

# Speaking of Integrity in Water and Sanitation

Recent Evolution of the Integrity and  
Transparency Conversation in the Water  
and Sanitation Sector in Latin America and  
the Caribbean

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# SPEAKING OF INTEGRITY IN WATER AND SANITATION

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# SUMMARY

Public digital conversations offer valuable insight into how the public, governments, and utilities discuss and perceive important topics such as integrity and transparency in the water and sanitation sector. This study analyzes publicly available digital public media, including news articles, blogs, and tweets, to identify content referencing integrity and transparency in water and sanitation in Latin America and the Caribbean between January 2016 and July 2020. The ensuing analysis seeks to uncover trends, drivers, and distributions of this conversation. It also analyzes the difference between sources (ie, digital news media vs. social media) and the impact of COVID-19 on conversation topics and volumes.

## JEL CODES

Q25, D73, Y1, I14

## KEYWORDS

water, transparency, integrity, corruption, sanitation, hygiene, sustainable development goals, Latin America and the Caribbean, digital conversation, social media

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## INTRODUCTION

# INTEGRITY IN WATER AND SANITATION IN LATIN AMERICA AND THE CARIBBEAN

In the last two decades, the region of Latin America and the Caribbean has risen to the challenge in terms of improving access to water and sanitation (W&S) services: between 1990 and 2015, more than 220 million people (out of a total of 600 million) were added to W&S services.<sup>1</sup> Yet, as of 2017, over 25% of households in Latin America and the Caribbean (LAC) still lacked access to safely managed drinking water services and 60% still did not have access to safely managed sanitation services.<sup>2</sup>

The total capital costs of meeting the Sustainable Development Goals (SDGs) targets 6.1 and 6.2 worldwide are US\$114 billion per year, or three times current investment levels.<sup>3</sup> However, according to the Water Integrity Global Outlook,<sup>4</sup> **10% of investment in the water sector is lost to corruption, accounting for over US\$75 billion in annual losses to the sector.** A recent IDB study investigating the cost of corruption in the W&S sector in LAC confirmed this finding; decisive policy reforms reducing corruption risks could result in substantial savings across the sector.<sup>5</sup>

The lack of integrity bears significant costs to the entire infrastructure sector. The United Nations Secretary-General and the World Economic Forum estimate that the total global amount of money diverted due to corruption in infrastructure is at least 5% of the world's gross domestic product, or \$2.6 trillion annually. **The UN estimated that the developing world loses \$1.1 trillion annually in illicit financial flows,<sup>6</sup> compared to about \$100 billion in development assistance, indicating that there is about \$10 of illicit outflow for every \$1 invested in aid.**

Nowadays, integrity failures are compounded by some key contextual factors that make this problem even more pressing. Climate change, technological gaps, and pandemic crisis management represent daily challenges for the water and sanitation sector and directly affect the integrity of water management.

Decisions about the equitable and sustainable provision of water and sanitation (W&S) services are taken in a context of increasing water scarcity and more frequent, intense floods and droughts in many regions. Climate change is one of the key drivers of migration and urbanization, as rural livelihoods are threatened by increasing temperatures and changing rainfall patterns.

Information technologies (ie, blockchain, artificial intelligence (AI), big data analytics, and civic technologies) present an opportunity for the provision of better and more transparent services.<sup>7</sup> However, they also widen the gap in the quality of service provision, especially in poor areas where the applicability of information and communication technology-based solutions is limited. AI applications and big data analytics are increasingly being used in the water sector to improve service accessibility.

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1 WHO & UNICEF, 2017

2 WHO & UNICEF, 2017

3 Hutton & Varughese, 2016

4 WIGO, 2016

5 Adam et al., 2020

6 UN, 2020

7 Stankovic et al. 2020

As for the COVID-19 pandemic, past health crises demonstrate that the opportunity for corruption increases exponentially with each disaster. Procurement rules are relaxed to allow rapid responses such as the delivery of vaccines. The W&S sector relies heavily on the procurement of goods and services to keep up with the increasing demand for water provision to provide minimum health standards.

The crisis raised the attention of the media and the public on how resources are spent in the sector. However, the debate on the importance of integrity and transparency as cross-cutting safeguards in the delivery of fair and equitable public services is far from new. What is novel is the growing demand for reliable and open data on the management of public resources. The W&S sector, as well as other capital-intensive infrastructure, is under constant scrutiny from citizens and civil society, who demand accountability and access to information to actively contribute to the decision-making process.

For all these reasons and considering that social media mirrors, and sometimes intensifies, the most relevant interests and preoccupations of our citizens, it is appropriate to analyze how the discourse on water and integrity has evolved in recent years. This could help to appreciate the drivers and dynamics in the public debate and their relevance from a political and strategic standpoint. Understanding where the public debate is moving when planning integrity reforms might help us appreciate the position of different stakeholders and contribute to the collective effort to prevent and discourage corruption practices.

