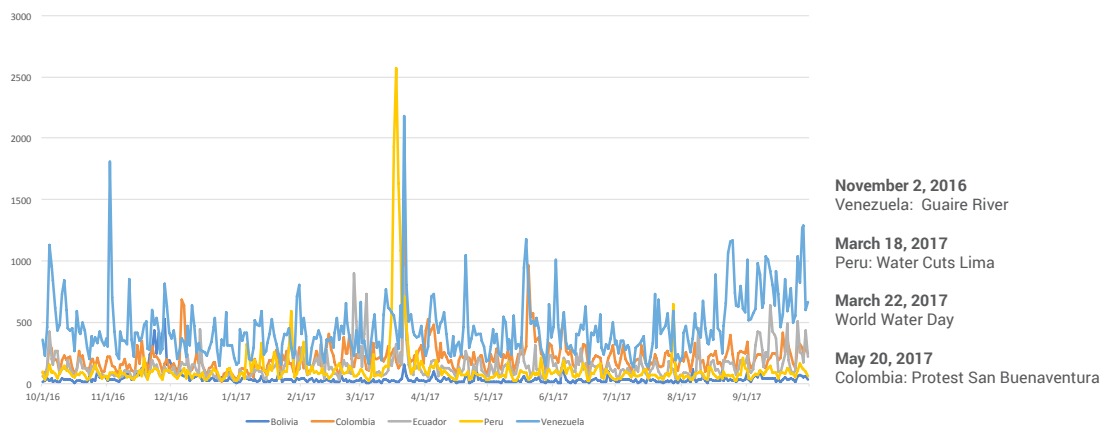
³⁷ Because of the size of the conversation, both Mexico and Brazil were analyzed separately.

COUNTRIES OF THE ANDEAN GROUP

BOLIVIA, COLOMBIA, ECUADOR, PERU AND VENEZUELA

KEY CONVERSATION POINTS:

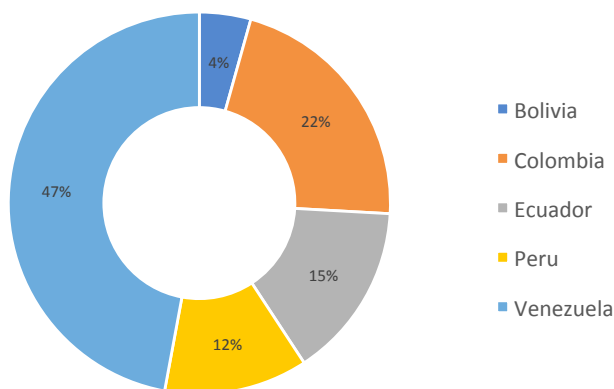
- **Bolivia:** Water shortage in the city of La Paz from mid-November to mid-December.
- **Colombia:** Solid waste and wastewater management, aftermath of earthquake in Mocoa.
- **Ecuador:** Construction and reconstruction of water infrastructure, solid waste management activities.
- **Peru:** Water cuts in Lima caused by floods and heavy rainfall, and Lake Titicaca sanitation efforts.
- **Venezuela:** Announcement of projects, cleaning of Lake Maracaibo and other water bodies.



[GRAPH 12] - TIMELINE OF COUNTRIES OF THE ANDEAN GROUP

WHO IS TALKING?

From the 351K Twitter and national news mentions analyzed, almost half came from Venezuela (47%), followed by Colombia (22%), Ecuador (15%), Peru (12%) and Bolivia (4%).



[GRAPH 13] - BREAKDOWN OF COUNTRIES OF THE ANDEAN GROUP

WHAT HAPPENED IN BOLIVIA?³⁸

Water shortage in the city of La Paz from mid-November to mid-December, consequence of a severe drought in the dams which supply the city, was the most talked topic on Twitter and news. Conversation on Twitter about this issue ranged from complaints about water shortages to government agencies providing information on location for water distribution points and calendar. Conversation on national news varied from articles explaining the drought and its effects on citizens and businesses.

#CuidemosElAgua | Vecinos de San Miguel se abastecen de agua en la avenida Montenegro

🐦 @CuidemosAguaBo (December 14, 2016)³⁹

(#let'stakecareofthewater | Residents of San Miguel getting water on the Montenegro Avenue - Translation)

Panificadores alertan escasez de pan en La Paz por el agua

📰 Erbol Digital (November 28, 2016)⁴⁰

(Bakers warn of bread shortage in La Paz due to water - Translation)

The causes and consequences of the Bolivian drought appeared in multiple international outlets, with articles pointing out to climate change and glaciers melting as one of the causes of the droughts.

Shrinking glaciers cause state-of-emergency drought in Bolivia

📰 The Guardian (November 28, 2016)⁴¹

38 Bolivia: 15,288 mentions

39 <https://twitter.com/CuidemosAguaBo/status/809149117876289536>

40 http://www.erbol.com.bo/noticia/social/28112016/panificadores_alertan_escasez_de_pan_en_la_paz_por_el_agua

41 <https://www.theguardian.com/environment/2016/nov/28/shrinking-glaciers-state-of-emergency-drought-bolivia>

'No puedo dejar de pensar en el agua': Bolivia enfrenta su peor sequía en décadas

 New York Times (December 2, 2016)⁴²

("I can't stop thinking about water": Bolivia faces its worst drought in decades - Translation)

The water shortage in Bolivia was also reflected in Google, where searches for the term "water" (agua) were related to "water rationing in La Paz", and "water scarcity." These searches peaked between November 20 and 26 2016.⁴³

Sanitation of the Lake Titicaca appeared on both Twitter and national news when the Bolivian government received a loan to finance the sanitation of the Lake.

Gobierno concreta préstamo de \$us77 millones para intentar salvar al Titicaca

 Erbol (October 27, 2017)⁴⁴

(Government signs US \$ 77 million loan to try to save Titicaca - Translation)

WHAT HAPPENED IN COLOMBIA? ⁴⁵

Solid waste and wastewater management were two of the most mentioned topics throughout the year, mentions came mostly from government accounts.

Entregamos certificados a 79 Gestores Ambientales en Manejo de Residuos Sólidos y en Manejo de Cuencas Hidrográficas (Convenio Gob- Sena)

 @AndresArturoF (30 September, 2017)⁴⁶

(We delivered certificates to 79 Environmental Managers in Solid Waste Management and Watershed Management (Gob-Sena Agreement)- Translation)

The landslide in Mocoa on April 1, 2017, was one of the most discussed issues in international media, the articles talked about the disaster aftermath and rescue efforts. The conversation on national news and Twitter immediately following the disaster focused on the lack of drinking water and continued throughout the period analyzed highlighting reconstruction efforts in Mocoa.

En junio toda Mocoa tendrá agua potable

 El Tiempo (May 2, 2017) ⁴⁷

(All of Mocoa will have potable water in June - Translation)

⁴² <https://www.nytimes.com/es/2016/12/02/no-puedo-dejar-de-pensar-en-el-agua-bolivia-enfrenta-su-peor-sequia-en-decadas/>

⁴³ Google Trends for water "agua" in Bolivia from 10/1/16 to 9/30/17 - <https://g.co/trends/koQYt>

⁴⁴ http://www.erbol.com.bo/noticia/politica/27102016/gobierno_concreta_prestamo_de_us77_millones_para_intentar_salvar_al_titicaca

⁴⁵ Colombia 75,700 Mentions

⁴⁶ <https://twitter.com/AndresArturoF/status/914234667498434560>

⁴⁷ <http://www.eltiempo.com/politica/gobierno/en-junio-toda-mocoa-tendra-agua-potable-segun-santos-83876>

Avanzan labores de rehabilitación de redes de agua potable en Mocoa <http://ift.tt/2qg0695> #Noticias

🐦 @radiosantafentc (28 April 2017)⁴⁸

(Progress made in efforts to restore drinking water in Mocoa <http://ift.tt/2qg0695> #News - Translation)

A proposal from the Colombian Party *Alianza Verde* to declare water as a human right became popular on Twitter making #WaterFundamentalRight (#AguaDerechoFundamental) one of the top used hashtags in the water conversation during the period studied. Conversation about the topic gained momentum first on November 15, 2017 when the Senate opened a discussion of the proposal and then in December 06, 2017 as the debate to discuss the law failed. The creation of Colombia's National Water Council, to coordinate intersectoral policies to produce a more sustainable consumption of water, on World Water Day 2017 was covered by national news.

