



## OPEN ACCESS

EDITED BY  
Juliet Willetts,  
University of Technology Sydney, Australia

REVIEWED BY  
Nuhu Amin,  
University of Technology Sydney, Australia  
Farhana Haque,  
University of London, United Kingdom

\*CORRESPONDENCE  
Ortrun Merkle  
✉ merkle@merit.unu.edu

RECEIVED 19 September 2022

ACCEPTED 11 April 2023

PUBLISHED 12 May 2023

## CITATION

Merkle O, Allakulov U, Gonzalez D,  
Sánchez AH, Rabbi SE and Hasan Z (2023)  
When vulnerabilities are exploited—The role of  
sextortion in the WASH sector in Bangladesh.  
*Front. Water* 5:1048594.  
doi: 10.3389/frwa.2023.1048594

## COPYRIGHT

© 2023 Merkle, Allakulov, Gonzalez, Sánchez,  
Rabbi and Hasan. This is an open-access article  
distributed under the terms of the [Creative  
Commons Attribution License \(CC BY\)](#). The use,  
distribution or reproduction in other forums is  
permitted, provided the original author(s) and  
the copyright owner(s) are credited and that  
the original publication in this journal is cited, in  
accordance with accepted academic practice.  
No use, distribution or reproduction is  
permitted which does not comply with these  
terms.

# When vulnerabilities are exploited—The role of sextortion in the WASH sector in Bangladesh

Ortrun Merkle<sup>1\*</sup>, Umrbek Allakulov<sup>2</sup>, Debora Gonzalez<sup>2</sup>,  
Alfredo Hernández Sánchez<sup>3</sup>, Sifat E. Rabbi<sup>4</sup> and Zobair Hasan<sup>5</sup>

<sup>1</sup>The United Nations University – Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT) and Maastricht University, Maastricht, Netherlands, <sup>2</sup>Water Integrity Network, Berlin, Germany, <sup>3</sup>Institut Barcelona d'Estudis Internacionals, Barcelona, Spain, <sup>4</sup>Change Initiative, Dhaka, Bangladesh, <sup>5</sup>Development Organization of the Rural Poor (DORP), Dhaka, Bangladesh

It has long been acknowledged that many aspects of Water, Sanitation, and Hygiene (WASH) are highly gendered and that women face an increased risk of violence when access to WASH services is not adequate. However, not enough studies explore where these incidents of violence occur or document the different forms of violence. This research paper will add to the newly emerging research on sextortion as a form of violence that women and girls encounter disproportionately in accessing WASH. This form of violence that takes place at the intersection of corruption and sexual violence has dire social, economic and health consequences, yet little is known as of what increases vulnerability to sextortion. Analyzing original data from a standardized survey with adult women ( $n = 1,200$ ), interviews ( $n = 21$ ) and focus group discussions ( $n = 5$ ), this paper examines the factors that make women vulnerable to sextortion in accessing WASH services. The study was conducted in 2 rural and 2 urban areas in Bangladesh between September and December 2021. The analysis shows that those women living in poverty, in water insecure households and in rural areas are especially vulnerable to experiencing sextortion. The research also shows that the vulnerability factors, while overlapping are not the same as those making women vulnerable to experiencing sexual and gender-based violence, highlighting the importance of studying sextortion separately. The findings contribute to an emerging evidence-base around sextortion, which remains an understudied phenomenon posing an obstacle to the achievement of safe access to water and sanitation for all.

## KEYWORDS

sextortion, wash, sexual and gender-based violence, Bangladesh, corruption

## 1. Introduction

Gender plays an important role in understanding violence in the Water, Sanitation and Hygiene (WASH) sector. Women have been shown to face an increased risk of violence when access to WASH services is not adequate (Hirve et al., 2014; Gonsalves et al., 2015; Jadhav et al., 2016; Kulkarni et al., 2017; Pommells et al., 2018), however more research is still needed to understand where these incidents of violence occur and what forms of violence women face (Sommer et al., 2015). This paper is exploring a form of violence that has only recently been receiving more attention, sexual extortion, or sextortion. Sextortion is a form of corruption, where the body, rather than money or goods are the payment of the bribe (Merkle, 2020) and takes place at the intersection of corruption and sexual violence.<sup>1</sup>

1 World Health Organization (n.d.) defines: "Sexual violence is any sexual act, attempt to obtain a sexual act, or other act directed against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting. It includes rape, defined as the physically forced or otherwise coerced penetration of the vulva or anus with a penis, other body part or object."

Only few studies have addressed how and where individuals are vulnerable to sextortion (Merkle et al., 2017; Eldén et al., 2020; Feigenblatt, 2020; Caarten et al., 2022), however, they all highlight that, while sextortion can happen to anyone, women are disproportionately affected by this form of corruption. Yet, much more research is still needed to identify which factors increase women's vulnerability to sextortion, particularly in sectors of public life, where women are especially at risk of facing violence.

Corruption research has long highlighted that women and men experience corruption differently in accessing different services, where "[s]ystematic discrimination against women produces social dynamics that generate power imbalances and facilitate corruption, including gendered forms of corruption, while also making it harder for women victims of corruption to seek justice for corrupt abuses of power" (Transparency International and Equal Rights Trust, 2021, p. 22). Yet, surprisingly little work has looked in more detail at providing case studies discussing vulnerabilities in specific sectors. A sector that is not only often plagued by corruption but is also highly gendered is the WASH sector (Zinnbauer and Dobson, 2008; Stålgren, 2015; Pommells et al., 2018). Therefore, this paper will take a closer look at the vulnerability of women to a highly gendered form of corruption, sextortion, in the WASH sector in selected areas of Bangladesh. Previous studies in Kenya, South Africa, and Columbia highlight that women and girls face high risks of encountering sextortion (UNDP-SIWI Water Governance Facility, 2017; KEWASNET and ANEW, 2020), hence the data collected for this paper, exclusively focused on the experience of women.

Sextortion is defined as "the abuse of power to obtain a sexual favor" (IAWJ, 2012, p. 9). In addition to the sexual component, there are three distinct features that need to be present for the corruption component in sextortion: "abuse of authority; a quid pro quo exchange; and psychological coercion rather than physical force" (IAWJ, 2012, p. 9). On the latter, the sexual component in sextortion does not have to involve sexual intercourse but can also comprise acts such as exposing private body parts or posing for sexual photographs (IAWJ, 2012). It is differentiated from rape or sexual assault in that it involves a "quid pro quo" exchange in which the victim gives a sexual favor to obtain some benefit that the person in authority can provide or withhold. Importantly, sextortion happens in a context of psychological coercion, that is, the perpetrator exerts coercive pressure, rather than consent being given freely. Just as power over someone is a crucial element of all sexual and gender-based violence, it is also a condition of corruption, and in particular, sextortion (IAWJ, 2012). "Much of the gendered experience of corruption in the water supply sector is tainted by the feeling of being powerless in relation to an authority upon which one relies for the fulfillment of a basic need." (UNDP-SIWI Water Governance Facility, 2017, p. 5).

Sextortion, includes both instances, where the sexual activity was demanded by an individual in a position of power and where sex or sexual activity are initiated by a person dependent on an access to a service which they fear not to otherwise be able to obtain. However, the latter should not be misinterpreted as acts that women gave consent to. Rather, the power imbalances in these exchanges lead to "coerced consent" (Eldén et al., 2020). Since water is a life-sustaining resource, those in power know that the

person in need of access is in a desperate situation and may be willing to go to extreme lengths to secure access. This is particularly important to remember also when discussing the policy responses to sextortion cases.

Previous studies found that sextortion in access to WASH services is a part of the lived reality of women in many places. A study in Bogotá, Colombia, and Johannesburg, South Africa, found frequent cases of sextortion. Women were demanded or offered sexual favors when they needed to access resources or services, for example to get water delivered, in return for intentionally misreading the water meter or not turning off the water supply (UNDP-SIWI Water Governance Facility, 2017). Similarly, a study in Kibera Project, Kenya found that sextortion was fairly entrenched in the study area with about 2 respondents in 10 reporting having heard about it (KEWASNET and ANEW, 2020, p. 24). Pommells et al. (2018), looking at case studies in East Africa, document cases of sextortion, such as skipping ahead in water queues and offering sex for water when users cannot pay the fees.

This study will add to this emerging literature by analyzing factors that make women vulnerable to experiencing sextortion when accessing WASH services in selected regions of Bangladesh. To get a better understanding of what makes women vulnerable to violence it is important to understand that such an analysis needs to go beyond simply looking at the sex of an individual and recognize that gender is a "complex, multilevel cultural construct that determines the meanings of being female or male in a particular situational context" (Russo and Pirlott, 2006, p. 180). Therefore, this paper assesses which factors, such as physical ability, and class intersect with gender and how they might play a role in determining which women do or do not experience sextortion when accessing WASH services. It has been well-established that inequalities in accessing WASH services for women and girls lead to negative health consequences (Pouramin et al., 2020) and sextortion likely exacerbates these inequalities even further. In addition, it has been shown that sextortion, similar to sexual and gender-based violence, has detrimental effects on women's economic, psychological and physical wellbeing (Feigenblatt, 2020; Caarten et al., 2022). Therefore, understanding and preventing sextortion in WASH can be expected to lead to an improvement in the wellbeing of women and girls accessing those facilities.