## KEY DEFINITIONS

Integrity, transparency, accountability, and anti-corruption are critical in governing resources and in providing quality service for all. These principles should frame policy reforms and enforcement.

**Integrity:** *Consistent alignment of, and adherence to, shared ethical values, principles, and norms for upholding and prioritizing the public interest over private interests in the public sector.*<sup>8</sup>

**Transparency:** *Characteristic of governments, companies, organizations and individuals of being open in the clear disclosure of information, rules, plans, processes, and actions.*<sup>9</sup>

**Accountability:** *Obligation to give an account of government's actions to particular individuals, groups, or organizations.*<sup>10</sup>

**Corruption:** *The abuse of an entrusted power for private gain.*<sup>11</sup>

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8 OECD, 2016

9 Transparency International, 2008

10 World Bank, 2009

11 Transparency International, 1993. For an extensive review of the many connotations of the corruption definition, please see "Corruption and Government", Susan Rose-Ackerman and Bonnie J. Palifka, Cambridge University Press, 2016

# INTEGRITY PITFALLS IN THE WATER AND SANITATION SECTOR

In W&S, the promotion of integrity and transparency is directly associated with the achievement of higher efficiency levels. There are important incentives to implement processes that improve the performance of the main actors, particularly the companies that supply W&S. In a context of continuous improvement, integrity management - which includes transparency, participation, accountability, and corruption control - can trigger the adoption of virtuous corporate governance practices and improve the operational, financial, organizational, and management processes.<sup>12</sup>

If transparency can contribute to better water management, corruption represents its main obstacle. Corruption practically means power unbound, since it gives the powerful the means to work against and around rules that communities set themselves. This makes corruption in water particularly detrimental. It allows the powerful to break the rules that preserve habitats and ecosystems, pollute water sources we all depend on, and to steal the resources needed to provide water to the poor.<sup>13</sup>

Given that the W&S sector is particularly procurement-dependent, corruption manifests itself frequently in the purchase of goods and services. According to the dominant public procurement literature<sup>14</sup>, institutionalized corruption steers the contract to the favored bidder without detection in a recurrent and organized fashion.<sup>15,16</sup> This requires at least two violations of principles of impartial distribution of public resources: 1) avoiding competition by using unjustified sole sourcing or direct contract awards, and 2) favoring a certain bidder by tailoring specifications or sharing inside information.

Restricted and unfair access translates into higher prices and lower quality and quantity to generate corruption rents. Such rents can be extracted through bribes, although it is more typical to channel rents through broker firms, subcontracts, offshore companies, and/or bogus consultancy contracts.

## SCOPE OF THE ANALYSIS AND RELEVANCE FOR THE POLICY DEBATE

Lack of integrity is one of the challenges inhibiting effective implementation of W&S programs designed to address access and quality gaps. Rather than being used to meet the needs of vulnerable populations, funds are diverted for the benefit of a few elite and corrupt individuals.

The following analysis relies on a survey of the public digital conversation on integrity, and particularly on transparency in the W&S sector, from January 2016 to July 2020. Using queries, via Boolean search, public digital channels (social media, digital news, and others) in LAC were monitored and analyzed for mentions related to integrity and transparency within the W&S sector to understand the dynamics of the public debate on these issues.

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12 Avello et al., 2019

13 Transparency International, 2008

14 Rothstein & Teorell, 2008

15 Fazekas et al., 2014

16 World Bank, 2009

# PAPER OUTLINE

First, the report provides an overview of the general W&S conversation to understand the sector's context. This first part is followed by a deep dive into the key insights from the conversation on water integrity in the sector, with a specific focus on transparency.



# THE WATER INTEGRITY CONVERSATION IN LATIN AMERICA AND THE CARIBBEAN

## OVERVIEW OF THE GENERAL WATER AND SANITATION CONVERSATION

To find out more about the W&S conversation in LAC, please visit: [Speaking of Water: Digital conversations on water and sanitation in Latin America and the Caribbean \(2016-2017\)](#).

The W&S conversation is becoming increasingly more relevant across public digital channels. Between January 2016 and July 2020, the W&S conversation saw a 42.6% volume increase. In 2020, the conversation reached 80% of that of 2019 within the first seven months, indicating steady growth (see Figure 1). Every year, online discussions peak on March 22nd, otherwise known as World Water Day (see Figure 2). This increase in online conversation is expected, as international organizations, media platforms, governments, and citizens take to Twitter to raise awareness about water conservation and access to clean water. The COVID-19 pandemic created a shift toward handwashing, rather than other W&S topics, in March 2020.