Se hundió en 7mo debate el proyecto #AguaDerechoFundamental pero la reforma tributaria pasó el 1ro. ¿Y ahora quién podrá defendernos?

🐦 @Noridaoficial (December 6, 2016)⁴⁹

(The #Waterisafundamental right project sank in a 7-month debate but tax reform passed in the first round. Who will defend us now? - Translation)

Agua ya no será un derecho fundamental en Colombia

📰 El Espectador (December 07, 2017)⁵⁰

(Water will not be a fundamental right in Colombia - Translation)

Crean el Consejo Nacional del Agua

📰 El Informador (March 22, 2017)

([Colombian government] creates National Water Council - Translation)

Protests in the region of Buenaventura demanding potable water and health service during May 2017⁵¹ was a highly discussed topic on Twitter. Mentions included complaints and retweets of messages related to the ongoing events, making May 20 the day with the second-highest volume of water conversation in Colombia.⁵²

WHAT HAPPENED IN ECUADOR?⁵³

Potable water was one of the most mentioned topics on Twitter, with the conversation heavily focused on construction and reconstruction of water systems throughout the country. Most mentions came from government accounts.

48 <https://twitter.com/radiosantafentc/statuses/858045509055000576>

49 <https://twitter.com/Noridaoficial/status/806280028464025600>

50 <https://www.elspectador.com/noticias/politica/agua-ya-no-sera-un-derecho-fundamental-colombia-articulo-669332>

51 <http://www.eltiempo.com/colombia/cali/marcha-en-buenaventura-en-respaldo-al-paro-civico-90472>

52 <https://twitter.com/natiibedoya/statuses/865943390734692353>

53 Ecuador 52,291 Mentions

Inicio de trabajos del sistema de agua potable de la comunidad Albalá, para mejorar gestión del recurso hídrico. #ElAguaNosUne

🐦 @AguaEc (September 26, 2017)⁵⁴

(Work starts on the drinking water system of the Albalá community, to improve water resource management. #WaterBringUsTogether - Translate)

Solid waste management and recycling were topics discussed on both Twitter and national news. News articles focused on national and local governments' plans and strategies to manage waste, and efforts to raise awareness about the issue. References to activities organized by local governments, such as waste collection days, received multiple retweets.

El Tour de la Basura busca crear conciencia en la ciudadanía quiteña

📰 El Comercio (July 21, 2017)⁵⁵

(Garbage Tour seeks to raise awareness among Quito's citizens - Translation)

Concluye #AcciónPorElPlaneta en #PonceEnríquez: 336 voluntarios recorrieron 14,7 Km, limpieza en 7 ríos, 1178 kg de desechos sólidos recogidos

🐦 @Ambiente_Azuay (September 30, 2017)⁵⁶

(#ActionforthePlanet ends in #PonceEnríquez: 336 volunteers covered 14.7 km, cleaning 7 rivers, 1178 kg of solid waste collected - Translation)

Mentions of the Esmeraldas region appeared continuously throughout the year, making the hashtag #esmeraldas the second most popular after #water (#agua). These mentions were mostly about government initiatives in the region.

Agua potable será una realidad para #Esmeraldas » <http://bit.ly/2lebm26> #EntrevistaEsmeraldas

🐦 @ElCiudadano_ec (Febrero 26, 2017)⁵⁷

(Potable water will be a reality for #Esmeraldas - Translation)

WHAT HAPPENED IN PERU? ⁵⁸

Floods and heavy rainfall that occurred in March 2017 as a consequence of the coastal "El Niño" were extensively discussed in the media. Articles focused on the effects of climate change, reconstruction efforts, and highlighted the impact on child malnutrition due to lack of clean water and food.

54 <https://twitter.com/AguaEc/statuses/912679012245413889>

55 <http://www.elcomercio.com/actualidad/tour-basura-conciencia-ciudadania-quito.html>

56 https://twitter.com/Ambiente_Azuay/status/914231505232199680

57 https://twitter.com/ElCiudadano_ec/status/836041715190480896

58 Peru 42,728 Mentions

UNICEF: Peru floods leave thousands of children at risk

 Daily Mail (April 12, 2017)⁵⁹

Water cuts and shortages in Lima resulting from the floods - which led to landslides on the Rimac River and problems in the La Atarjea treatment plant - produced the highest conversation peak⁶⁰ on March 18, 2017. Mentions were tweets referencing Sedapal (water operator in Lima) distribution centers and efforts to restore water in the city.

"@Sedapal esta trabajando 24 horas al día para abastecer agua para Lima." @fzavalal

 @pcmperu (March 18, 2017)⁶¹

(Sedapal is working 24 hours a day to restore water in Lima - Translation)

@Sedapal actualiza lista de centros de abastecimiento de agua potable." bit.ly/1FL38Br #UnaSolaFuerza #SomosTodos

 @noticias_tcperu (March 18, 2017)⁶²

(Sedapal has updated the list of potable water supply stations - Translation)

Google searches for term water (agua) increased from March 12, 2017 to March 19, 2017, the related topic searches and queries for water were "Water scarcity" (escasez de agua), "SEDAPAL" and "water cuts 2017" (corte de agua 2017).⁶³ Showing that interest on water increases during times of scarcity.

Contamination of the Lake Titicaca was covered in international news highlighting the death of frogs as a consequence of pollution. On Twitter, the conversation focused on the Peruvian government announcement to open ten treatment plants to clean the lake.

Peru investigates death of 10,100 Titicaca water frogs

 BBC News (October 16, 2016)⁶⁴

Para la descontaminación del Titicaca se construirán 10 plantas de tratamiento de aguas residuales. Conoce más: <http://bit.ly/2yvGYqM>

 @pcmperu (September 28, 2017)⁶⁵

(10 wastewater treatment plants to be constructed for the decontamination of Titicaca. Learn more:) - Translation)

Announcements of government projects related to water and sanitation also appeared throughout the year, and civil society engaged mostly by retweeting the information.

59 <http://www.dailymail.co.uk/wires/ap/article-4406590/UNICEF-Peru-floods-leave-thousands-children-risk.html>

60 2585 mentions were identified on March 18, 2018 making it day with the most mentions in Peru and the region.

61 <https://twitter.com/pcmperu/status/843289979170279424>

62 https://twitter.com/noticias_tvperu/status/843112322730213377

63 Google Trends for water "agua" in Peru from 10/1/16 to 9/30/17 - <https://g.co/trends/L4ZYV>

64 <http://www.bbc.co.uk/news/world-latin-america-37686285>

65 <https://twitter.com/pcmperu/status/913518663604539392>

Hoy el agua potable llegó a Pachacútec tras 30 años de espera. 180 mil beneficiados de 135 AAHH de Pachacutec. Trabajemos juntos por el Perú.

🐦@ppkamigo (January 6, 2017)⁶⁶

(Today drinking water arrived in Pachacútec after 30 years of waiting. 180 thousand beneficiaries of 135 AAHH of Pachacutec. Let's work together for Peru - Translation)

WHAT HAPPENED IN VENEZUELA ?⁶⁷

The conversation on Twitter focused on government agencies and personnel and their announcements of different projects around sanitation, recollection of solid waste and drinking water supply.

Nuestro servicio de recolección de desechos sólidos estuvo atendiendo más de 11 comunidades de la parroquia Tocuyito #22Sep

🐦@AS_Libertador (September 22, 2017)⁶⁸

(Our solid waste collection service has been serving more than 11 communities in Tocuyito's parish # 22Sep - Translation)

A través de @Corpointur, participamos en jornadas de saneamiento ambiental, a propósito de la llegada de los carnavales #CaraboboEnMarcha

🐦@AmeliachPSUV (February 20, 2017)⁶⁹

(Through @Corpointur we are participating in environmental sanitation days, in preparation for the arrival of carnival #CaraboboMovesForward - Translation)

Sanitation of the Lake Maracaibo was discussed during October 2016 when a special commission was established. Twitter conversation also peaked on November 2, 2017, following overflowing of the Guaire River.

Effects of climate change on water supply was another heavily discussed topic, as citizens, organizations and media accounts shared an article about a research study which highlights how climate change can pollute water and significantly reduce water resources.