Bangladesh was chosen as a case study for this research for several reasons. As the country experiences both high levels of corruption and sexual and gender-based violence, it can be hypothesized that sextortion, which lies at the intersection of the two also occurs. The country is faring poorly on Transparency International's (TI) Corruption Perception Index (ranked 147 out of 180 countries in 2021) and Transparency International Bangladesh (2020) considers corruption as "one of the main impediments to establish women's rights" (para. 1). The Global Corruption Barometer 2020 reported that 24% of public service users and 22% of those using utilities paid a bribe in the previous 12 months (Transparency International, 2020). Bangladesh also experiences challenges with regards to access to WASH services, with only 59% of the country having safely managed access to drinking water, 39% safely managed access to sanitation, and 58% basic access to hygiene (WHO and UNICEF, 2021). In a regional

comparison, Bangladesh is faring worse than most of its regional neighbors in both sanitation and hygiene, and scores in the middle field for water (WHO and UNICEF, 2021). Further, the decision making on WASH is dominated by men (Livani et al., 2021). A 2017 study, for example, shows that in the south-west of the country, only 20 percent of representatives in water management organizations are women and typically they are not present in high level positions (Buisson et al., 2017). In addition, only 6 percent of the workforce in water and sanitation utilities are women (World Bank, 2019). Sexual and gender-based violence (GBV) is also a serious concern in the country (UNDP Bangladesh and PTIB, 2022). The organization ODHIKAR has been compiling data on different forms of GBV, however, the resulting numbers are likely only a small fraction of the actual cases. The organization's data on average identifies over 800 rapes annually in the twenty-year period between 2001 and 2021. For the past 10 years (2011–2021), they also collected information on over 3,000 girls reporting to have been sexually harassed and stalked (Odhikar | Statistics on Violence against Women<sup>2</sup>). Young, unmarried women are especially exposed to sexual harassment (Camellia et al., 2012; Nahar et al., 2013). The World Bank in 2013 estimated that more than 50% of women in rural Bangladesh experience domestic violence regularly, and this number is likely an underestimation (World Bank, 2013). A recent study also shows that open defecation is significantly associated with experiencing sexual violence by partners in the home (Murshid, 2022).

Male violence against women is also closely linked to existing gender and social norms. Fattah and Camellia (2020, p. 784) found that the “majority of both men and women in the rural areas of Bangladesh adhere to hegemonic gender norms and attitudes that justify, promote, and perpetuate violence against women. These norms, beliefs, and attitudes are routinely and systematically translated into practice by men and are justified by them to exert control over women's body through the use of violence and simultaneous victim blaming”. The authors find that women also share similar beliefs, norms and attitudes. When researching sextortion, it is essential to understand how these norms play a role in allowing sextortion to persist and at the same time prevent victims from reporting. In addition, significant issues of shame and stigma still prevent women from reporting violence both inside and outside the home (Kishor and Johnson, 2005; World Health Organization, 2005). A report by Humans Rights Watch (2020) for example, shows how survivors of abuse by husbands or in-laws rarely report the abuse as it is considered a private matter, and highlights how the country is lacking robust services and reporting mechanisms for survivors of GBV.

This paper goes beyond the existing studies of sextortion in WASH by not only mapping where and how frequently women are exposed to sextortion, but also by analyzing which factors make women more vulnerable to experiencing sextortion. Therefore, the results of the analysis could provide important insights for potential policy changes.

The paper is organized as follows. The next section will present the data collected and the method of analysis. The paper will then

move to discussing the different factors of vulnerability and end with concluding remarks.

## 2. Materials and methods

The data presented in this paper has been collected by the Water Integrity Network in collaboration with local civil society organizations. The analysis is based on a mixed methods approach. A standardized survey was conducted with 1,200 respondents. A stratified purposeful sampling (Sandelowski, 2000) approach was applied to select respondents, which involved a prior identification of water stressed areas and then selection of respondents using the random walk method in those areas. To enable regional comparisons on sextortion prevalence, 300 responses were obtained in each study area. The sample size was determined taking into account available financial resources for data collection and in the absence of a baseline incidence for the outcome of interest, i.e., sextortion in access to WASH services. In addition, 5 focus group discussions were conducted with women. For the focus group discussions, convenience sampling was utilized by recruiting volunteers among the respondents of the standard survey. Moreover, key informant interviews were conducted with 21 respondents who were selected through purposeful sampling. A set of criteria was applied to select participants for the key informant interviews, which included professional affiliation with various water and sanitation sector stakeholder groups in the study areas and willingness to provide insights from the service provision perspective.

The data was collected between September and December, 2021. All phases of primary data collection, including enumerator training, supervision, random sampling, were conducted by two local organizations, the Development Organization of the Rural Poor (DORP) and Change Initiative (CI). Data was collected in four areas of Bangladesh spread across the three administrative districts: Satkhira (south west), Bandarban (south-east), and Dhaka (a central district, which is sub-divided into Dhaka North City Corporation and Dhaka South City Corporation; Figure 1). Bandarban and Satkhira are rural areas that are both water-stressed. Bandarban is a hilly region with a low groundwater table, whereas Satkhira is a coastal area where saline water is predominantly available (Ahmed et al., 2018; Chakma et al., 2021). In the two urban district of Dhaka, the survey was conducted in two slum areas: Korail, located in the Dhaka North City Corporation, and Rasulpur, located in the Dhaka South City Corporation. In the context of urbanization, these slums have been growing in population size over the last three decades, whilst the provision of services such as access to safe drinking water and basic toilet facilities has not kept up. Korail covers approximately 100 acres and is home to more than 50,000 residents, most of whom live under the poverty line (BRAC, 2014). A major eviction drive around Dhaka in 2007–2008 saw many slum dwellers relocate to Korail, further deteriorating the living conditions and service access there. Rasulpur is located within the Kamrangirchar, peninsula area hosting one of the biggest slum areas in Dhaka South (Banglapedia, 2021). WASH facilities in

<sup>2</sup> Available online at: <http://odhikar.org/statistics/statistics-on-violence-against-women/> (Retrieved May 1, 2022).

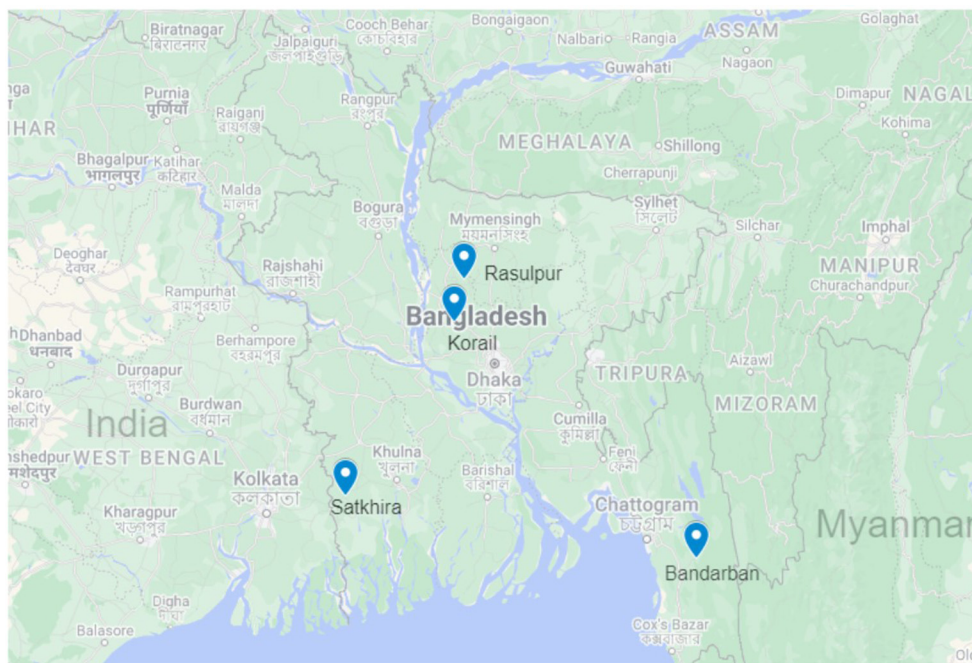


FIGURE 1 Overview of study areas. Source: Google Maps 2022.

the area are poor and provide only limited access to safe water and sanitation.

As previous studies have shown that women are disproportionately affected by sextortion, both in the water and sanitation sector, and in other contexts (UNDP-SIWI Water Governance Facility, 2017; Feigenblatt, 2020), only women were interviewed.<sup>3</sup> Given the sensitive nature of the topic of study, only women over 18 were included in the data collection. The focus groups had between 4 and 13 participants. Data collection using the standardized survey was carried out using both mobile devices and paper questionnaires, which were then manually entered into a central database. The standardized survey comprised both general questions about the profile and experience of the respondent and their household members, as well as specific question about the respondent’s experience with corruption sexual and gender-based violence, and sextortion, if any.

In order to understand where sextortion occurs, one also needs to understand where and when sexual and gender-based violence occurs. Therefore, the survey included question about different forms of SGBV, four of which were identified to constitute acts of sextortion (Table 1).

The interviews and focus groups were not recorded but the interviewers took detailed notes and wrote summary reports for each interview and focus group. These summary reports were then analyzed using Atlas.ti. The decision to not record was made

<sup>3</sup> This paper focuses solely on the experiences of women, as previous research has shown that they are disproportionately affected by it (Merkle et al., 2017; Eldén et al., 2020; Feigenblatt, 2020), however, this does not mean that men and non-binary individuals are not experiencing sextortion. This should be taken into consideration for future studies.

TABLE 1 Forms of sextortion and sexual and gender-based violence included in the survey.

Four forms of sextortion	Other forms of SGBV
<ul style="list-style-type: none"> <li>○ Someone demanded sex or sexual activity* in exchange for (access to) water/toilet/bathing facilities</li> <li>○ Someone demanded sex or sexual activity as payment for debt owed for water/toilet/bathing facilities</li> <li>○ The respondent offered sex or sexual activity in exchange for water/toilet/bathing facilities</li> <li>○ The respondent offered sex or sexual activity as payment for debt owed for water/toilet/bathing facilities</li> </ul> <p>* e.g. kissing, fondling/groping, touching private parts</p>	<ul style="list-style-type: none"> <li>○ Someone forced the respondent into sexual intercourse by holding them down or hurting them in some way</li> <li>○ Someone attempted to force the respondent into sexual intercourse by holding them down or hurting them in some way</li> <li>○ Someone groped, fondled, or kissed the respondent</li> <li>○ Someone touched the respondent’s private parts</li> <li>○ Someone made suggestive remarks, gestures, jokes or written words of sexual nature</li> </ul>

in consultation with the local organizations who were worried that respondents would refuse to answer when recorded given the sensitive and criminal nature of the topic.