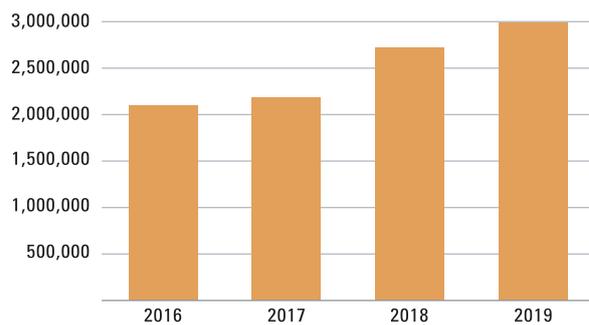


FIGURE 1. WATER AND SANITATION MENTIONS BY VOLUME PER YEAR FROM 2016 TO 2019.

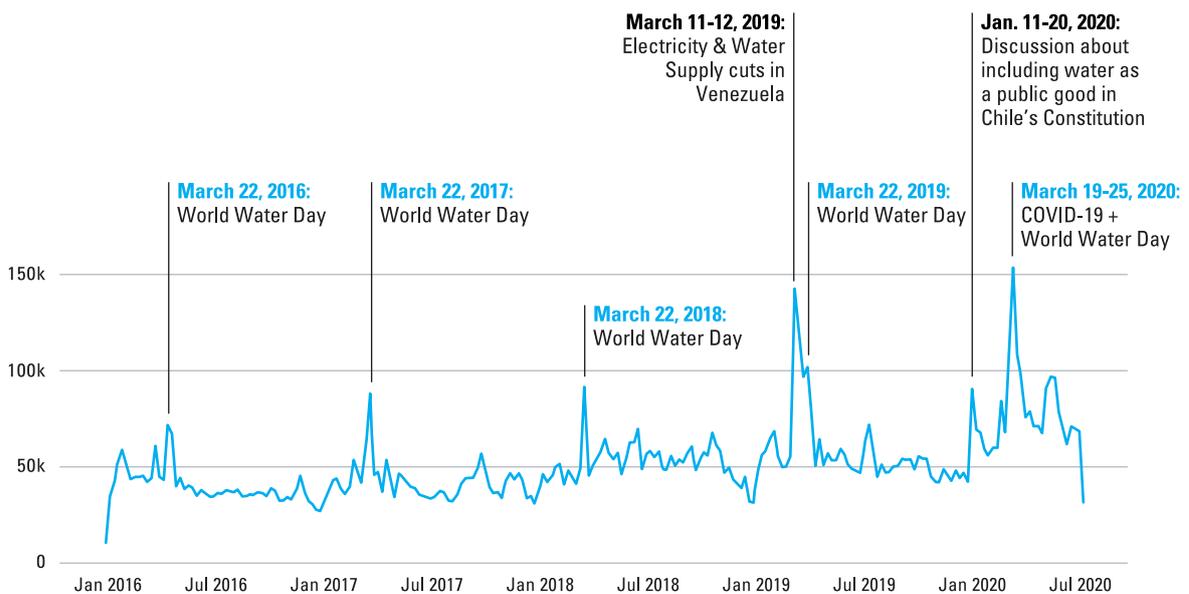


FIGURE 2. TIMELINE OF WATER AND SANITATION CONVERSATION FROM JANUARY 2016 TO JULY 2020.

Much of the W&S conversation centers on complaints regarding lack of clean water, lack of access, water shortages or cuts, and water quality issues. The conversation is reactive, as many users write Twitter posts or articles in reaction to specific events or dates, rather than maintaining a substantive conversation on W&S topics over time. Nonetheless, government accounts share more informative content related to initiatives and projects.

## INTEGRITY CONVERSATION TRENDS IN WATER AND SANITATION

Given that the water integrity conversation is very broad, the study focuses mostly on the specific role of transparency in the W&S sector. The focus on this topic has grown steadily, with the total volume of conversation about water and transparency nearly doubling between 2016 and 2019 (an 88% increase). From January to July 2020, the conversation already reached 60% of the total 2019 volume (see Figure 3).

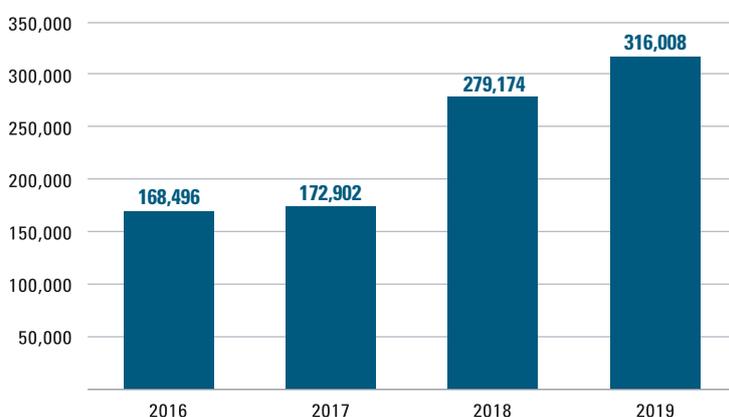


FIGURE 3. WATER AND TRANSPARENCY MENTION VOLUME BY YEAR FROM 2016 TO 2019.