**Latigazo del clima: el agua potable será cada vez más escasa
goo.gl/KUbf9X?btz38=1403094030 ...**

🐦@DanielG4_88 (September 30, 2017)⁷⁰

(Whiplash of climate: the potable water will be increasingly scarce - Translation)

66 <https://twitter.com/ppkamigo/status/817396169982623745>

67 Venezuela 165,500 Mentions

68 https://twitter.com/AS_Libertador/status/911334682037510144

69 <https://twitter.com/AmeliachPSUV/status/833752936010362880>

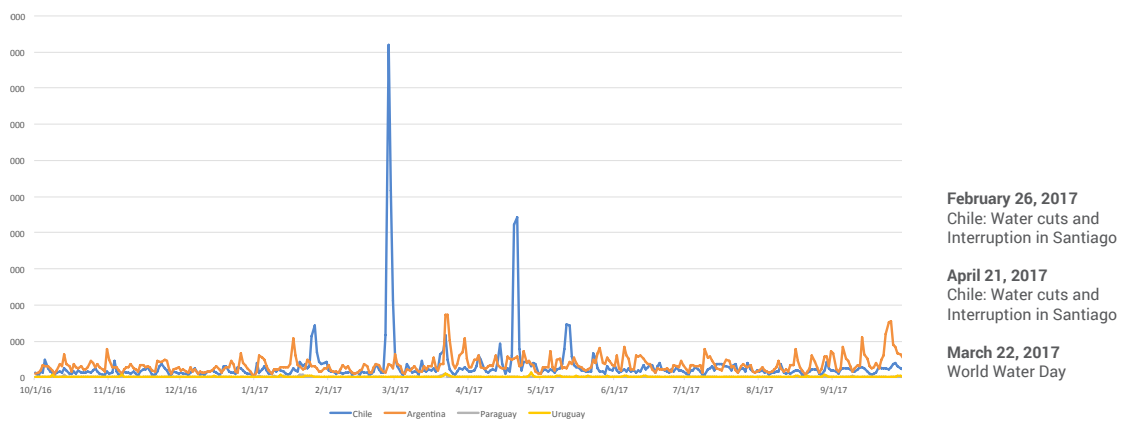
70 https://twitter.com/DanielG4_88/statuses/914129077832945666

COUNTRIES OF THE SOUTHERN CONE

ARGENTINA, CHILE, PARAGUAY AND URUGUAY

KEY CONVERSATION POINTS:

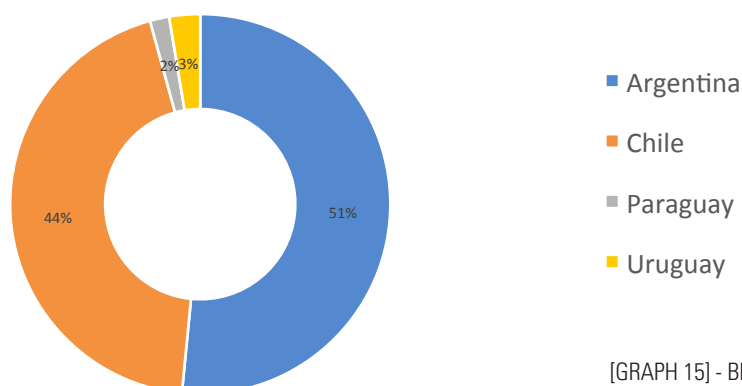
- **Argentina:** Announcements of projects and initiatives related to water and sanitation.
- **Chile:** Floods and mudslides affected water supply generating water cuts and shortage in major cities.
- **Paraguay:** Infrastructure problems led to water shortages in metropolitan areas.
- **Uruguay:** Announcements of government projects and initiatives, including ongoing infrastructure works.



[GRAPH 14] - TIMELINE OF COUNTRIES OF THE SOUTHERN CONE

WHO IS TALKING?

From the 251K Twitter and news mentions analyzed, over half came from Argentina (52%), followed by Chile (44%), Uruguay (3%), and Paraguay (2%).



[GRAPH 15] - BREAKDOWN OF THE SOUTHERN CONE

WHAT HAPPENED IN ARGENTINA?⁷¹

Water and sanitation were the most talked about topics in Argentina. The conversation was lead by government official accounts, and most of the tweets emphasized on sewers (“cloacas”) which was not a very prominent term used in other countries.

Estamos haciendo calles, veredas, plazas, obras de agua potable y cloacas en barrios de todo el país para que más argentinos vivan mejor.

🐦@frigeriorogelio (April 17, 2017)⁷²

(We are building streets, sidewalks, squares, drinking water projects and sewers in neighborhoods throughout the country so that more Argentines live better - Translation)

Throughout the year, government official accounts dominated the Twitter conversation, and citizens retweet their mentions. For instance, September 13, 2017, became the 4th day with the highest mentions as the government announced the delivery of a drinking water project in Santiago del Estero.

Finalizó obra para abastecer de agua potable a más de 15 mil vecinos de #SantiagodelEstero #PlanDelAgua

🐦@MinInteriorAR (September 13, 2017)⁷³

(Work to supply drinking water to more than 15 thousand residents of #SantiagodelEstero #WaterPlan is completed - Translation)

The hashtag #WaterPlan (#PlandeAgua) was the second most used hashtag followed by #water (#agua), it was used by government agencies and government official tweets.

Estamos trabajando juntos para llevar agua potable a los 80 mil vecinos de #CaletaOlivia #PlanDelAgua

🐦@pberecia (September 15, 2017)⁷⁴

(We are working together to bring potable water to 80 thousand neighbors of #CaletaOlivia #WaterPlan - Translation)

WHAT HAPPENED IN CHILE?⁷⁵

Santiago suffered mayor water cuts on February 26, 2017 and April 21, 2017 due to high turbidity in the Maipo River - the main source of drinking water for the city. News about Aguas Andinas announcements to cut water and service updates and supply schedules dominated the conversation making both

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71 Argentina: 128,226 Mentions

72 <https://twitter.com/frigeriorogelio/statuses/854070059806937088>

73 <https://twitter.com/MinInteriorAR/status/908099206644150273>

74 <https://twitter.com/pberecia/statuses/908796872529268736>

75 Chile: 109,960 Mentions

dates the days with most mentions in the Southern Cone. The conversation about the water interruptions also pointed out cancellation of schools and work activities due to the cuts. The hashtags #aguasandinas and #cortedeagua became the top used hashtag during the timeframe analyzed.

Aguas Andinas informó que paralizó sus plantas de agua potable por altas turbiedades en el Río Maipo.

🐦 @aguas_andinas (February 26, 2017)⁷⁶

(Aguas Andinas reported that its drinking water plants have been halted due to high turbidity in the Maipo River - Translation)

URGENTE: Aguas Andinas anuncia masivo corte de agua potable en Santiago y se suspenden las clases de la RM <http://www.elinformadorchile.com/2017/04/urgente-aguas-andinas-anuncia-masivo.html?sref=tw> ...

🐦 @ALERTADESISMO (April 20, 2017)⁷⁷

(URGENT: Aguas Andinas announces massive drinking water cut in Santiago and classes in the [Metropolitan Region] are suspended - Translation)

News about Chile's flood affecting the Maipo Rivers spread beyond twitter appearing in different international and national media outlets.

Flooding Leaves Millions Without Water in Santiago, Chile

📰 New York Times (February 27, 2017)⁷⁸

Confirman corte de agua potable en 27 comunas de Santiago

📰 La Hora (April 21, 2017)⁷⁹

(Confirmed cut of drinking water in 27 communes of Santiago - Translation)

The water cuts were also reflected in Google Searches, which peaked on both February 26, 2017 and April 16-22,⁸⁰ and the queries related with the term were “water cuts 2017” or “aguas andinas water cuts 2017” (corte de agua 2017, aguas andinas corte de agua 2017).

On national news, there was also discussion about the water sector reform (Código de Aguas) to include access to drinking water and sanitation, and preservation of ecosystems as human rights.

Esta semana prosigue discusión de Reformas al Código de Aguas

📰 El Heraldo (April 07, 2017)⁸¹

(This week the discussion continues on Reforms to the Water Code - Translation)

Other topics that appeared on the conversation, but were less popular, were water cuts in the region of Copiapó as well as mentions to rural water systems.

76 https://twitter.com/aguas_andinas/status/836042041855463424

77 <https://twitter.com/ALERTADESISMO/status/855217048326111232>

78 <https://www.nytimes.com/2017/02/27/world/americas/santiago-chile-flooding-mudslides.html>

79 <http://www.lahora.cl/2017/04/confirman-corte-agua-potable-27-comunas-santiago/>

80 Google Trends for water “agua” in Chile from 10/1/16 to 9/30/17 - <https://g.co/trends/eteGY>

81 <http://www.diarioelheraldo.cl/noticia/esta-semana-prosigue-discusion-de-reformas-al-codigo-de-aguas>

Realizarán corte programado de suministro de agua potable en Copiapó | <http://www.nostalgica.cl/realizaran-corte-programado-de-suministro-de-agua-potable-en-copiapo-3/> ...