When interpreting the data collected in the survey it is important to remember that sextortion is a form of corruption that is very difficult to research “due to the social taboo frequently associated with sex crimes and the stigmatization of victims who speak up” (UNODC, 2020, p. 13) In addition, as sextortion is transactional in nature, survivors often are wrongly portrayed as willing participants, leading to further stigmatization and underreporting. Therefore, the number of sextortion incidents represented in this research paper does likely not cover the full extent of the phenomena.

Though water-sector specific data on sextortion is not widely available, based on similar studies on the phenomenon in the Middle East and North Africa, incidences of sextortion when accessing government services have been found to range from 23% (Lebanon) to 13% (Jordan). These rates are similar in Latin America and the Caribbean, where sextortion experiences have ranged between 30% of people in Barbados and 14% in Panama (Eldén et al., 2020). In 2020, 9% of respondents for Transparency International's Global Corruption Barometer Survey in Bangladesh had either experienced sextortion or knew someone who did (Vrushni, 2020).

While the WASH sector is a small part of government services and benefits offered to citizens across the world, it is a crucial one. We therefore expect that rates of sextortion in this sector would be within a similar range in the populations of developing countries. A *post-hoc* power calculation for the one-sample study where the response variable is dichotomous, where the estimated population incidence is 20%, the study group incidence is 4.4%, type I error tolerance is 0.05, and sample  $n = 1,200$  yields a statistical power of 100%. Given the exploratory nature of the study, along with the sensitive nature of the topic, we collected a sample of convenience while maintaining a rural-urban balance (approx. 50% of respondents for each) in the sample. Table 2 displays the descriptive statistics for the key variables considered in the study comparing respondents that experienced sextortion and those that did not.

To understand which factors, play a role in making women more vulnerable to experiencing sextortion in the WASH sector, we identify the respondent characteristics which increase the likelihood of experiencing a sextortion event. To this effect, we run a probit model where the response variable is binary taking the value of 1 when the respondent has suffered one of the sextortion instances outlined in Table 1, and 0 otherwise. We run a multivariate probit model in order to control for various demographic characteristics, such as age, and isolate the effects that three forms of vulnerability have on the likelihood of sextortion in the WASH sector in Bangladesh. We consider the following equation:

$$\hat{y} = \beta_0 + \beta_1 \text{poverty.score} + \beta_2 \text{hwise.score} + \beta_3 \text{literacy} + \beta_4 \text{impairment} + \beta_5 \cdot n x_{5:n} + \epsilon$$

Where:

- *poverty.score* is a continuous variable [0:100] constructed using a variation of the Lived Poverty Index and serves as a proxy for income,
- *hwise.score* is a continuous variable [0:36] which is an indicator of water insecurity measured using the Household Water Insecurity Experiences (ter) Scale,
- *literacy* is a binary variable which is 1 if the respondent can read and 0 otherwise,
- *impairment* is a binary variable which is 1 if the respondent reported having a visual, hearing, mobility/physical, mental, speech, or other impairment and 0 otherwise.

Other demographic control variables ( $x_{5:n}$ ) include age, marital status, and urban region.

Water insecurity in the 4 weeks prior to the survey date was measured using the Household Water Insecurity Experiences (HWISE) Scale (Young et al., 2019). The HWISE Scale is measured through 12 questions on experiences of water availability, accessibility, use, acceptability, and reliability. Each question contains four response options (never = 0, rarely = 1, sometimes = 2, often/always = 3) that are summed together at the household level. The scores can range between 0 and 36. The households of respondents with a HWISE Scale score of 12 or higher are considered water insecure.

The model was then used to test the following hypothesis

- H1: Respondents from high poverty score households are more likely to endure sextortion events.
- H2: Respondents from households with higher water vulnerability are more likely to endure sextortion events.
- H3: Respondents who are not literate are more likely to endure sextortion events.
- H4: Respondents who have any form of impairment are more likely to endure sextortion events.

The study is exploratory in nature and has some clear limitations in the methodological approach and the validity of the findings. The stratified purposeful sampling is statistically non-representative, which means that the findings of this study are not generalizable. However, our data still provides evidence for the existence of the problem and a clear indication which factors play a role in creating vulnerabilities to sextortion. The interviews and focus groups could not be recorded which limited the how the data could be used for analysis. As only summary reports were available, no direct quotes are used to support the findings of the quantitative analysis and the summaries likely do not reflect the same nuance as recordings. Given the sensitivity of the topic and the vulnerability of the victims it is important that future studies do include the voices of those that experience sextortion.

### 3. Results and discussion

Most of the households covered were male-headed, with three quarters of respondents (74.8%) reporting to be spouses of the head of household. The average household size was 5 and respondents came from a variety of ethnicities (Bengali, Chakma, Marma, Mru, Tanchangya, and Tripura). The majority (60.6%) of respondents rely on public taps/standpipes as their primary source of water, followed by boreholes (17.2%). Only 1% of respondents has direct access to water piped into their compound, yard, plot or dwelling. Some access water primarily through protected springs and wells (5.6%) or water piped to a neighbor's house (2%). The remainder of respondents (13.6%) indicated relying on unprotected sources, which include unprotected wells and springs, rainwater collection and surface water. Nevertheless, more than half of respondents (56.6%) indicate having access to water close to their homes, reporting it takes less than 5 min to walk to and from the water source (excluding queuing times). Queuing times were reported to be below 5 min by two thirds of respondents (68.6%).

The survey also shows that women regularly face violence when accessing WASH services. Roughly one third (29.4%) of

TABLE 2 Descriptive statistics of key variables.

Sextortion	Variable	Level	<i>n</i>	Perc	Mean
0			1,147	95.6	NA
1			53	4.4	NA
0	Age	18–25 years old	266	22.2	NA
0	Age	26–35 years old	842	70.2	NA
0	Age	51 or above	39	3.2	NA
1	Age	18–25 years old	4	0.3	NA
1	Age	26–35 years old	49	4.1	NA
0	Urban	Rural	576	48	NA
0	Urban	Urban	571	47.6	NA
1	Urban	Rural	24	2	NA
1	Urban	Urban	29	2.4	NA
0	Impaired	Impaired	190	15.8	NA
0	Impaired	Not impaired	957	79.8	NA
1	Impaired	Impaired	6	0.5	NA
1	Impaired	Not impaired	47	3.9	NA
0	Married	Married	980	81.7	NA
0	Married	Not married	167	13.9	NA
1	Married	Married	46	3.8	NA
1	Married	Not married	7	0.6	NA
0	pov_score		NA	NA	24.1
1	pov_score		NA	NA	31.5
0	Hwise		NA	NA	5.7
1	Hwise		NA	NA	10.7

the reported cases of SGBV involved sextortion, meaning the respondents were either demanded or offered sexual favors in return for water or sanitation services. 4.4% of respondents (53 individuals) reported experiencing at least one of the four forms of sextortion when accessing water, bathing facilities or toilet facilities. Of these, 10 respondents had experienced sextortion in multiple service areas.

As has been well-documented, social stigma, fear and shame prevent women from reporting sexual violence, including sextortion to the authorities. The transactional nature of sextortion renders it a particularly sensitive topic, as those experiencing it are often framed as complicit, despite the clear power imbalances at play (World Health Organization, 2005; UNODC, 2020). This may have influenced responses to this survey as well. Therefore, it is important to also consider how many respondents have heard about or witnessed sextortion. Whilst 4.4% of respondents reported a direct experience of sextortion, 8.4% indicate that they had heard of someone experiencing it or had witnessed an incident. These findings are also in line with the results of the Global Corruption barometer where 9% of respondents experienced or heard about sextortion in any sector in Bangladesh (Vrushni, 2020).

The following sections will present the findings of the survey in more detail. These will be supplemented with findings

from the summary reports of the interviews and focus groups where possible.

### 3.1. Where does sextortion take place

Among the 53 respondents who reported having experienced sextortion, 42 respondents (79.2%) reported experiencing sextortion whilst accessing water. Sextortion incidents when accessing bathing facilities accounted for about one-third (32.1%) of reported sextortion cases, with one indicating having experienced two forms of sextortion. Five respondents (9.4% of all sextortion incidents) reported experiencing sextortion whilst accessing toilet facilities, with no respondents indicating having experienced multiple forms.

The respondents reported having heard about or witnessed sextortion incidents at much higher rate than having directly experienced sextortion themselves. Given the shame and stigma around this form of corruption, it is not surprising that people are more hesitant to share their own experiences than those of others. Access to water is again the area with the highest number of sextortion incidents: 7.6% of respondent had heard about or witnessed someone experiencing sextortion when accessing

water vs. 3.5% direct experiences. Respondents also were aware of incidents that happened when others were accessing bathing facilities (2.1 vs. 1.4% direct experiences) and toilets (1.6 vs. 0.4% direct experiences).

Overall, the most common location of sextortion incidents was the WASH facilities themselves, accounting for 44.3% of all reported locations. About every fifth location where sextortion incidents occur is located between the affected respondent's house and the facility (20.3% of reported locations). Other locations were elsewhere indoors (13.9%), elsewhere outdoors (11.4%) and in the house (10.1%). It stood out that none of the few respondents with direct access to toilet facilities (in the form of flush to piped sewer systems or hanging toilets/latrines) reported having experienced sextortion. Direct access to toilet facilities in one's home was also highlighted by participants in focus group discussions as a key measure to reduce risks faced by women and girls. This is in line with research on sexual and gender-based violence that shows that open defecation increases women's risk to violence (e.g., Saleem et al., 2019). Notably, those who reported relying primarily on unprotected water sources were disproportionately affected by sextortion incidents. Whilst 13.6% of respondents relied on unprotected sources comprising surface water, rain water, unprotected wells and unprotected springs as their main source of water, these respondents accounted for a quarter (26.4%) of incidents reported.<sup>4</sup> At the same time, none of the respondents with direct access to water in their homes and compounds reported being exposed to sextortion.