Although the water and transparency conversation has grown over four years, it still represents a fraction of the overall W&S conversation (see Appendix a). In 2016, it only represented 8% of the total W&S conversation and it grew slightly to 10.6% in 2019.

The water and transparency conversation varies across countries, with some focusing more on corruption and lack of transparency, and others on accountability and promotion of transparency efforts. The conversation in Caribbean countries<sup>17</sup> was quieter when compared to the rest of Latin America.

17 Unlike the rest of the W&S conversation analyzed, which was in Spanish, this analysis was conducted in English.

## HAS THE CONVERSATION CHANGED?

Like the rest of the W&S conversation, the water and transparency conversation is also reactive and is mostly driven by corruption allegations, accusations against public utilities, and calls for W&S improvements in LAC. Corruption-related discussions, which reference fraud, bad practices, illegal practices, and fights against corruption, represent 70% of the total water and transparency conversation.

These water and transparency conversations have evolved from information toward accusations and demands for accountability. In 2016, the conversation focused on specific corruption and fraud cases in W&S. In 2017, it evolved towards providing information on specific corruption cases as well as best practices and best management contests in the sector. In 2018, while still focused on these cases, the conversation shifted toward calls to action, with individuals and governments talking about the need to improve water and other public sectors. In 2019, more specific calls for accountability emerged, including mentions highlighting governments' efforts to foster accountability (“*rendición de cuentas*”) and accountable water projects.

The water and transparency conversation transcends sectors as mentions tend to also refer to other public services, including health, social investment, and environment (see Figure 4). Governments use their digital channels to inform the public about their initiatives and other efforts to promote transparency, making references to transportation, water resources, environment, roads, etc. Thus, mentions promoting transparency or calling out corruption tend to be all encompassing, rather than specifically target the W&S sector.

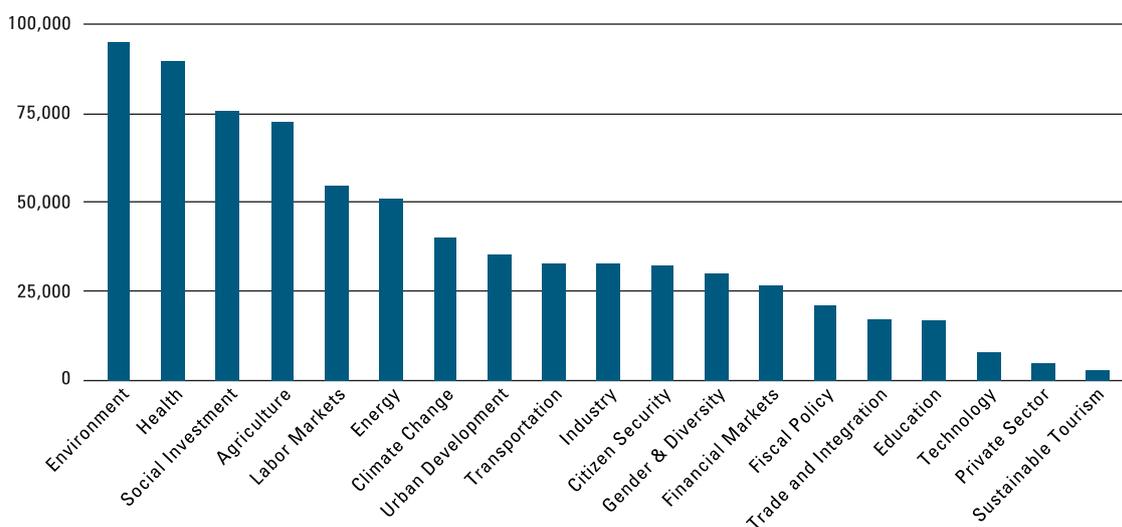


FIGURE 4. VOLUME OF MENTIONS REFERRING TO IDB SECTORS WITHIN THE WATER AND TRANSPARENCY CONVERSATION FROM MARCH 2018 TO FEBRUARY 2020.

# DRIVERS

Specific events drive the water and transparency conversation. Examples include water crises, privatization efforts, water shortages, and unveiling of corruption cases, with the latter accounting for 70% of the total water and transparency conversation. Complaints about corruption have a negative tone and generally highlight the lack of transparency in LAC’s public sector. Meanwhile, governments post about transparency efforts and their fight against corruption by promoting their initiatives. Some citizens show their support for these efforts or the politicians working on these areas.