🐦 @RADIONOSTALGICA (September 27, 2017)⁸²

(Scheduled cut of drinking water supply in Copiapó - Translation)

#Antofagasta Invertirán \$330 millones en mejoras al sistema de agua potable rural <http://www.mercuriocalama.cl/impresa/2017/09/14/full/cuerpo-principal/6/> ...

🐦 @alegriagonzaa (September 14, 2017)⁸³

(#Antofagasta will invest \$ 330 million in improvements to the rural potable water system - Translation)

WHAT HAPPENED IN PARAGUAY?⁸⁴

Asuncion and nearby neighborhoods suffered water cuts due to a shortage of electricity in a water treatment plant that supplies the area. The Twitter conversation significantly increased on January 21, 2017 when Asuncion suffered the largest water shortage

Otra vez faltará agua

📰 ABC Color (January 21, 2017)⁸⁵

(Again without water - Translation)

En comunicación con el Arq. Ludovico Sarubbi - Presidente de #Essap sobre corte en suministro de agua potable por falta de energía eléctrica

🐦 @780AM (6 Jan 2017)⁸⁶

(In communication with Architect. Ludovico Sarubbi - President of #Essap on cutting of drinking water supply due to lack of electricity - Translation)

Paraguay's water sanitation company Essap was mentioned throughout the year on Twitter by government, media, and civil society. Mentions from the government were around ongoing projects to extend the water network in the country, and water cuts announcement. Mentions from media accounts ranged from water cuts to project updates, and civil society either shared announcements or voiced their complaints about the service or lack thereof.

@EssapSA amplia sistema de agua potable en Coronel Bogado.

🐦 @AlcidesBaez74 (September 28, 2017)⁸⁷

(@EssapSA broadens drinking water system in Coronel Bogado -Translation)

⁸² <https://twitter.com/RADIONOSTALGICA/statuses/912768391391453185>

⁸³ <https://twitter.com/alegriagonzaa/statuses/908437701829021697>

⁸⁴ Paraguay: 4075 mentions

⁸⁵ <http://www.abc.com.py/nacionales/otra-vez-faltara-agua-1557996.html>

⁸⁶ https://twitter.com/780AM/status/817306958336237568?ref_src=twsrc%5Etfw&ref_url=https%3A%2F%2Fapp.brandwatch.com%2Fproject%2F1998175598%2Fdashboards%2F338118

⁸⁷ <https://twitter.com/AlcidesBaez74/statuses/913476056161640449>

**@EssapSA a q hora van a reponer el servicio de agua potable?
El corte era x 2 hs nomas desde las 11**

🐦 @MariaSilviaGon7 (August 1, 2017)⁸⁸

(@EssapSA at what time will the drinking water services be restored? The cut was for only 2 hours from 11 - Translation)

WHAT HAPPENED IN URUGUAY?⁸⁹

Announcements of sanitation projects in different areas in the country, and street closings due to water infrastructure works in Montevideo drove the conversation on Twitter. Most tweets mentioned Uruguay's national utility (@OSE_Uruguay) works on sanitation.

CORTE TOTAL DE CALLE

**Cno. Maldonado entre Ombú y Peteroa (senda hacia el Este)
Se ejecutarán obras de saneamiento a partir de las 7hs.**

🐦 @imtransito (August 28,2017)⁹⁰

(TOTAL STREET CUT Cno. Maldonado between Ombu and Peteroa (path to the East)
Sanitation works will be carried out from 7 am. - Translation)

**#Ahora en San Ramón, el Directorio de OSE firma contratos de
obras de saneamiento que beneficiarán a 7200 habitantes.**

🐦 @DrGersonVila (August 17, 2017)⁹¹

(#Now in San Ramón, the OSE Board of Directors signs sanitation works contracts that will benefit 7200 inhabitants - Translation)

---

88 <https://twitter.com/MariaSilviaGon7/statuses/892502754891108352>

89 Uruguay: 6,513 Mentions

90 <https://twitter.com/imtransito/status/902103322508881920>

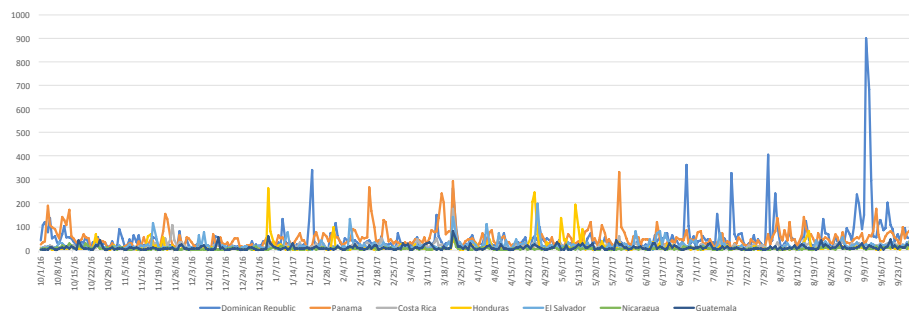
91 <https://twitter.com/DrGersonVila/status/898294672912564224>

COUNTRIES OF CENTRAL AMERICA, HAITI AND DOMINICAN REPUBLIC

BELIZE⁹², COSTA RICA, DOMINICAN REPUBLIC, EL SALVADOR, GUATEMALA, HAITI, HONDURAS, NICARAGUA, PANAMA

KEY CONVERSATION POINTS:

- **Costa Rica**: Damage caused by Hurricane Otto and solid waste management.
- **Dominican Republic**: Government projects aiming to improve solid waste management, and effects of Hurricane Irma and Maria.
- **El Salvador**: Inauguration of water wells and water service cuts.
- **Guatemala**: Government projects to install wastewater treatment plants and sanitation of the Lake Amatitlan.
- **Haiti**: Hurricane Matthew aftermath, relief efforts and fight against waterborne diseases.
- **Honduras**: Government plans and initiatives.
- **Nicaragua**: Government initiatives, rivers drying up, and drainage system collapsing
- **Panama**: Sanitation of the Panama Bay and other regions.



GRAPH 16] - TIMELINE OF CENTRAL AMERICAN COUNTRIES, HAITI AND DOMINICAN REPUBLIC

September 10, 2017
Dominican Republic:
Presidency account
Tweet

January 22, 2017
Dominican Republic:
President visit Las
Cañitas and Enriquillo

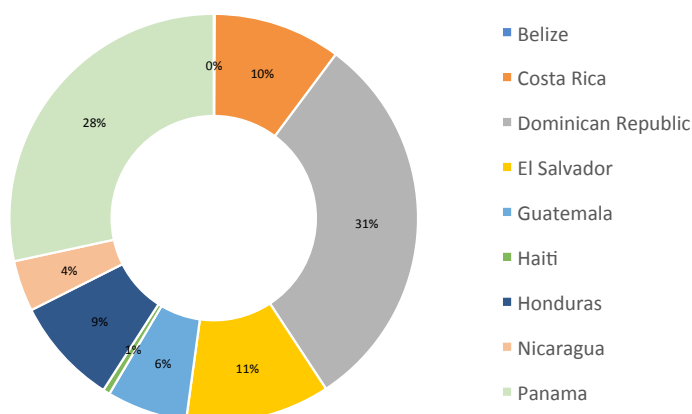
May 30, 2017
Panama: Announcement
of the construction of a
Water Treatment Plant

January 4, 2017
Honduras: Inauguration
of Government Projects
in Honduras

WHO IS TALKING?

From the 63K Twitter and news mentions analyzed, most mentions came from the Dominican Republic (31%) followed by Panama (28%), El Salvador (11%), Costa Rica (10%), Honduras (8%), Guatemala (6%), Nicaragua (4%), Haiti (1%) and Belize (less than 1%).

⁹² 92 Tweets and news from Belize were analyzed, however the amount of mentions were not enough to produce findings.



[GRAPH 17] - BREAKDOWN OF CENTRAL AMERICAN COUNTRIES, HAITI AND DOMINICAN REPUBLIC

WHAT HAPPENED IN COSTA RICA? ⁹³

Hurricane Otto hit the communities of Bagaces and Upala causing significant damage in these areas and other parts of the country. The conversation on Twitter covered various topics including announcements of water shortages in different regions, government efforts to reestablish water services and calls to provide and donate drinking water.