In the focus groups, there was general agreement that key solutions and mitigating mechanisms include the provision of better water supply installations, such as deep tub wells, in proximity to houses. Affordability of the service is key, including safety nets for those who lack financial security. The installation of adequate toilet and sanitation facilities, if possible, at the household level, was also identified as an opportunity to mitigate risks. If toilet and washing facilities are shared, participants emphasized the importance of lockable doors and sufficient privacy. FGD participants in Rasulpur and Korail described a substantial improvement compared to the situation 10 years ago, linked to more adequate services at an affordable rate, and to landlords dealing with the utility providers.

### 3.2. Which factors make women more vulnerable to experiencing sextortion?

Arguably being female is not the only factor that potentially makes a person vulnerable to sextortion, yet little has been researched about who is more likely to experience sextortion and why. While sextortion occurs at all levels of society and all sectors (IAWJ, 2012; Carnegie, 2019; Feigenblatt, 2020), not all women experience it. Hence, there are intersecting factors that make women more vulnerable to sextortion. This study finds several factors that seem to increase a women's vulnerability to sextortion.

<sup>4</sup> The incident itself may have occurred at a different water source, since the question captures the respondent's main water source, not the source frequented at the time the sextortion incident happened.

The regression analysis (see Table 3) finds support for hypotheses 1, 2, and 3. Respectively, respondents from high-poverty households, from water insecure households and with low literacy levels are more likely to suffer sextortion. Table 3 reports the Average Marginal Effect (AME) coefficients for four probit models, three models testing each of the predictors mentioned previously separately with the control variables, and one with all three main independent variables tested in conjunction (model 5). In addition, model 1 tests the significance of the control variables with the main predictors absent. As shown in model 5, we find only limited support for impairment (H4) increasing the likelihood of sextortion, *ceteris paribus*. Across all other models, the magnitude and significance of all of the main independent variables (literacy, poverty, and water insecurity) remain relatively constant. All models were run using the R statistical programming software, AME coefficients were determined using the *margins* package. In addition, we find little evidence of multicollinearity among the predictors in the models ( $VIF < 5$ ).

Figure 2 plots the Marginal Effects for a Representative (MER) across various levels of our main independent variables, this was calculated using the *ggeffects* package. For example, a respondent with a poverty score of 39.7, without literacy skills, in a rural area and with an HWISE score of 32 would have a predicted probability of experiencing sextortion of 43%.<sup>[1]</sup> This compares to a 2% predicted probability of sextortion for a hypothetical respondent with an HWISE score of 0 who is literate and lives in an urban area and has a poverty score of 9.1. On average, a 10-point increase in HWISE scores increases the probability of experiencing a sextortion event by 4% *ceteris paribus*. Similarly, a 10-point increase in Poverty Scores increases the probability of sextortion by 1% on average while being literate reduces this probability by 2.7%.

The 95% confidence interval for this hypothetical respondent would be a predicted probability of sextortion between 23 and 66%

We thus find ample support for hypotheses 1, 2, and 3, where poverty, the lack of literacy and water insecurity are statistically significant predictors of an increased probability of sextortion when holding relevant demographic indicators constant.

Impairment of any kind (i.e., mobility, visual, mental, or hearing) don't predict a higher likelihood of enduring sextortion to a statistically significant level in neither the bivariate nor the multivariate models. However, this result should be interpreted carefully as only very few individuals with an impairment were included in the sample. In the following sections, we explore the vulnerabilities identified in the analysis in greater detail.

#### 3.2.1. The role of poverty

Previous studies show that women living in poverty are particularly vulnerable to sextortion, as they lack the means to pay with money and/or goods and therefore have to rely on their body as the only remaining currency (Merkle et al., 2017). The survey results also clearly show that poverty is a risk factor. In this study a variation of the Lived Poverty Index (Mattes, 2008) was used, which is a measure of deprivation of basic necessities, as a proxy for poverty at the household level. The results show that respondents who reported having experienced sextortion in accessing WASH

TABLE 3 Predictors of sextortion in WASH in Bangladesh.

	Dependent variable: sextortion				
	(1)	(2)	(3)	(4)	(5)
Literate		−0.036**			−0.027*
		(0.014)			(0.014)
pov_score			0.002***		0.001**
			(0.0005)		(0.001)
hwise				0.005***	0.004***
				(0.001)	(0.001)
Age	0.013	0.004	0.011	0.013*	0.005
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Married	0.002	0.001	0.001	0.011	0.010
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Impaired	−0.023*	−0.024	−0.033*	−0.007	−0.015
	(0.018)	(0.018)	(0.018)	(0.018)	(0.019)
Urban	0.012	0.005	−0.013	−0.004	−0.022
	(0.012)	(0.012)	(0.014)	(0.013)	(0.014)
Constant	−2.065***	−1.640	−2.381	−2.533	−2.371
Observations	1,200	1,200	1,200	1,198	1,198
Log likelihood	−214.842	−211.321	−207.722	−200.950	−195.856
Akaike inf. crit.	439.685	434.643	427.443	413.901	407.712

\* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .

services tend to come from households with a higher level of LPI, where a higher score indicates a more acute level of poverty.

The results clearly show that poverty exacerbates the risk of women to be exposed to sextortion (Figure 3). To an extent, this is not surprising. Previous research shows the majority of those without access to safe WASH services live in low-income countries. In addition poor households often do not have sufficient access to water to sustain livelihoods, e.g., through irrigated agriculture (Crow and Sultana, 2002). Women and girls are disproportionately affected as they are typically responsible for “water collection and household and community sanitation” (Adams et al., 2021, p. 85). Importantly, as Crow and Sultana (2002) argue, “gender relations interact with material inequalities to influence access to water” (p. 712) in three ways. For one, the already mentioned division of labor that typically puts the burden of domestic labor and childcare on women, who then have to decide which tasks need to be prioritized or potentially given to younger girls (e.g., the collection of water). Secondly, most productive assets are controlled or owned by men, which not only limits productive access to water for women but also means that most decision making related to access to water are still dominated by men. Lastly, the focus on the domestic role of women gives men more social and economic power which also influences where public investments are made, leaving those areas that are crucial or particularly dangerous for women at the margins (Crow and Sultana, 2002). Poverty also plays a crucial role in understanding corruption. The poor are disproportionately affected by corruption as it takes up a larger share of their income (Hunt and Laszlo, 2012; Justesen and Bjørnskov, 2014) and a

larger number of women than men live in (extreme) poverty (UNWomen, 2022). In addition, those living in poverty often are more dependent on public services, where women are often considered to be more vulnerable to corruption as they have less recourse and agency than men (UNODC, 2020, p. xiv). Gender also determines what roles men or women typically take on. As women often have more unpaid housework and care responsibilities they are more likely to interact with certain services providers (e.g., social services, health care, education, water; Chêne et al., 2010; Gerasymenko, 2020). Importantly, which roles and responsibilities are considered to be male or female is highly context specific. Women living in poverty are therefore not only more exposed to corruption in certain sectors, but also often lack the funds to pay for corruption. As a stakeholder highlighted in previous research: “Women’s experiences [of corruption] are shaped by the fact that, if they have nothing, they still have female bodies” (Merkle et al., 2017).

### 3.2.2. The role of water insecurity

Water insecurity has been shown to be linked to physical, emotional and intimate partner violence (House et al., 2014; Choudhary et al., 2020). Therefore, it can be expected that it also plays a role in explaining experiences of sextortion. Overall, 23% of respondents live in water insecure households according to the HWISE scale. Among the four regions in the dataset, Korail has the highest concentration of water insecure households (52.3%), followed by Bandarban (29.2%), DSCC (6.7%), and Satkhira (3.6%).