Across all countries, government posts account for 15% of the total water and transparency conversation. They inform the public about good practices in water efficiency, promoting citizen engagement and participation, and solid waste management initiatives.

Water providers offer information on workshops and conferences to fight corruption. Events generally highlight “transparency”, “good governance”, and “good practices”.

Citizens post complaints or criticisms of corruption in general or about specific fraud cases. Unlike the climate change conversation, which is led by activists, individual users in the water and transparency conversation are dispersed and tend to post occasionally.

# GENDER DISTRIBUTION

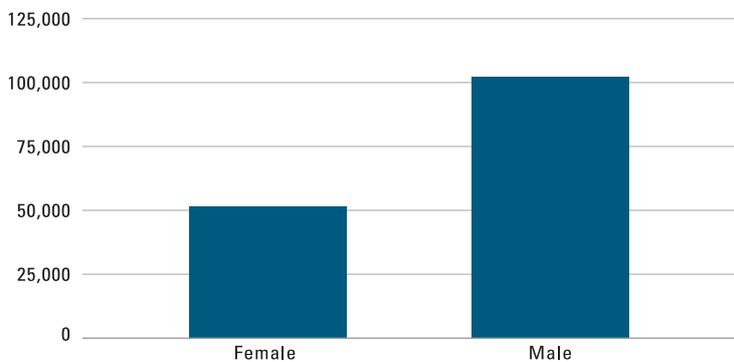


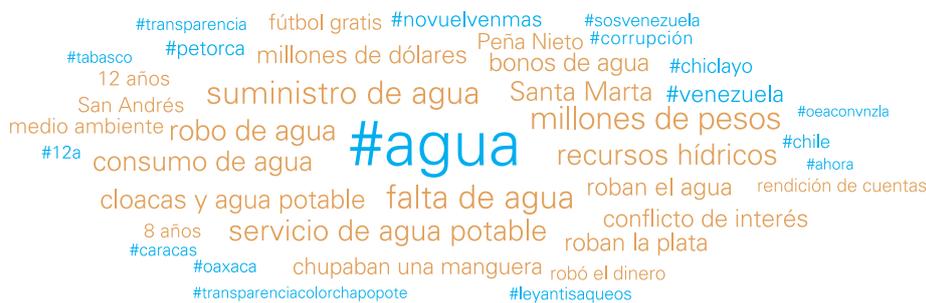
FIGURE 5. WATER AND TRANSPARENCY-RELATED MENTIONS BY GENDER.

Overall, the transparency conversation on Twitter is male-driven. Whereas female accounts correspond to 34% of the conversation volume, male accounts represent approximately 66%. Gender distinctions were made based on available Twitter biographies.<sup>18</sup>

<sup>18</sup> 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, were left unclassified. More information here: <https://www.brandwatch.com/blog/product-update-gender-and-account-type-for-twitter/>



**Female conversation**



**Male conversation**

FIGURE 6. TWITTER WATER AND TRANSPARENCY CONVERSATION TOPICS BY GENDER

Men tend to tweet from a political perspective, with an emphasis on corruption as well as complaints against the government, their initiatives, and projects. Women perceive water as a basic human right and generally advocate for the collective responsibility of taking care of water and related rights.

## NEWS CONVERSATION

Media outlets account for 60.9% of the total water and transparency conversation. The remaining 40% is divided between Twitter (35.6%) and other digital channels (less than 4%). Across the study period, news sites have the highest mention volume in the water and transparency discussion. Most articles share information on government-led initiatives and projects, as well as specific W&S corruption cases. They provide a steady stream of water and transparency content. Meanwhile, the Twitter conversation<sup>19</sup> is less informative and more driven by complaints.

19 76.7% of the Twitter conversation consists of retweets and only 16.3% are original tweets. 7.1% are replies.

# COVID-19 IMPACT

To understand how COVID-19 influenced the water and transparency conversation, the discussion about COVID-19 in the W&S sector and the water and transparency conversation between March 1st and July 31st, 2020 were analyzed. Overall, COVID-19 did not significantly change the water and transparency conversation. Complaints remained at the forefront of that conversation, with a broader focus on the state of public services in different countries and lack of transparency. Meanwhile, the W&S conversation shifted from complaints about water shortages, lack of clean water, and general mentions of water initiatives, toward discussions about handwashing and hygiene.