#UH: Cruz Roja alerta que cabeza de agua bajaría al sector de Upala en 10 minutos. Más información en vivo en este momento #OttoCR

@telenoticias7 (November 25, 2017)⁹⁴

(#UH: Red Cross warns water would go down to the Upala sector in 10 minutes. More live information at this moment #OttoCR - Translation)

Costa Rica announces state of emergency as Hurricane Otto heads towards coast

International Business Times (November 24, 2017)⁹⁵

There is an emerging discussion on solid waste management and recycling coming from governmental organizations and individuals. Part of the conversation focused on local governments actions to treat solid waste, and the importance of solid waste management, and recycling.

Gobiernos locales y BID buscan mejorar uso de residuos sólidos

@La_Republica (March 14, 2017) ^{96 97}

(Local Governments and IDB seek to improve the use of solid waste- Translation)

⁹³ Costa Rica: 6,348 mentions

⁹⁴ https://twitter.com/telenoticias7/status/802205897514688512?ref_src=twsrc%5Etfw&ref_url=https%3A%2F%2Fapp.brandwatch.com%2Fproject%2F1998175598%2Fdashboards%2F338091

⁹⁵ <http://www.ibtimes.co.uk/costa-rica-announces-state-emergency-hurricane-otto-heads-towards-coast-1593143>

⁹⁶ <https://www.larepublica.net/noticia/gobiernos-locales-y-bid-buscan-mejorar-uso-de-residuos-solidos>

⁹⁷ <https://www.ibtimes.co.uk/costa-rica-announces-state-emergency-hurricane-otto-heads-towards-coast-1593143>

Parque Nacional Manuel Antonio cuenta con nuevo sistema de tratamiento de aguas residuales

 Nacion (May 30, 2017)⁹⁸

(Manuel Antonio National Park has a new wastewater treatment system - Translation)

WHAT HAPPENED IN THE DOMINICAN REPUBLIC? ⁹⁹

Mentions of water and sanitation appeared connected to a larger discussion on quality life, as most government accounts' tweets highlighted the relationship of providing water to improve quality of life.

Suministrando agua potable de la más alta calidad @CORAASAN mejora la calidad de vida de los habitantes de Santiago #SilvioDuranTrabaja

 @MGomezBoitel (August 4, 2017)¹⁰⁰

(Providing drinking water of the highest quality @CORAASAN improves the quality of life of the inhabitants of Santiago #SilvioDuranWorks - Translation)

Solid waste also was one the most talked-about issues on Twitter with the conversation focusing on solid waste management, especially in the area of Duquesa. The discussion emerged as a commission formed by the Ministry of Environment, Public Health and City Hall of Santo Domingo Norte took control of Duquesas dump.

Pasamos a una nueva etapa en el modelo de intervención en #Duquesa y avanzar hacia una solución definitiva al tema de los residuos sólidos <https://twitter.com/ambienterd/status/913088874683011073> ...

 @DominguezBrito (September 27, 2017)¹⁰¹

(We move to a new stage in the model of intervention in #Duquesa and move towards a definitive solution to the issue of solid waste - Translation)

On World Water Day 2017 the civic movement “Participación Ciudadana” generated conversation as it advocated for a “Water Law” to protect water resources and promote sustainable use of the water.

Participación Ciudadana afirma Ley de Aguas debe ser prioridad nacional

 El Caribe (March 22, 2017) ¹⁰²

(Citizen participation affirms Water Law should be a national priority - Translation)

98 <https://www.nacion.com/ciencia/medio-ambiente/parque-nacional-manuel-antonio-cuenta-con-nuevo-sistema-de-tratamiento-de-aguas-residuales/VQXBA6Q2MFBS3IEYEHE4LZGDCY/story/>

99 Dominican Republic: 19,167 Mentions

100 <https://twitter.com/MGomezBoitel/status/893511878101667840/photo/1>

101 <https://twitter.com/DominguezBrito/status/913099606984151040>

102 <http://www.elcaribe.com.do/2017/03/22/participacion-ciudadana-afirma-ley-aguas-debe-ser-prioridad-nacional/>

Water services affected by Hurricanes Irma and Maria as well as waterborne disease prevention were discussed mostly on the national news.

R.Dominicana cifra en 3,000 millones daños a infraestructuras por María

 Al momento (September 29, 2017) ¹⁰³

(DR figures in 3 000 million damages to infrastructure by María- Translation)

WHAT HAPPENED IN EL SALVADOR? ¹⁰⁴

Information and tweets announcing government projects and initiatives were shared throughout the year on Twitter. For instance, on April 26, 2017, the inauguration of a drinking water well in Las Cañas became the day with the most mentions in the country as people retweeted a message from the official Twitter account of the Presidency (@presidencia_sv).

Presidente @sanchezceren inaugura pozos que abastecerán agua a más de 35 mil familias de Apopa #GobSV

 @presidencia_sv (April 26, 2017) ¹⁰⁵

(President @sanchezceren inaugurates wells that supply water to more than 35 thousand families in Apopa #GobSV- Translation)

Water cuts and interruptions were another discussed topic making the hashtag #AlertaSV the most popular during the time analyzed. The hashtag was used by Alértux El Salvador (@alertux) to send alerts through the year.

**#AlertaSV ¡Urgente! 25 días sin servicio de agua potable en Col. Vista Hermosa, S.S.
Gracias a @CercEnrique Cc. @anda_oficial**

 @alertux (September 29, 2017) ¹⁰⁶

(#AlertSV Urgent! 25 days without drinking water service in Col. Vista Hermosa, S.S. Thanks to @CercEnrique cc. @anda_oficial - Translation)

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103 <http://almomento.net/r-dominicana-cifra-en-3000-millones-danos-a-infraestructuras-por-maria/>

104 El Salvador: 7,172 Mentions

105 https://twitter.com/presidencia_sv/status/857429043976822784

106 <https://twitter.com/alertux/statuses/913402157017260032>

WHAT HAPPENED IN GUATEMALA? ¹⁰⁷

Information about water services and development of government projects to install wastewater treatment plants in the country were the most talked topics, especially on Twitter. National news emphasized government plans for environmental management and waste treatment in their coverage.

@drjafethcabrera mencionó el trabajo en conjunto con el @marngt para habilitar plantas de tratamiento de aguas residuales en el país.

🐦@marngt (June 16, 2017)¹⁰⁸

(@drjafethcabrera mentioned the work in conjunction with the @marngt to enable wastewater treatment plants in the country- Translation)

Mentions of sanitation and cleaning of Lake Amatitlan increased on August 1, 2017, when the lake filled with large amounts of solid waste following rain. This incident generated conversation particularly on Twitter where media outlets reported the problem and the estimated amount of waste.

lluvia del 30 de julio ingresaron al lago de #Amatitlán 900 metros cúbicos de desechos sólidos que ya se están Extrayendo por #AMSA

🐦@PampichiNews (August 1, 2017) ¹⁰⁹

([Following] rain on July 30, 900 cubic meters of solid waste entered the lake of #Amatitlán, which is being extracted by #AMSA - Translation)

WHAT HAPPENED IN HONDURAS? ¹¹⁰

Government initiatives and projects in the region of Valladolid received significant attention making January 4, 2017, the day with the most mentions primarily consisting in retweets of a Radio America HN tweet announcing the project.

Presidente @JuanOrlandoH inauguró este día proyectos de pavimentación, agua potable y alcantarillado en el municipio de Valladolid, #Lempira

🐦@radioamericahn (January 4, 2018)¹¹¹

(Today President @JuanOrlandoH inaugurated projects for paving, drinking water and sewerage in the municipality of Valladolid, #Lempira - Translation)

107 Guatemala: 3996 mentions

108 <https://twitter.com/marngt/status/875756021431586816>

109 <https://twitter.com/PampichiNews/status/892415616535212036>

110 Honduras: 5324 mentions

111 <https://twitter.com/radioamericahn/status/816839452093976576>

The launch of the Presidential plan to foster management of natural resources “Plan de Manejo de Agua Bosque y Suelo”¹¹² on April 24, 2017, received multiple mentions and retweets on Twitter. Mentions and retweets related to plans launch continued on April 25, 2017 making it the day with the second-highest number of mentions.

¡Lanzamos Plan de Manejo de Agua, Suelo y Bosque, complementario con el Programa Honduras 20/20 y el Plan de Manejo de Seguridad y Defensa!!