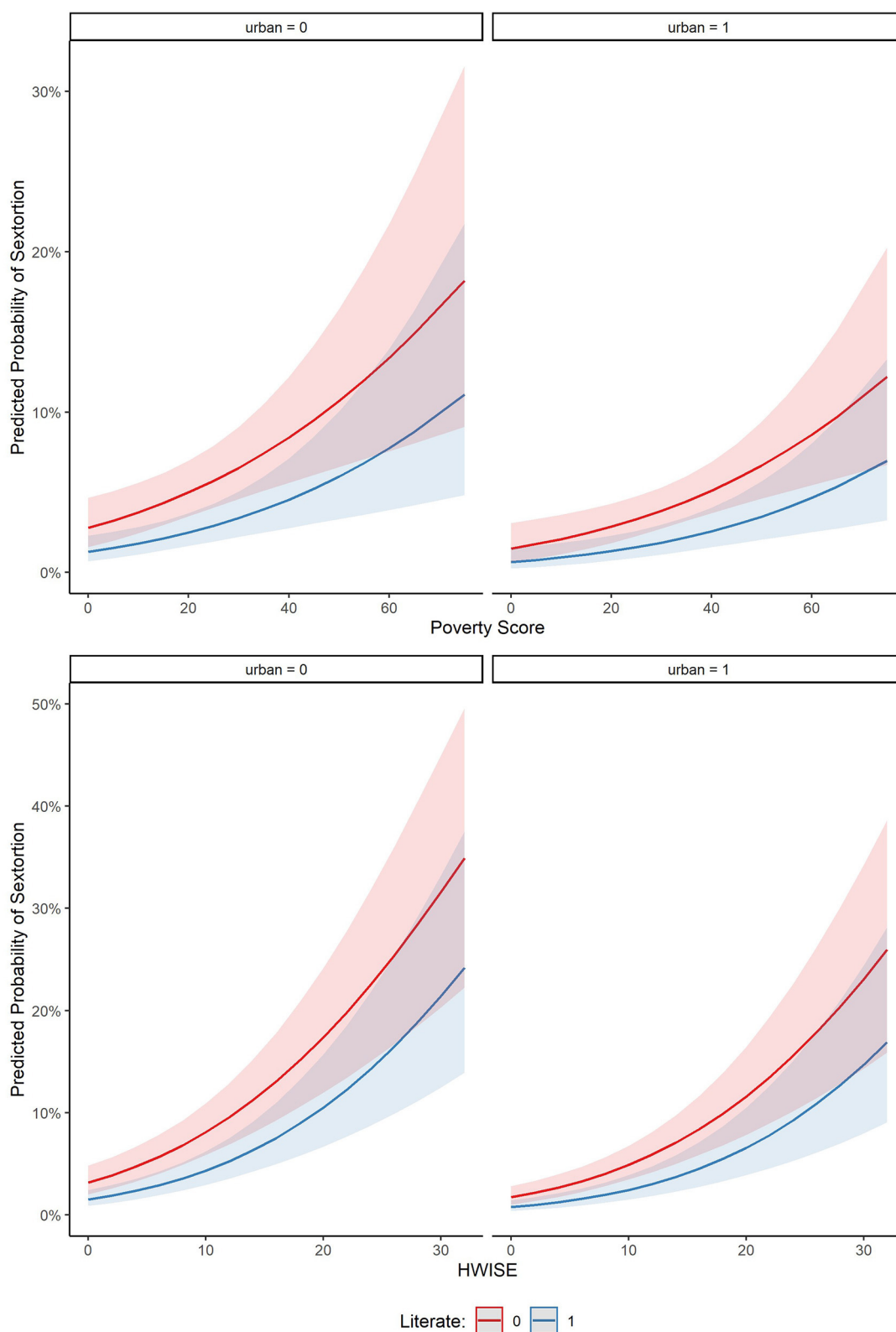
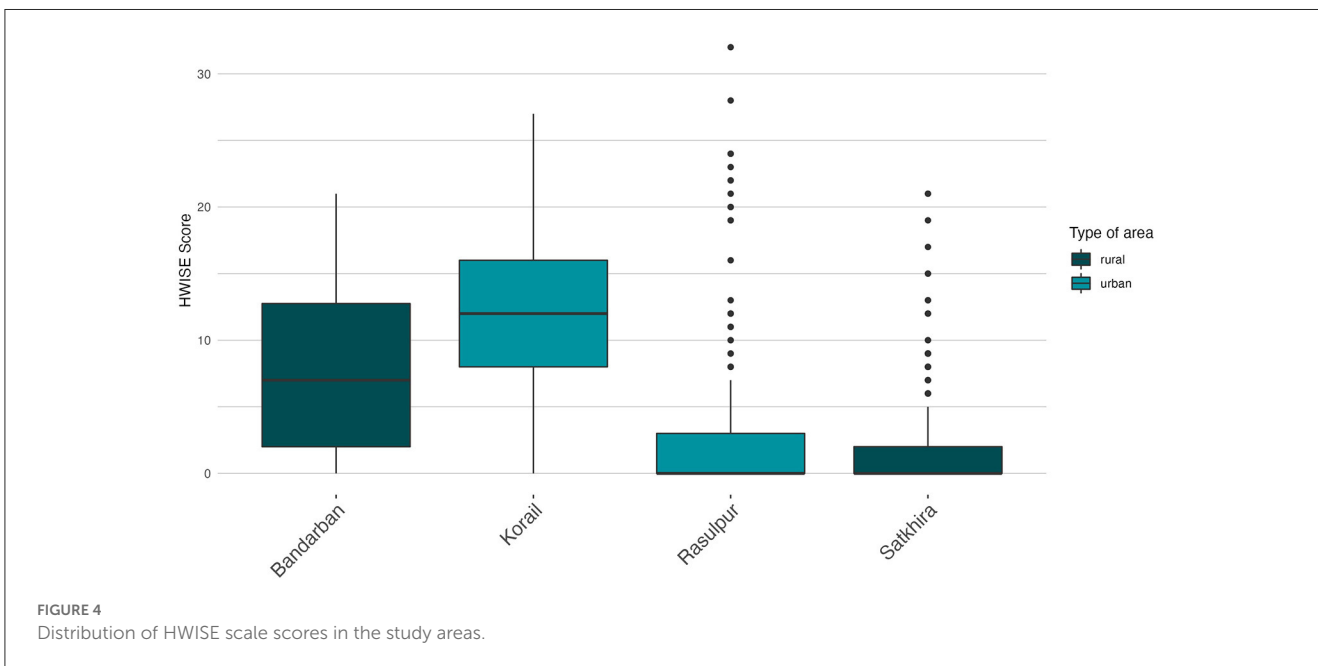
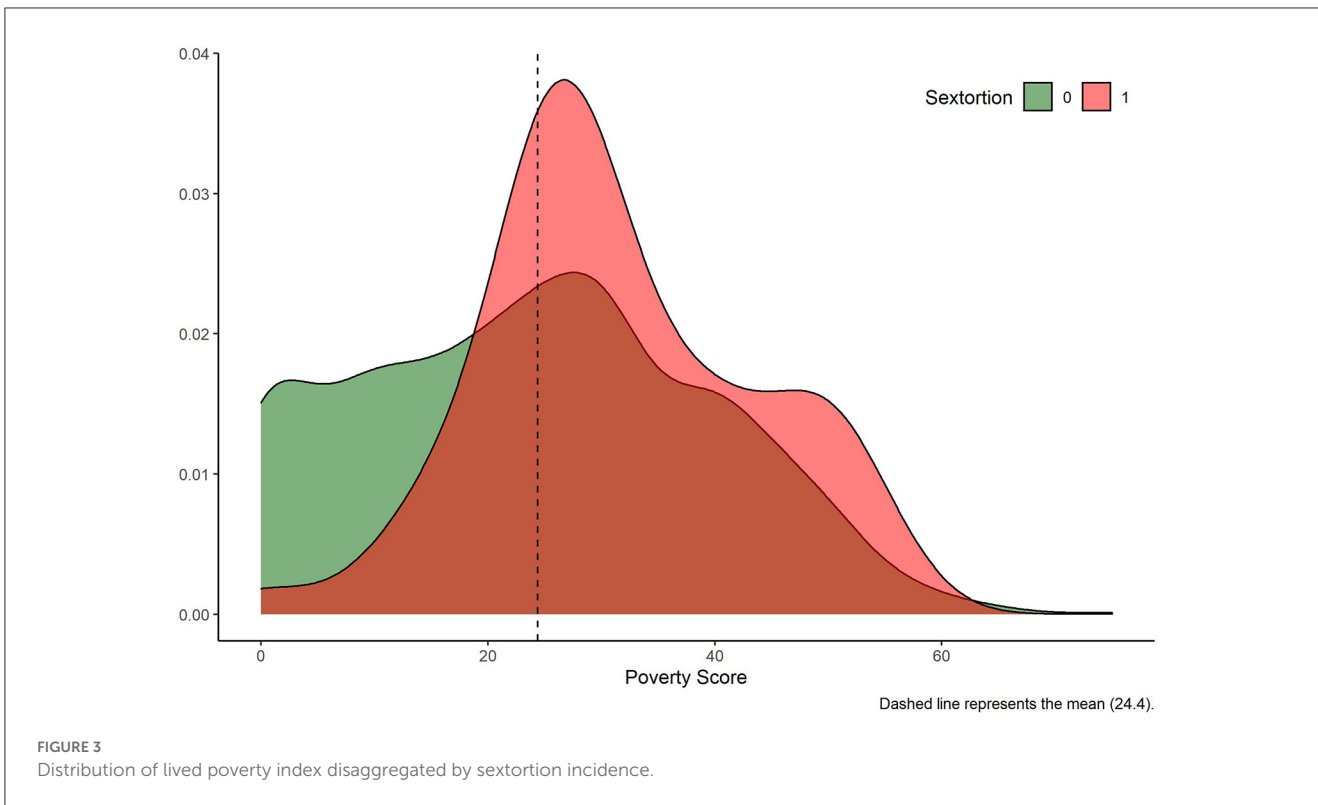


FIGURE 2  
Probit regression marginal effects.

The severity of water insecurity also tends to be higher in the study areas with higher concentration of water insecure households. The median of the HWISE Scale scores in Korail and Bandarban are

12 and 7, respectively, these are also the two areas with the highest number of sextortion incidents. This contrasts with Rasulpur and Satkhira, where the median scores are 0 (Figure 4).



Assessing water insecurity in the past 4 weeks illustrates that water stress is very acute for some. Nearly a third (29.3%) reported that they or someone in their household worried about sufficient access to water to cover all household needs three times or more within the last 4 weeks. Furthermore, 10% of the respondents reported that they or a member of their household had to pay a bribe, give a gift, or do a personal favor for an official working for the government or Water Service Provider

in order to get the needed services in the past 12 months. The water insecure households were also those who paid for bribes to receive WASH services more often in the past year, accounting for 57% of such experiences. This indicates that users from water insecure households often find themselves subject to the discretion of service provider officials, who may choose to extort bribes or sexual favors from these users in exchange for service.

Interestingly, the findings above stand in stark contrast to other SGBV incidents (excluding sextortion), which affect water secure and water insecure households proportionally to their representation in the sample. This shows that it is important to look at sextortion cases separately and not only as a form of SGBV, in order to understand vulnerabilities better.

### 3.2.3. The role of literacy and disability

The analysis highlights that the level of literacy impacts who is or is not vulnerable to sextortion. This is in line with previous research that finds that a “person’s access to resources, opportunities and choices, and power and voice directly impacts the vulnerability in relation to persons with entrusted authority on which the person depends” (Eldén et al., 2020, p. 51). The vast majority of sextortion incidents (72%, 38 cases out of 53) affect those who are not literate (cannot read and write). In comparison, those who are literate make up nearly half of the sample (48.9%) but account only for 28.3% of the reported sextortion incidents.

Previous research shows that “socially marginalized groups, such as people with disabilities who may have problems accessing latrines, or those from lower castes where entrenched discrimination may prohibit the use of common sanitation sources, may experience increased difficulties in safely meeting their daily water and sanitation needs” (Sommer et al., 2015, p. 106). At the same time persons with disabilities are more exposed to corruption than those without (Jenkins and McDonald, 2022). Yet, the survey for this study does not find a significant effect of disability on the likelihood of experiencing sextortion. However, this result should be interpreted with a lot of caution as the number of those survey respondents reporting that they suffer from at least one impairment (was very small and the survey only captured seven respondents who reported both an impairment and a sextortion experience. A more comprehensive analysis with a larger number of respondents with impairments might yield different results and help to shed light on the question if women with (multiple) impairments are more affected, and with regards to the relative prevalence of sextortion incidents.