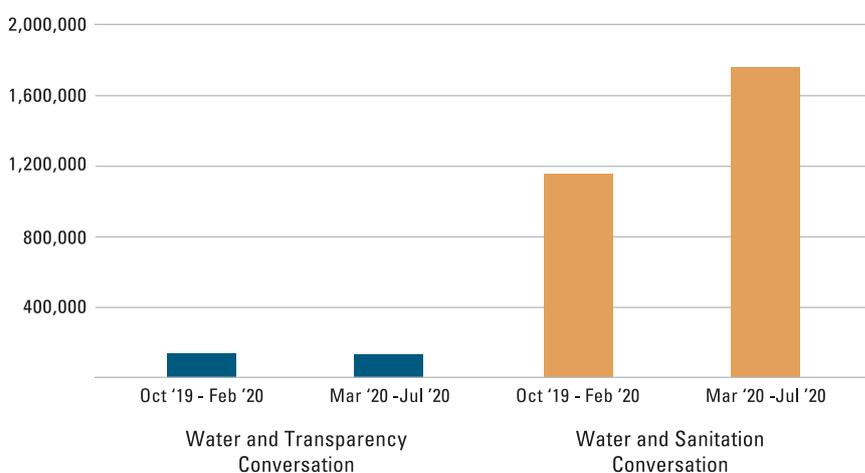


FIGURE 7. EVOLUTION OF WATER AND TRANSPARENCY CONVERSATION AND W&S CONVERSATION FIVE MONTHS BEFORE THE COVID-19 PANDEMIC AND FIVE MONTHS DURING THE PANDEMIC.

COVID-19 had an impact on the volume of W&S conversations, but less so on the water and transparency conversation. The W&S conversation grew by 52% between [October 2019 - February 2020] and [March 2020 - July 2020]. Meanwhile, the water and transparency conversation decreased slightly: from 134,588 mentions<sup>20</sup> to 128,803 mentions over the same time periods (see Figure 7).

<sup>20</sup> A mention represents a news article, tweet, blog, or other digital public media piece.

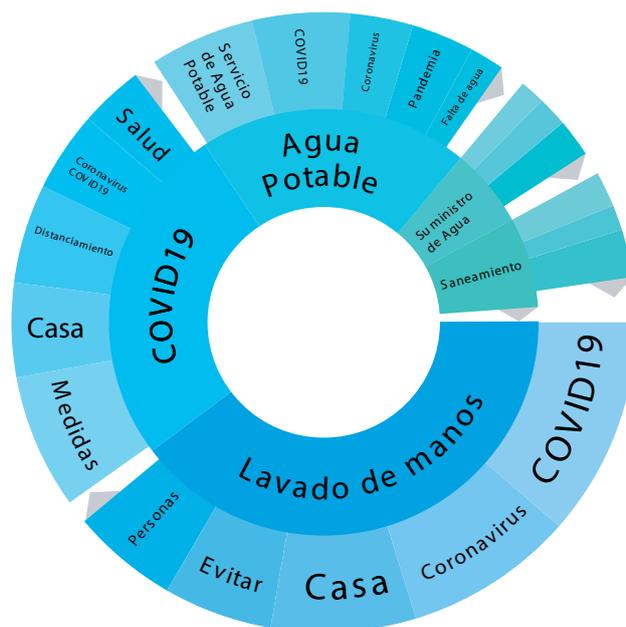


FIGURE 8. KEY TOPICS IN THE WATER AND SANITATION CONVERSATION FILTERED FOR COVID-19 ISSUES (IE, HANDWASHING, POTABLE WATER, HOME, HEALTH, CORONAVIRUS, ETC.) (\*Information only available in Spanish.)

The W&S conversation about COVID-19 is not led by a single group. Rather, everyone participates in this discussion, including governments, civil society, individuals, and news outlets. Most of the dialogue centers on promoting measures such as handwashing and wearing masks to prevent the spread of the virus. Some social media users raise awareness about the fact that some communities are more vulnerable because they do not have access to clean water. They emphasize the need for more investments in the public health sector.

## KEY FINDINGS

- 1 The transparency conversation in W&S has increased steadily over the last few years.
- 2 Corruption-related conversations drive the water and transparency discussion, yet conversations focusing on the concepts of integrity and transparency are emerging and are mainly driven by governments.
- 3 The discussion referencing integrity and transparency encompasses various public services, not only W&S.
- 4 Over time, corruption-related conversations have shifted from providing information to asking for explanations and encouraging transparency.
- 5 The conversation varies across countries, with some focusing more on corruption and lack of transparency and others on accountability and the promotion of transparency.
- 6 While news sources typically provide information on government-led initiatives and specific corruption cases, Twitter conversations are mostly driven by complaints.
- 7 Trends have emerged. Governments discuss transparency and integrity by promoting their efforts and initiatives. Water providers discuss best practices. The public focuses primarily on accusations and complaints. (See Figure 9.)
- 8 Men seem to drive the integrity and transparency conversation, reflecting a gender imbalance throughout the sector. In highly urban settings, W&S services are typically driven by men. In rural areas, women heads of household typically take on this responsibility.
- 9 COVID-19 has shifted the W&S conversation toward hygiene, without impacting the water and transparency discussion.