🐦 @JuanOrlandoH (April 24, 2017)¹¹³

(We launched a Water, Soil and Forest Management Plan, complementary to the Honduras 20/20 Program and the Security and Defense Management Plan !!- Translation)

HAITI¹¹⁴

Most of the conversation centered around Hurricane Matthew which occurred between September 28, 2016 and October 10, 2016. The Hurricane’s aftermath and destruction of the island generated discussion on both news and Twitter.¹¹⁵ On Twitter, information about humanitarian aid efforts was the most mentioned issue. The news, particularly international news, focused on the post-storm effects, relief efforts and humanitarian aid.

Food, water & sanitation kits are ready to be distributed to the people living in the hardest-hit areas. #HurricaneMatthew #MatthewHaiti

🐦 @CeliaMilord (October 8, 2016)¹¹⁶

Efforts to fight against the cholera outbreak after the 2010 Earthquake appeared in both national and international news. Most articles around this issue focused on the ongoing vaccination program and projects in the country to improve sanitation and prevent further spread of the disease.

Haiti - Cholera : More than 729,000 people vaccinated

📰 HaitiLibre (November 28, 2016)¹¹⁷

Haiti: UN inaugurates water supply system in Lascahobas as part of anti-cholera fight

📰 UN News (April 17, 2017)¹¹⁸

¹¹² <http://tnh.gob.hn/plan-maestro-de-agua-bosque-y-suelo-es-unico-y-sera-referente-en-la-region/>

¹¹³ <https://twitter.com/JuanOrlandoH/status/856636830447546369/photo/1>

¹¹⁴ Haiti: 347 mentions only in English. French and Creole platforms were not included in this analysis.

¹¹⁵ Twitter mentions were limited to English and Spanish

¹¹⁶ <https://twitter.com/CeliaMilord/status/784816998475636736>

¹¹⁷ <http://www.haitilibre.com/en/news-19365-haiti-cholera-more-than-729-000-people-vaccinated.html>

¹¹⁸ https://news.un.org/en/story/2017/04/555472-haiti-un-inaugurates-water-supply-system-lascahobas-part-anti-cholera-fight#.WPVFpm8_Tbw.twitter

Discussion about Hurricane Irma passing through Haiti appeared on the news. However, the extent of conversation was not near the coverage received during Hurricane Matthew.

Hurricane Irma could be devastating for Haiti, still reeling from Hurricane Matthew

 Global News (September 6, 2017)¹¹⁹

WHAT HAPPENED IN NICARAGUA? ¹²⁰

Announcements about ongoing water projects were shared throughout the period analyzed, making it one of the most discussed topics on Twitter. Most mentions referred to the national water utility (ENACAL) projects.

ENACAL avanza en la accesibilidad de proyectos de agua y saneamiento. Ver más: <http://goo.gl/NWq2Uo>

 @canaltn8 (September 6, 2017)¹²¹

(ENACAL advances in the accessibility of water and sanitation projects - Translation)

Information about the drying up of 100 Nicaraguan rivers which are the main water supply for many Nicaraguan families, became one of the top stories on Twitter as people retweet the information on October 13, 2016.

En 10 años se han secado más de 100 ríos y hay unas 51.527 familias en Nic, que se abastecen de fuentes de agua en vulnerabilidad.

 @MisionBOSAWAS (October 13, 2016) ¹²²

(In 10 years, more than 100 rivers have dried up and there are 51,527 families in Nic, who receive water from vulnerable sources.- Translation)

In national news one of the top stories shared was about Managua's drainage system collapsing as authorities recognized that the system had not been maintained in the last decades.

Drenaje pluvial de Managua colapsó hace medio siglo

 La Prensa (January 1, 2017) ¹²³

(Managua pluvial drainage collapsed half a century ago - Translation)

¹¹⁹ <https://globalnews.ca/news/3722738/hurricane-irma-haiti-hurricane-matthew/>

¹²⁰ Nicaragua: 2,538 mentions

¹²¹ <https://twitter.com/canaltn8/statuses/905559851509669888>

¹²² <https://twitter.com/MisionBOSAWAS/status/786592332007153664>

¹²³ <https://www.laprensa.com.ni/2017/10/01/nacionales/2306202-drenaje-pluvial-de-managua-colapso-hace-medio-siglo>

WHAT HAPPENED IN PANAMA? ¹²⁴

Sanitation of the Panama Bay was one of the most mentioned topics on Twitter and national news. National news talked about the project's financing; and Twitter users discussed project updates and development. Sanitation of the Bay was also reflected on Google searches, search queries related to the term sanitation (saneamiento) were related with Sanitation of the Panama Bay ("Saneamiento de la Bahía de Panamá.")¹²⁵

Conoce los avances del proyecto de Saneamiento de la bahía de Panamá. <http://ln.is/tucomunidad.com.pa/2/bdtsq...>

Vía @tucomunidadpa @SaneamientoPma

🐦@SFNewsPanama (April 8 2017)¹²⁶

(Learn about advances of the Sanitation Project in the Bay of Panama. - Translation)

Sanitation projects including sewage and potable water systems in other regions of the country were heavily mentioned by President Juan Carlos Varela, making the hashtag #sanidadbásica (#basicsanitation) one of the most popular.

Nueva red de alcantarillado, acueducto y planta de tratamiento de aguas residuales para Macaracas. #SanidadBásica <http://bit.ly/2hfhMQQ>

🐦@PresidenciaPma (September 19, 2017)¹²⁷

(New sewage network, aqueduct and sewage treatment plant for Macaracas - Translation)

News about lack of potable water increased as the water treatment plant of Changuinola suffered damages to its electric system, consequence of heavy rains in the country.

700 mil personas sin agua potable durante últimas dos semanas

🐦Panama America (October 13, 2017)¹²⁸

(700 thousand people without drinking water during last two weeks - Translation)

---

¹²⁴ Panama: 17,815 Mentions

¹²⁵ Google Trends for water and sanitation "agua", "saneamiento" in Panama from 10/1/16 to 9/30/17 - <https://g.co/trends/8djRC>

¹²⁶ <https://twitter.com/SFNewsPanama/statuses/850789135266848768>

¹²⁷ <https://twitter.com/PresidenciaPma/status/910237562089873409>

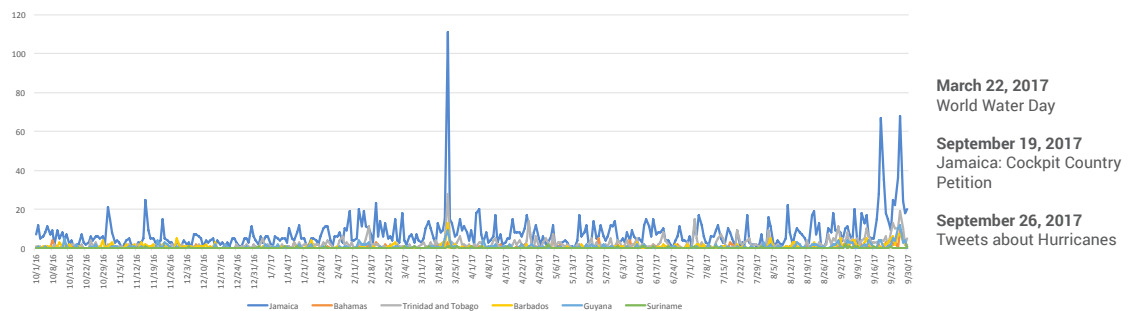
¹²⁸ <http://www.panamaamerica.com.pa/nacion/700-mil-personas-sin-agua-potable-durante-ultimas-dos-semanas-1046580>

COUNTRIES OF THE CARIBBEAN

BAHAMAS, BARBADOS, GUYANA, JAMAICA, SURINAME, TRINIDAD AND TOBAGO

KEY CONVERSATION POINTS:

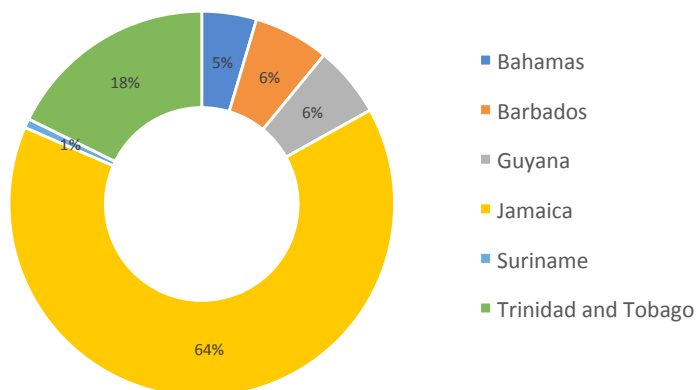
➔ **Jamaica, Trinidad and Tobago and Bahamas: Solid waste management information**



[GRAPH 18] - TIMELINE OF THE COUNTRIES OF THE CARIBBEAN

WHO IS TALKING?