### 3.3. (Gender) norms and power

By definition, corruption is about power, and especially in the case of sextortion, this involves a party that (systematically) has power over the other (Merkle, 2018). Especially in sextortion, “the power dynamic always represented a structural power asymmetry in favor of the public official receiving them” (UNODC, 2020, p. 44). Yet, the survey highlighted that the public often judges the women rather than the public official. On the question of how respondents view sexual relationships with providers of water or sanitation services, 39.7% indicated that it is not good that it happens, but placed the responsibility with the users, i.e., the women, rather than the powerful party, i.e., the public official. Only a third (33.4%) described people having sexual relationships with service providers as victims who need support. A minority (7.3%) described such relationships as normal and acceptable, whilst 6.5%

described them as beneficial for users because they get better services (no queuing, affordable water, free toilet/bathrooms, etc.).

The understanding that the occurrence of corruption is closely linked to gender norms is getting increasing attention in the literature (e.g., Echazu, 2010; Esarey and Chirillo, 2013; Merkle, 2018; Kubbe and Merkle, 2022). The discussion around gender norms in WASH is also not new, as the structural responsibilities around WASH are typically related to the traditional roles of women and girls, such as child care, cooking, cleaning and water collection (White et al., 2002; Fisher et al., 2017). Thus, “WASH access, use, and control are embedded in a complex web of socio-cultural and political networks that impose social relations at different scales” (Nunbogu and Elliott, 2022, p. 7). Sextortion, like sexual and gender-based violence, is particularly influenced by the gender norms that shape how society expects women and men to behave. This also impacts how being a survivor of sextortion is stigmatized and therefore how likely women are to report experiencing sextortion.

When asked in which circumstances the respondent thinks it is acceptable for a woman to build a sexual relationship with a water operator/vendor, the vast majority (92.2%) indicated that women should never form such a relationship in any circumstances. In light of this, stigma may prevent some women from reporting experiences of sextortion, and the real number of women affected may be higher than is reflected in surveys such as the one conducted here. While no research has been done estimating how sextortion is underreported in surveys, research on SGBV shows that a multitude of factors, such as stigma and shame (Kishor and Johnson, 2005; World Health Organization, 2005), the expected impunity of perpetrators (e.g. Hynes et al., 2004), or the normalization of such violence (Fugate et al., 2005) prevent women from reporting (Palermo et al., 2014).

Nevertheless, some respondents conceded certain scenarios within which they think it acceptable for a woman to build a sexual relationship with the water operator/vendor, in particular when this is the only means to get water. A few also mentioned that factors such as care responsibilities for sick or elderly people, a lack of enough water for cooking or household chores, or long queuing times could justify entering into such relationships. This is once again in line with gendered expectations that women should put their care responsibilities above all else. Studies on Bangladesh also show that women do not only face a risk of violence outside the home but also inside the home, for example when they cannot fulfill their roles in the household due to water insecurity (Pommells et al., 2018; Collins et al., 2019). This additional burden likely forces women to expose themselves to dangerous situations when accessing water and can be expected to also make them less likely to report abuse experienced when fetching water.

The questions of how individuals and communities respond to sextortion and whether perpetrators are held accountable are strongly impacted by social norms, where gender norms that see women in subordinate positions and accept the dominant position of men sustain gender-based violence (Massey, 2013; Banarjee, 2020; Dery, 2021). The survey clearly shows the social stigma for survivors of sextortion, where 39.6% of respondents who experienced sextortion state that it damages the family honor (Figure 5).

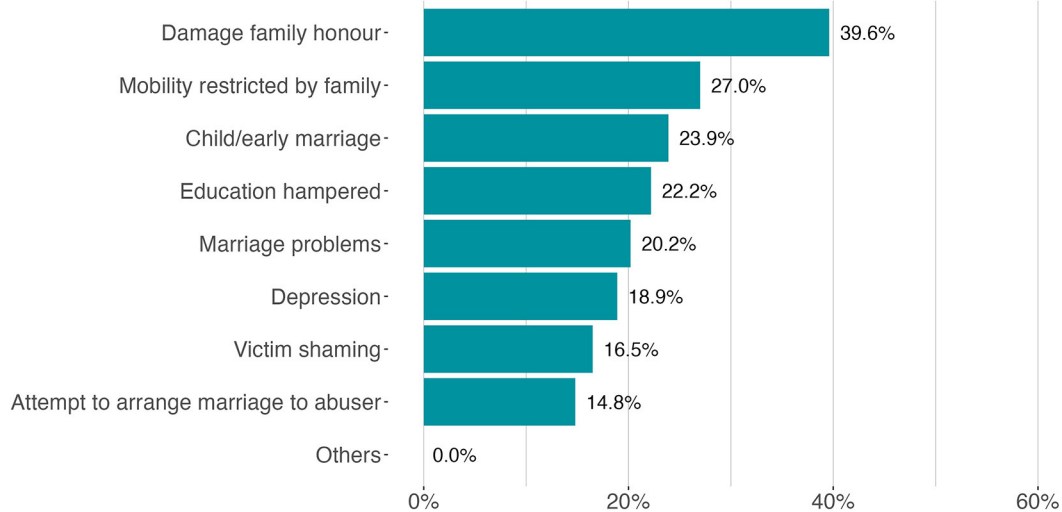


FIGURE 5  
Expected consequences of sextortion incidents for those who experienced sextortion.

A large number of respondents indicated that survivors should report to their family members (35.3%), but only few thought survivors should report to the police (11.7%).

This is likely linked to the fear of damaging the family honor, but also an expectation that the police will not be helpful. In Bangladesh, corruption plays an important role in determining who has access to the judicial system, and “[t]he demand for money for government-provided legal representation puts those without power or financial means at an even further disadvantage” (Humans Rights Watch, 2020, p. 47). As additional obstacles, “when women or girls do go to the police after an assault, they frequently face obstruction from police officers. This can range from disbelief, refusal to file reports, and corruption, to negligence toward investigations. Women rarely trust that the police will offer them protection or that they will uphold the rule of law” (Humans Rights Watch, 2020, p. 38). At the same time, women face severe pressure from their communities to not report sextortion, which was highlighted in the focus groups.

In line with this, of the respondents that had experienced sextortion, several did confront their perpetrator but very few reported the incident to the authorities. Of those who experienced sextortion when accessing water, 45% confronted their perpetrator, compared to 20% for toilets and 41% for bathing. In the case of sextortion incidents related to water, 40% asked for help from family, compared to only 20% (1 individual) in the case of toilets, and 35% in the case of bathing. Help from a friend was also solicited by 17% of respondents in the case of water and 6% in the case of bathing. Only 5% reported the incident to the police in the case of water, and none of those who had experienced sextortion when accessing toilets or bathing made use of police or a helpline to report. For reporting cases, the focus group highlighted that affected individuals in some areas (Rasulpur and Korail) prefer using local structures and councilors, rather than reporting to the police, due to concerns about corruption within the police force.

In the focus groups, victim-blaming was mentioned as a key factor contributing to the deteriorating physical and mental health of affected individuals, some of whom commit suicide. Additionally, the strain on relationships and marriages was frequently mentioned as an adverse consequence and a reason why some affected individuals may opt to not report incidents. This would then also explain why the survey recorded 41 instances where respondents opted not to share their experience with family. The main reasons cited were that the family/partner would react excessively and become worried, fear that the victim’s freedom of movement would be restricted, fear that the family would hold them responsible for the incident, and that sextortion incidents should be solved by the victim herself. The experiences of those that did share their sextortion experience shows that these fears are not unfounded. Nearly half of those who did decide to disclose to their family an experience of sextortion when accessing water (7 out of 15) indicated that their family reacted by restricting their movement. The share was even higher among those who had experienced sextortion when accessing a bathing facility, with 7 out of 8 indicating that their movement was subsequently restricted. But respondents also had an opportunity to discuss how to deal with the situation (11 out of 15 for water, 3 out of 8 for bathing). One respondent indicated that their family took them for professional counseling. Where actions were taken after discussing incidents with members of the household, these included taking the case to the area chief (11 cases), discussing between families (8) and taking the case to a religious leader (2 cases).

## 4. Conclusion

Access to water is a life-sustaining requirement and a human right. Everyone should be able to obtain access without needing to fear exploitation and/or abuse. This study clearly shows the importance of including sextortion into discussions around gender

and access to WASH. The data highlights that sextortion occurs in all assessed areas of Bangladesh. The study also provides important information about which factors make women more vulnerable to experiencing sextortion. The quantitative analysis finds that women who live in poverty, are members of water insecure households or are illiterate face a higher risk of being sexually extorted when accessing WASH services. The survey also clearly indicates that among the three WASH services examined, the risk of sextortion is the highest in accessing water, which accounts for four out of every five reported incidents. The regression results do not point to a statistically significant relation between the examined impairments of respondents and the prevalence sextortion in accessing WASH services, though in light of other literature suggesting a relevant link and the low respondent numbers with reported impairments, this finding warrants further investigation.

There is considerable stigma attached to the topic of sextortion, therefore the reported prevalence in this study is likely to underestimate the true extent of the problem. The study has shown that a lack of trust in authorities and their ability or preparedness to prosecute perpetrators leads to only a small proportion of incidents being reported to the police. Whilst public opinion largely considers sexual relations with water providers to be bad, more respondents placed the responsibility with users, rather than regarding them as victims.

Several key recommendations can be identified from the findings. Important for both academic research and policy makers is the finding that sextortion disproportionately affects water insecure households while other SGBV incidents (excluding sextortion) affect water secure and water insecure households proportionally to their representation in the sample. This demonstrates how important is to include the corruption element in the analysis and consider sextortion separately and not simply as a form of SGBV. For researchers, this implies that more research is needed specifically on sextortion and which factors make individuals more vulnerable to this form of corruption. For policy maker, the message is clearly that sextortion needs to be addressed with separate policy tools and that it is not sufficient to consider it covered under general SGBV policies.