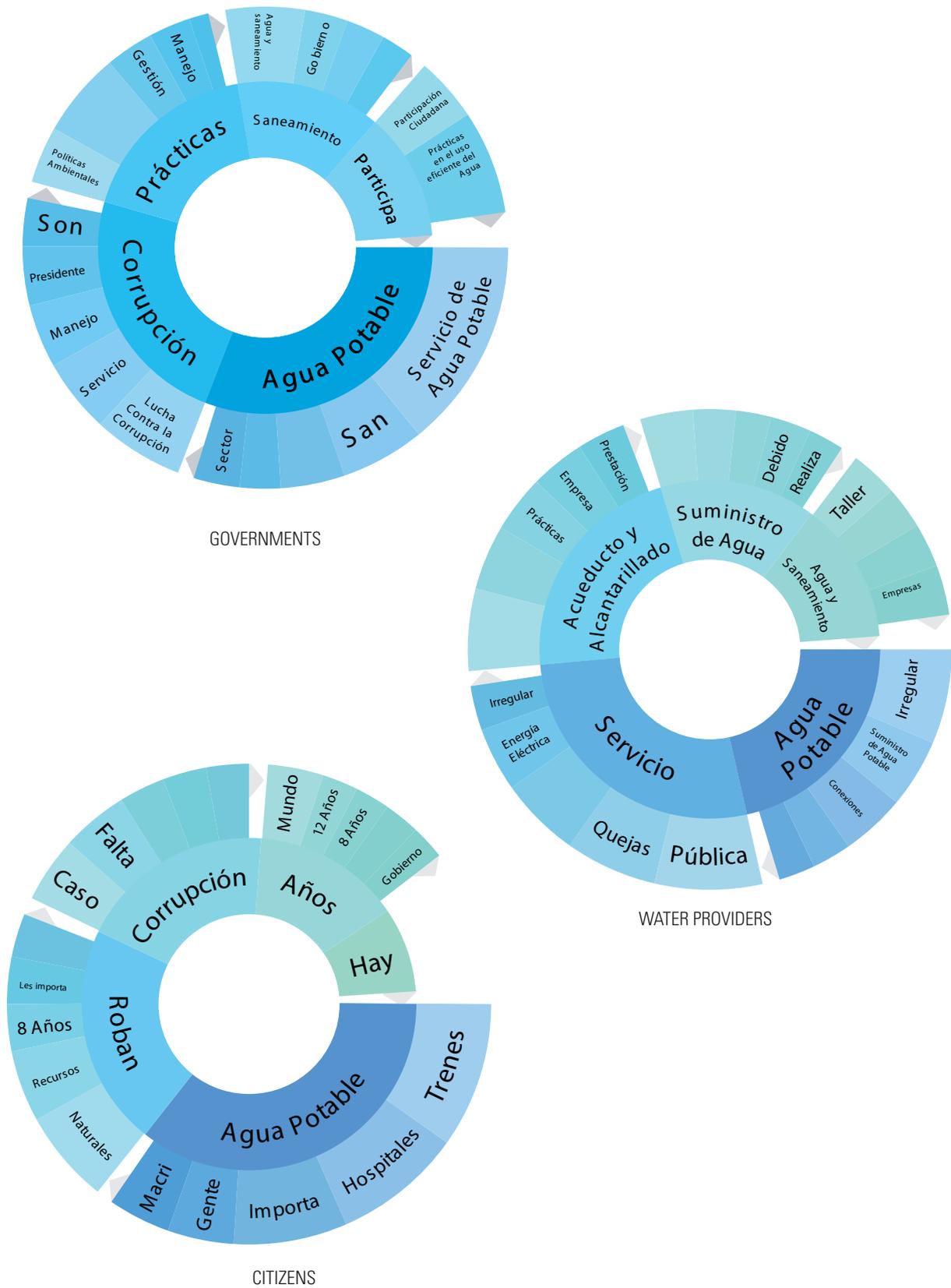
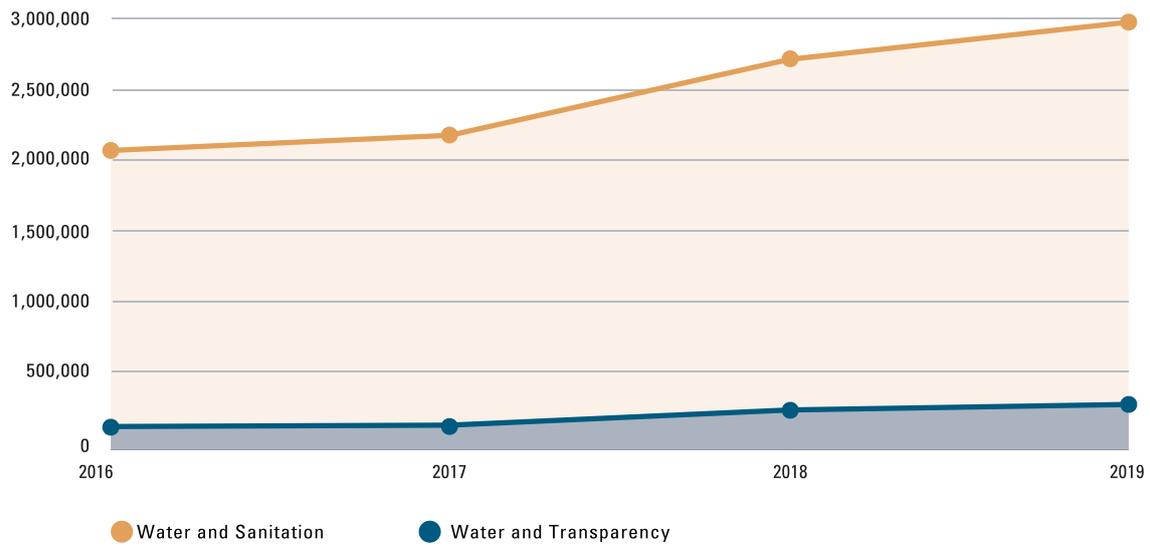