From the 4287 Twitter and news mentions analyzed, over half came from Jamaica (65%), followed by Trinidad and Tobago (18%), Guyana (6%), Barbados (6%), Bahamas (5%) and Suriname (1%)



[GRAPH 19] - BREAKDOWN OF COUNTRIES OF THE CARIBBEAN

WHAT HAPPENED?

Solid waste management was one of the most discussed issues in the region. In Trinidad and Tobago, a video produced by “Foodie Nation,” mentioning that Trinidad and Tobago is the highest producer of solid waste per capita was one of the most popular tweets in the country. In Jamaica, mentions referred to government officials discussing solid waste management and initiatives to deliver trucks to the National Solid Waste Management Authority. In the Bahamas, mentions encouraged people to take care of their waste during the hurricane season.

T&T ranks as the highest producer of solid waste (per capita) by the World Bank. #TrinidadandTobago #flooding

🐦 @foodienationtt (July 3, 2017)¹²⁹

Participating in the @Nationwideradio solid waste management discussion. #NuhDuttyUpJamaica #Kingston #KleanKingston

🐦 @MayorWilliamsJA (July 25, 2017)¹³⁰

Its officially hurricane season! Here are some tips to manage your solid waste before during and after a storm. <http://fb.me/216gj0ZBz>

🐦 @BahamasWaste (June 1, 2017)¹³¹

An online petition to ban mining in the Cockpit Country, became the most popular tweet during the time analyzed. Jamaica’s Prime Minister declared the Cockpit Country a Protected Area.¹³²

How mining in the Cockpit Country will affect the water supply. SIGN DI PETITION PLEASE! [http://opm.gov.jm/participate/jamaica-house-petition/sign-petition/?pet=18 ...](http://opm.gov.jm/participate/jamaica-house-petition/sign-petition/?pet=18...) [6480/15000]

🐦 @KSBoswell (September 22, 2017)¹³³

PM Declares No Mining Will Be Permitted In Cockpit Country Protected Area

📰 Jamaica Gleaner (November 21, 2017)¹³⁴

Jamaica’s water utility used Twitter to announce water cuts multiple times. The cuts were due to power outages affecting the water supply, making the #NWCServiceDisruption¹³⁵ one the most popular hashtags during the time analyzed.

#FYI | Power outage to affect water supply to some Westmoreland customers today. <http://fb.me/TLF90xl6>

🐦 @NWCjam (July 18, 2017)¹³⁶

¹²⁹ <https://twitter.com/foodienationtt/status/881952648844455936>

¹³⁰ <https://twitter.com/MayorWilliamsJA/status/889979047794671616>

¹³¹ <https://twitter.com/BahamasWaste/statuses/870278847912042496>

¹³² <http://jamaica-gleaner.com/article/news/20171121/pm-declares-no-mining-will-be-permitted-cockpit-country-protected-area>

¹³³ <https://twitter.com/KSBoswell/status/909807838616342528>

¹³⁴ <http://jamaica-gleaner.com/article/news/20171121/pm-declares-no-mining-will-be-permitted-cockpit-country-protected-area>

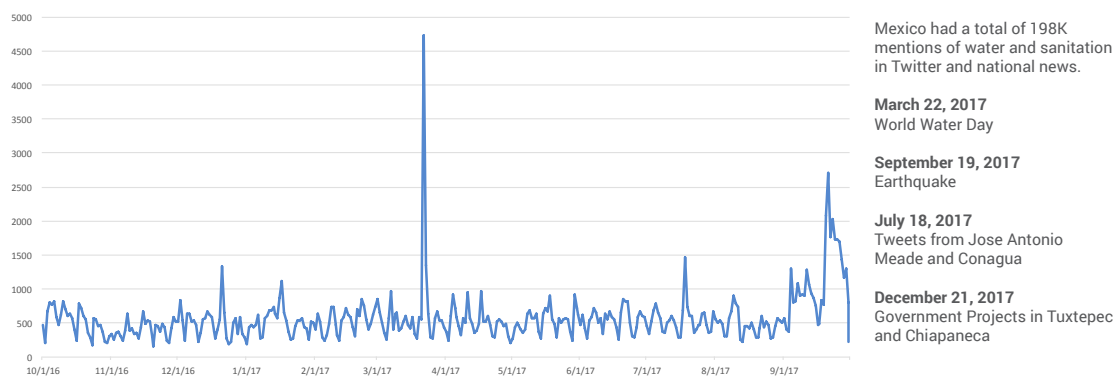
¹³⁵ <https://twitter.com/search?q=%23NWCServiceDisruption>

¹³⁶ <https://twitter.com/NWCjam/statuses/887309430030839808>

MEXICO

KEY CONVERSATION POINTS IN MEXICO:

- ➔ Effects and aftermath of September 2017 earthquake.
- ➔ Water services including leaks, interruption and water supply.
- ➔ Government projects to expand water access and build wastewater treatment plants.



[GRAPH 20] - MEXICO TIMELINE

WHAT HAPPENED IN MEXICO? ¹³⁷

On September 19, 2017, a 7.1 magnitude earthquake struck Mexico City, causing widespread damage in the states of Puebla and Morales and the greater Mexico City area. Conversation about water started to grow on September 19, peaking on September 21. In the period from September 19 to September 30, the water conversation represented 9.7% of the total water conversation in Mexico in the period analyzed.¹³⁸

One of the most mentioned topics on Twitter during this period was Heineken's announcement on September 21 about using its Mexican plant to produce drinking water to help people affected by the earthquake. Most individuals engaged in the conversation by retweeting the announcement and shared the news, and a handful of individuals expressed their satisfaction with the company by using emojis such as: 🍺❤️👍

¹³⁷ Mexico: 197,505 Mentions

¹³⁸ 19,224 mentions appeared from during September 19 to September 30th. The total mentions from October 01, 2016 to September 30, 2017 were 197,505 mentions

Heineken México transforma su planta cervecera y enlata agua potable para ayudar a afectados <http://bit.ly/2xgTQEA>

🐦@SinEmbargoMX (September 21, 2017) ¹³⁹

(Heineken Mexico transforms its brewing plant to can drinking water to help people affected [by the earthquake] <http://bit.ly/2xgTQEA> - Translation)

@Heineken_MX transformó su planta cervecera y enlata agua potable para ayudar a afectados. 🍻❤️💧 #FelizJueves

🐦@JuanpaQuijano (September 21, 2017) ¹⁴⁰

(@Heineken_MX transformed its brewing plant and cans clean drinking water to help affected people.
#HappyThursday - Translation)

Distribution of water and food to the cities and regions affected by the earthquake was the second most talked-about issue, followed by tweets about the lack of drinking water in different areas. Google searches for water (agua) from September 19 to September 30 showed that people demonstrated concern for the areas of Iztapalapa and Tlahuac. ¹⁴¹ Mentions to Iztapalapa and Tlahuac also appeared on news and Twitter, highlighting the destruction, lack of potable water and reconstruction efforts.

Durante la etapa de emergencia en #Chiapas, @Liconsa ha distribuido 118 mil litros de agua potable.

🐦@SEDESOL_mx (September 20, 2017) ¹⁴²

(During the emergency phase in #Chiapas, @Liconsa has distributed 118 thousand liters of drinking water - Translation)

Aside from the conversation around the earthquake, water was discussed in the context of leaks, supply, and restoration of water services throughout the year.

Fuga de agua potable en Periférico y Carretera Picacho Ajusco, al exterior de la Secretaría del Trabajo. @miransaa <http://bit.ly/2uvonwM>

🐦@Excelsior (July 18, 2017) ¹⁴³

(Leakage of drinking water in Periférico and Carretera Picacho Ajusco, outside the Ministry of Labor. @miransaa - Translation)

Tweets from Mexico's presidential candidate - Jose Antonio Meade- and Conagua announcing ongoing work to provide water access in different communities on July 18, 2017 generated multiple retweets, making it the second-highest day in terms of conversation volume.