Advocacy with governments and service providers is key. Adequate mitigation mechanisms can only be designed and implemented by keeping the issue of sextortion on the radar of decision-makers and operators. In the focus groups, respondents emphasized the provision of better water supply installations in proximity to houses as a principal solution. Where resources are lacking to implement such solutions, other monitoring and accountability mechanisms become even more crucial to protect users from the possibility of exploitative practices, such as paying bribes or sextortion. Besides better access to water and sanitation, investment in human capital and capabilities is also necessary to reduce risks, especially in light of the heightened vulnerability to sextortion identified among those who are not (fully) literate. Just as key is awareness raising on the topic at the community level, jointly with the establishment of safe and adequate reporting channels. Where authorities are not trusted, other actors, including NGOs, faith-based organizations and CSOs, may be able to offer support to survivors and continue to raise attention to the issue with authorities and service providers.

Addressing gender norms that exacerbate vulnerabilities to sextortion as well as prevent victims from reporting also need to be addressed. Here it is advisable to focus on joined efforts of women's empowerment and anti-corruption initiatives.

Further research on this topic in other countries, and in particular in contexts with water insecure households, including slums, informal settlements, refugee camps, is crucial to raise attention to sextortion and to hold service providers accountable. In particular, large-scale surveys using purposeful sampling methods could help delineate the prevalence of sextortion across minority groups, such as ethnic minorities or sexual minorities. Further research could also expand the focus by including men, boys and non-binary persons in the sampling.

To meet the goals set under SDG6 of the 2030 Agenda for Sustainable Development, it is crucial to identify the various risks and challenges that continue to prevent billions from accessing safe and affordable water and sanitation. This paper has sought to contribute evidence and insights into one such risk, sextortion, which continues to obstruct universal access to water and sanitation.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the Water Integrity Network ([info@win-s.org](mailto:info@win-s.org)), without undue reservations.

## Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The participants provided their oral informed consent to participate in this study.

## Author contributions

Data collection was designed and overseen by UA and conducted by SR and ZH. Data was cleaned and analyzed by UA, DG, AS, and OM. The article was written by OM, with support of the other authors. All authors were involved in multiple rounds of revisions and rewriting to get to the final version of the paper. All authors contributed to the article and approved the submitted version.

## Acknowledgments

We are grateful to the Change Initiative (CI) and Development Organization of the Rural Poor (DORP)—partner organizations for their support of all aspects of the research project, including for their expertise and successfully conducting primary data collection despite the enormous difficulties posed by the global pandemic. We especially extend our gratitude to M. Zakir Hossain Khan (CI), SR (CI), ZH (DORP), Jesmin Moly (DORP), Wokeya Yeasmin Farha (CI), Mohaimenul Islam (CI), Rumana Ali (Independent

Gender Expert), and as well as all the enumerators who collected data on the ground. We are also thankful to all the reviewers who reviewed the first analysis of this paper for their timely reviews and insightful feedback: Dr. Liza Debevec (GWP), Dr. Doris Aja-Eke (Dublin City University), Dr. Robert Gillanders (Dublin City University), Sareen Adilla (ANEW), Barbara Schreiner (WIN), Tasneem Balasinorwala (WIN), Rebecca Sands (WIN), and Binayak Das (WIN).

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships

that could be construed as a potential conflict of interest.

## Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

## References

- Adams, E. A., Adams, Y. J., and Koki, C. (2021). Water, sanitation, and hygiene (WASH) insecurity will exacerbate the toll of COVID-19 on women and girls in low-income countries. *Sustainabil. Sci. Pract. Policy* 17, 85–89. doi: 10.1080/15487733.2021.1875682
- Ahmed, M. U., Majumder, A. K., Hossain, M. S., and Nayeem, A. A. (2018). Assessment of the microbiological quality of rain water: a case study of selected water scarce area in Bangladesh. *Stamford J. Microbiol.* 8, 24–26. doi: 10.3329/sjm.v8i1.42434
- Banarjee, S. (2020). Identifying factors of sexual violence against women and protection of their rights in Bangladesh. *Aggress. Violent Behav.* 52, 101384. doi: 10.1016/j.avb.2020.101384
- Banglapedia (2021). *Kamrangirchar Thana*. Available online at: [https://en.banglapedia.org/index.php?title=Kamrangirchar\\_Thana](https://en.banglapedia.org/index.php?title=Kamrangirchar_Thana)
- BRAC (2014). *Korail Fact Sheet*. Available online at: <https://www.brac.net/sites/default/files/factsheet/new/Korail.pdf>
- Buisson, M.-C., Curnow, J., and Naz, F. (2017). The gender gap between water management and water users: evidence from Southwest Bangladesh. *South Asian Water Stud.* 5, 28–41.
- Caarten, A. B., Heugten, L., and van Merkle, O. (2022). The intersection of corruption and gender-based violence: examining the gendered experiences of sextortion during migration to South Africa. *Afr. J. Reproduct. Health* 26, 45–54. doi: 10.29063/ajrh2022/v26i6.6
- Camellia, S., Khan, N., and Naved, R. (2012). *Violence Against Unmarried Adolescent Girls. Growing up Safe and Healthy (SAFE): Baseline Report on Sexual and Reproductive Health and Rights and Violence against Women and Girls in Dhaka Slums*.
- Carnegie, S. (2019). *Sextortion: A Crime of Corruption and Sexual Exploitation*. International Bar Association. Available online at: <https://www.ibanet.org/MediaHandler?id=E5E451C2-A883-4518-B0ED-5AAAEBCDD5AA>
- Chakma, B., Dewan, J., and Bikash Chakma, S. (2021). *Water Scarcity Worsens Hill People's Woes*. Prothomalo Alo. Available online at: <https://en.prothomalo.com>
- Chêne, M., Clench, B., and Fagan, C. (2010). "Corruption and gender in service delivery: the unequal impacts," in *Transparency International Working Paper* (Berlin).
- Choudhary, N., Brewis, A., Wutich, A., and Udas, P. B. (2020). Sub-optimal household water access is associated with greater risk of intimate partner violence against women: evidence from Nepal. *J. Water Health* 18, 579–594. doi: 10.2166/wh.2020.024
- Collins, S. M., Mbullo Owuor, P., Miller, J. D., Boateng, G. O., Wekesa, P., Onono, M., et al. (2019). 'I know how stressful it is to lack water!' Exploring the lived experiences of household water insecurity among pregnant and postpartum women in western Kenya. *Global Public Health* 14, 649–662. doi: 10.1080/17441692.2018.1521861
- Crow, B., and Sultana, F. (2002). Gender, class, and access to water: three cases in a poor and crowded delta. *Soc. Nat. Resour.* 15, 709–724. doi: 10.1080/08941920290069308
- Dery, I. (2021). "Give her a slap or two... She might change": negotiating masculinities through intimate partner violence among rural Ghanaian men. *J. Interpers. Violence* 36, 9670–9690. doi: 10.1177/0886260519869066
- Echazu, L. (2010). Corruption and the balance of gender power. *Rev. Law Econ.* 6, 59–74. doi: 10.2202/1555-5879.1397
- Eldén, A., Calvo, D., Bjarnegård, E., Lundgren, S., and Jonsson, S. (2020). *Sextortion: Corruption and Gender-Based Violence (EBA Report 2020:06)*. The Expert Group for Aid Studies (EBA).
- Esarey, J., and Chirillo, G. (2013). "Fairer sex" or purity myth? corruption, gender, and institutional context. *Polit. Gender* 9, 361–389. doi: 10.1017/S1743923X13000378
- Fattah, K. N., and Camellia, S. (2020). Gender norms and beliefs, and men's violence against women in rural Bangladesh. *J. Interpers. Violence* 35, 771–793. doi: 10.1177/0886260517690875
- Feigenblatt, H. (2020). *Breaking the Silence Around Sextortion: The Links Between Power, Sex and Corruption*. Transparency International. Available online at: <https://www.transparency.org/en/publications/breaking-the-silence-around-sextortion>
- Fisher, J., Cavill, S., and Reed, B. (2017). Mainstreaming gender in the WASH sector: dilution or distillation? *Gender Dev.* 25, 185–204. doi: 10.1080/13552074.2017.1331541
- Fugate, M., Landis, L., Riordan, K., Naureckas, S., and Engel, B. (2005). Barriers to domestic violence help seeking: implications for intervention. *Violence Against Women* 11, 290–310. doi: 10.1177/1077801204271959
- Gerasyenko, G. (2020). Gender analysis of anti-corruption policy: case study of Ukraine. *Int. J. Civil Serv. Reform Pract.* 5
- Gonsalves, G. S., Kaplan, E. H., and Paltiel, A. D. (2015). Reducing sexual violence by increasing the supply of toilets in Khayelitsha, South Africa: a mathematical model. *PLoS ONE* 10, e0122244. doi: 10.1371/journal.pone.0122244
- Hirve, S., Lele, P., Sundaram, N., Chavan, U., Weiss, M., Steinmann, P., et al. (2014). Psychosocial stress associated with sanitation practices: experiences of women in a rural community in India. *J. Water Sanit. Hyg. Dev.* 5, 115–126. doi: 10.2166/washdev.2014.110
- House, S., Ferron, S., Sommer, M., and Cavill, S. (2014). *Violence, Gender and WASH: A Practitioner's Toolkit-Making Water, Sanitation and Hygiene Safer Through Improved Programming and Services*. London: WaterAid/SHARE.
- Human Rights Watch (2020). "I Sleep in My Own Deathbed": *Violence Against Women and Girls in Bangladesh: Barriers to Legal Recourse and Support*. Human Rights Watch. Available online at: <https://www.hrw.org/report/2020/10/29/i-sleep-my-own-deathbed/violence-against-women-and-girls-bangladesh-barriers>
- Hunt, J., and Laszlo, S. (2012). Is Bribery really regressive? Bribery's costs, benefits, and mechanisms. *World Dev.* 40, 355–372. doi: 10.1016/j.worlddev.2011.06.001
- Hynes, M., Ward, J., Robertson, K., and Crouse, C. (2004). A determination of the prevalence of gender-based violence among conflict-affected populations in east timor. *Disasters* 28, 294–321. doi: 10.1111/j.0361-3666.2004.00260.x
- IAWJ (2012). *Stopping the Abuse of Power Through Sexual Exploitation: Naming, Shaming and Ending Sextortion*. International Association of Woman Judges. Retrieved from: [http://www.iawj.org/iawj\\_international\\_toolkit\\_final.pdf](http://www.iawj.org/iawj_international_toolkit_final.pdf)
- Jadhav, A., Weitzman, A., and Smith-Greenaway, E. (2016). Household sanitation facilities and women's risk of non-partner sexual violence in India. *BMC Public Health* 16, 1–10. doi: 10.1186/s12889-016-3797-z
- Jenkins, M., and McDonald, E. (2022). *Corruption and the Equal Enjoyment of Rights for Persons with Disabilities [U4Helpdesk Answer]*. U4 Anti-Corruption Resource Center. Available online at: <https://www.u4.no/publications/corruption-and-the-equal-enjoyment-of-rights-for-persons-with-disabilities>
- Justesen, M. K., and Bjørnskov, C. (2014). Exploiting the poor: bureaucratic corruption and poverty in Africa. *World Dev.* 58, 106–115. doi: 10.1016/j.worlddev.2014.01.002
- KEWASNET and ANEW (2020). *Sex for Water Project: Promoting Safe Space for Girls and Young Women in Kibera Project-Final Baseline Survey Report*. Kenya Water and Sanitation Civil Society Network and African Civil Society Network on Water