FIGURE 9. KEY CONVERSATION TOPICS OF GOVERNMENTS, WATER PROVIDERS, AND CITIZENS (\*Information only available in Spanish.)

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# APPENDIX



Year	Water and Sanitation	Water and Transparency	% of Water and Transparency
2016	2,092,698	168,496	8.05%
2017	2,189,826	172,902	7.90%
2018	2,726,430	279,174	10.24%
2019	2,984,478	316,008	10.59%

FIGURE A. SHARE OF WATER AND TRANSPARENCY CONVERSATION IN THE WATER AND SANITATION CONVERSATION

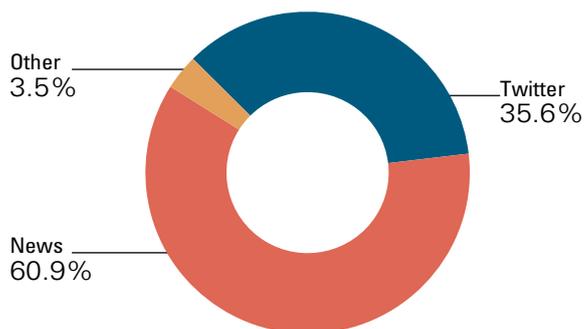


FIGURE B. BREAKDOWN OF THE WATER AND TRANSPARENCY CONVERSATION BY CHANNEL

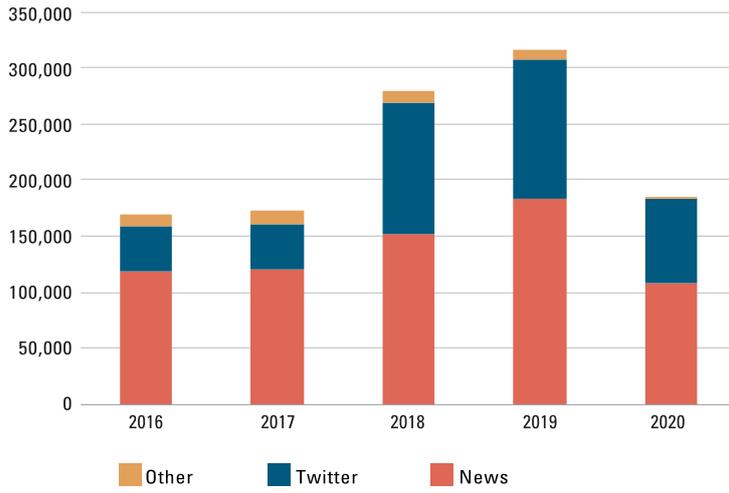


FIGURE C. BREAKDOWN OF WATER AND TRANSPARENCY CONVERSATION CHANNELS OVER TIME

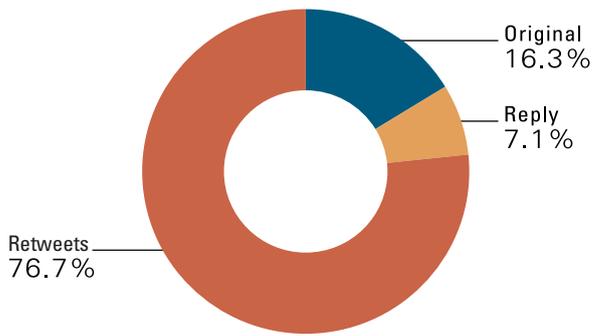


FIGURE D. BREAKDOWN OF TWITTER CONVERSATION BY RETWEETS, ORIGINAL TWEETS, AND REPLIES