El acceso al agua es un derecho fundamental. Trabajamos para garantizarlo en todas la comunidades del país

🐦@JoseAMeadeK (July 18, 2017) ¹⁴⁴

(Access to water is a fundamental right. We're working to guarantee it in all the communities of the country - Translation)

¹³⁹ <https://twitter.com/SinEmbargoMX/statuses/910871238414872578>

¹⁴⁰ <https://twitter.com/JuanpaQuijano/statuses/910876037030060034>

¹⁴¹ Google Trends search for agua in Mexico from 9/19/17 to 9/30/17 - <https://g.co/trends/cocnK>

¹⁴² https://twitter.com/SEDESOL_mx/statuses/910639718395555840

¹⁴³ <https://twitter.com/Excelsior/statuses/887322621007634433>

¹⁴⁴ <https://twitter.com/JoseAMeadeK/statuses/887500647045750784>

On December 21, 2017, tweets from Chiapas Governor, Manuel Velasco, about the rehabilitation of wastewater treatment plant in San Juan Bautista Tuxtepec in the Mexican state of Oaxaca and the construction of the Southern Branch in Chiapaneca to help water supply in Chiapas, generated multiple retweets making this date another peaked on Mexico's water conversation.

Rehabilitation of planta de tratamiento de aguas residuales en #tuxtepec

 @VelascoM_ (December 21, 2017) ¹⁴⁵

(Rehabilitation of wastewater treatment plant in #tuxtepec - Translation)

Concluiremos en 2017 la construcción del Brazo Sur que permitirá llevar agua potable a más de 162,000 habitantes de la capital chiapaneca.

 Manuel Velasco @VelascoM_ (December 21, 2017) ¹⁴⁶

(We will conclude in 2017 the construction of the South Arm that will deliver drinking water to more than 162,000 inhabitants of the capital of Chiapas - Translation)

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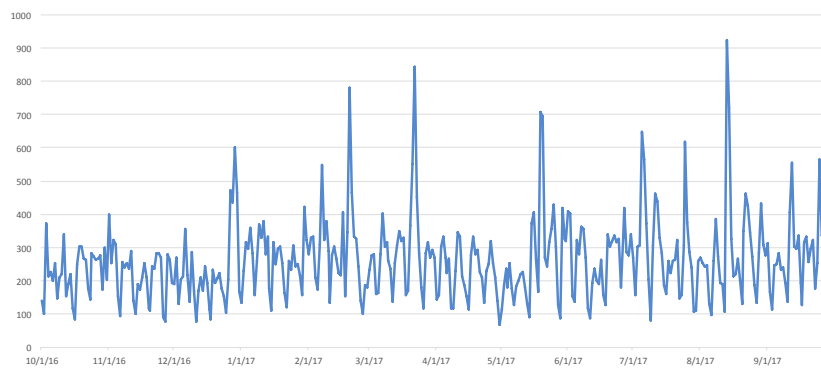
¹⁴⁵ https://twitter.com/VelascoM_/status/811739388321349632/video/1

¹⁴⁶ <http://twitter.com/CGNoticias2/statuses/811785163785011200>

BRAZIL

KEY CONVERSATION POINTS IN BRAZIL:

- ➔ Civil society demanded improvement in basic sanitation services.
- ➔ Price increases for water services and regulations to reduce the cost of water and sewerage services for low-income families.



Brazil had a total of 96K mentions in Twitter and national news.

March 22, 2017
World Water Day

February 20 2017
Trata Brazil study

August 29 2017
BBC Brazil article on treatment plants

[GRAPH 21] - TIMELINE BRAZIL

WHAT HAPPENED IN BRAZIL? ¹⁴⁷

One of the most talked-about stories focused on lack of basic sanitation and the lack of public funding to improve these services.

Um país que não tem nem saneamento básico não pode gastar 3,5 bilhões com partidos políticos . Bi com B <https://twitter.com/huffpostbrasil/status/882584992597110784> ...

[@mariana_godoy](#) (July 5, 2017) ¹⁴⁸

(A country that does not have basic sanitation cannot spend 3.5 billion in political parties. Bi with B-Translation)

¹⁴⁷ Brazil: 95,768

¹⁴⁸ https://twitter.com/mariana_godoy/status/882587507162042368

Dinheiro público para campanhas vai ficar fora do teto de gastos. Proposta cria fundo com R\$ 3,5 bilhões e precisa ser aprovada até setembro pelo Congresso.

🐦 Huffpost (April 7, 2017)¹⁴⁹

(Public money for campaigns will stay out of the spending ceiling. Proposal creates fund with R \$ 3.5 billion and needs to be approved by September by Congress. - Translation)

Price increase and regulations to reduce the cost of water and sanitation services were mentioned on Twitter and national news. Mentions on regulations were about the Commission for Transparency, Inspection and Control and Consumer Protection (CTFC) approval of the Social Water and Sewage Tariff (Tarifa Social de Água e Esgoto) on June 7, 2017. The regulation aims to facilitate water access to low-income families. Mentions on the price increase were related to a 6.08 % price increase in water services in the area of Santa Catarina.

Comissão aprova criação da Tarifa Social de Água e Esgoto para famílias de baixa renda

📰 Senado Notícias (June 26, 2017)¹⁵⁰

(Commission approves creation of Social Water and Sewage Tariff for low-income families- Translation)

Casan reajusta tarifa de água e esgoto em 6,08% em SC: <http://bit.ly/2tus4Px>

🐦 @dconline (July 24 2017) ¹⁵¹

(Casan readjusts water and sewage tariff in 6.08% in SC: <http://bit.ly/2tus4Px> - Translation)

References to water quality also appeared in the conversation when a suit against Samarco (accused of polluting the River Roce due to a rupture of a waste dam in November 2015) was suspended. National news mentioned the judge's reasoning to suspend the suit and explained November's incident, better known as the Tragedy of Mariana.

Justiça mineira suspende ações contra a Samarco sobre qualidade da água

📰 Folha de S.Paulo (March 21, 2017)¹⁵²

(Minas Gerais court suspends actions against Samarco on water quality - Translation)

The results of a study from Instituto Trata Brasil analyzing the state of water and sanitation services in Brazil was highly covered and shared on both Twitter and national news. The study concluded that Brazil loses nearly 40% of treated water due to leaks, clandestine connections, and measurement errors. It also

¹⁴⁹ http://www.huffpostbrasil.com/2017/07/04/dinheiro-publico-para-campanhas-vai-ficar-fora-do-teto-de-gastos_a_23016130/

¹⁵⁰ https://www12.senado.leg.br/noticias/materias/2017/06/07/comissao-aprova-criacao-da-tarifa-social-de-agua-e-esgoto-para-familias-de-baixa-renda?utm_source=midias-sociais&utm_medium=midias-sociais&utm_campaign=midias-sociais

¹⁵¹ <https://twitter.com/dconline/statuses/889572140898320384>

¹⁵² <http://www1.folha.uol.com.br/cotidiano/2017/03/1868388-justica-mineira-suspende-acoes-contra-a-samarco-sobre-qualidade-da-agua.shtml?cmpid=twfolha>

ranked the 100 largest cities based on basic sanitation services. Conversation around this study contributed to making February 20, 2017 one of the days with the most conversation volume in the country.

Brasil perde quase 40% da água tratada com vazamentos e fraudes, aponta estudo

 G1 (February 20, 2017)¹⁵³

(Brazil loses almost 40% of water treated with leaks and fraud, study says - Translation)

Estudo aponta melhora na coleta de esgoto, mas apenas 42% são tratados

 Noticiasaominuto (February 20, 2017)¹⁵⁴

A BBC Brazil's article about the construction of water treatment plants that operate without electricity in Honduras was shared multiple times, making August 29, 2017 one of the highest peaks on the Twitter conversation. The articles highlighted the work of Monroe Weber-Shirk, an engineer whose innovation is helping people in El Salvador, Nicaragua, and India.

A revolucionária invenção que, sem eletricidade, fornece água potável para hondurenhos <http://bbc.in/2wG1jg4>

 BBC Brasil @bbcbrasil (August 29, 2017)¹⁵⁵

(The revolutionary invention that, without electricity, provides drinking water for Hondurans-Translation)

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¹⁵³ <https://g1.globo.com/economia/noticia/brasil-perde-quase-40-da-agua-tratada-com-vazamentos-e-fraudes-aponta-estudo.ghtml>

¹⁵⁴ <https://www.noticiasaominuto.com.br/brasil/349469/estudo-aponta-melhora-na-coleta-de-esgoto-mas-ape-nas-42-sao-tratados>

¹⁵⁵ <https://twitter.com/bbcbrasil/status/902729256752611328/photo/1>