- and Sanitation. Available online at: <https://kewasnet.co.ke/download/sex-for-water-project-promoting-safe-space-for-girls-and-young-women-in-kibera-final-report-2020/?wpdmdl=1669&refresh=624eb03129fbc1649324081>
- Kishor, S., and Johnson, K. (2005). Profiling domestic violence: a multi-country study. *Stud. Family Plann.* 36, 259–261. doi: 10.1111/j.1728-4465.2005.00068.x
- Kubbe, I., and Merkle, O. (eds.). (2022). *Norms, Gender and Corruption: Understanding the Nexus*. Cheltenham: Edward Elgar Publishing.
- Kulkarni, S., O'Reilly, K., and Bhat, S. (2017). No relief: lived experiences of inadequate sanitation access of poor urban women in India. *Gender Dev.* 25, 167–183. doi: 10.1080/13552074.2017.1331531
- Livani, T., Ahmed, R., and Ahmed, S. O. (2021). *Enhancing Women's Access to Water, Sanitation, and Hygiene in Bangladesh*. World Bank Blogs. Available online at: <https://blogs.worldbank.org/endpovertyinsouthasia/enhancing-womens-access-water-sanitation-and-hygiene-bangladesh>
- Massey, D. (2013). *Space, Place and Gender*. Hoboken, NJ: John Wiley and Sons.
- Mattes, R. (2008). "The material and political bases of lived poverty in Africa: insights from the afrobarometer," in *Barometers of Quality of Life Around the Globe: How Are We Doing?* eds V. Moller, D. Huschka, and A. C. Michalos (Dordrecht: Springer), 161–185. doi: 10.1007/978-1-4020-8686-1\_7
- Merkle, O. (2018). *The Myth of Gender-Neutral Power: Corruption and Gender Norms*. Maastricht: Boekenplan.
- Merkle, O. (2020). "Gender and corruption: what we know and ways forward," in *A Research Agenda for Studies of Corruption*, eds A. Mungiu-Pippidi and P. M. Heywood (Cheltenham: Edward Elgar Publishing Limited), 75–89. doi: 10.4337/9781789905007.00013
- Merkle, O., Reinold, J., and Siegel, M. (2017). *A Gender Perspective on Corruption Encountered During Forced and Irregular Migration*. GIZ Anti-Corruption and Integrity Programme. Available online at: <https://i.unu.edu/media/migration.unu.edu/attachment/4665/A-Gender-Perspective-on-Corruption-Encountered-during-Forced-and-Irregular-Migration.pdf>
- Murshid, N. S. (2022). Structural and relational oppression of women: the association between open defecation and partner violence in Bangladesh. *J. Gender Based Violence* 1, 1–19. doi: 10.1332/239868022X16558143159507
- Nahar, P., Van Reeuwijk, M., and Reis, R. (2013). Contextualising sexual harassment of adolescent girls in Bangladesh. *Reprod. Health Matters* 21, 78–86. doi: 10.1016/S0968-8080(13)41696-8
- Nunbogu, A. M., and Elliott, S. J. (2022). Characterizing gender-based violence in the context of water, sanitation, and hygiene: a scoping review of evidence in low- and middle-income countries. *Water Security* 15, 100113. doi: 10.1016/j.wasec.2022.100113
- Palermo, T., Bleck, J., and Peterman, A. (2014). Tip of the iceberg: reporting and gender-based violence in developing countries. *Am. J. Epidemiol.* 179, 602–612. doi: 10.1093/aje/kwt295
- Pommells, M., Schuster-Wallace, C., Watt, S., and Mulawa, Z. (2018). Gender violence as a water, sanitation, and hygiene risk: uncovering violence against women and girls as it pertains to poor WaSH access. *Violence Against Women* 24, 1851–1862. doi: 10.1177/1077801218754410
- Pouramin, P., Nagabhatla, N., and Miletto, M. (2020). A systematic review of water and gender interlinkages: assessing the intersection with health. *Front. Water* 2, 6. doi: 10.3389/frwa.2020.00006
- Russo, N. F., and Pirlott, A. (2006). Gender-based violence. *Ann. N. Y. Acad. Sci.* 1087, 178–205. doi: 10.1196/annals.1385.024
- Saleem, M., Burdett, T., and Heaslip, V. (2019). Health and social impacts of open defecation on women: a systematic review. *BMC Public Health* 19, 158. doi: 10.1186/s12889-019-6423-z
- Sandelowski, M. (2000). Combining qualitative and quantitative sampling, data collection, and analysis techniques in mixed-method studies. *Res. Nurs.* 23, 246–255. doi: 10.1002/1098-240X(200006)23:3<246::AID-NUR9>3.0.CO;2-H
- Sommer, M., Ferron, S., Cavill, S., and House, S. (2015). Violence, gender and WASH: spurring action on a complex, under-documented and sensitive topic. *Environ. Urban.* 27, 105–116. doi: 10.1177/0956247814564528
- Stålgren, P. (2015). *Corruption in the Water Sector: Causes, Consequences and Potential Reform (Swedish Water House Policy Brief No. 4)*. SIWI. Available online at: [https://siwi.org/wp-content/uploads/2015/03/20060906171639corruptionpb\\_low-3.pdf](https://siwi.org/wp-content/uploads/2015/03/20060906171639corruptionpb_low-3.pdf)
- Transparency International (2020). *Global Corruption Barometer Asia-Bangladesh*. Available online at: <https://www.transparency.org/en/gcb/asia/asia-2020/results>
- Transparency International Bangladesh (2020). *Mainstream Integrity and Corruption Prevention to Ensure Gender Equality and Women's Rights*. Available online at: <https://www.ti-bangladesh.org/beta3/index.php/en/activities/6032-mainstream-integrity-and-preventing-corruption-to-ensure-gender-equality-and-women-s-rights-tib-on-int-l-women-s-day>
- Transparency International and Equal Rights Trust (2021). *Defying Exclusion: Stories and Insights on the Links between...*. Available online at: <https://www.transparency.org/en/publications/defying-exclusion-corruption-discrimination>,
- UNDP Bangladesh and PTIB (2022). *Gender-Based Violence: Taking Stock of Bangladesh's Shadow Pandemic*. UNDP. Available online at: <https://www.undp.org/bangladesh/blog/gender-based-violence-taking-stock-bangladesh%E2%80%99s-shadow-pandemic>,
- UNDP-SIWI Water Governance Facility (2017). *Women and Corruption in the Water Sector: Theories and Experiences from Johannesburg and Bogotá*. (WGF Report No. 8). SIWI.
- UNODC (2020). *The Time Is Now- Addressing the Gender Dimension of Corruption*. Available online at: [https://www.unodc.org/documents/corruption/Publications/2020/THE\\_TIME\\_IS\\_NOW\\_2020\\_12\\_08.pdf](https://www.unodc.org/documents/corruption/Publications/2020/THE_TIME_IS_NOW_2020_12_08.pdf)
- UNWomen (2022). *Poverty Deepens for Women and Girls, According to Latest Projections*. UN Women Data Hub. Available online at: <https://data.unwomen.org/features/poverty-deepens-women-and-girls-according-latest-projections>
- Vrushji, J. (2020). *Global Corruption Barometer Asia 2020*. Transparency International. Available online at: [https://files.transparencycdn.org/images/GCB\\_Asia\\_2020\\_Report\\_Web\\_final.pdf](https://files.transparencycdn.org/images/GCB_Asia_2020_Report_Web_final.pdf)
- White, G. F., Bradley, D. J., and White, A. U. (2002). Drawers of water: domestic water use in East Africa. *Bull. World Health Organ.* 80, 63–73.
- WHO and UNICEF (2021). *Progress on Household Drinking Water, Sanitation and Hygiene 2000-2020: Five Years into the SDGs*. WHO and UNICEF. Available online at: <https://www.who.int/publications/i/item/9789240030848>
- World Bank (2013). *World Development Report 2014: Risk and Opportunity- Managing Risk for Development*. The World Bank.
- World Bank (2019). *Women in Water Utilities: Breaking Barriers*. World Bank.
- World Health Organization (2005). *WHO Multi-Country Study on Women's Health and Domestic Violence Against Women: Initial Results on Prevalence, Health Outcomes and Women's Responses*. World Health Organization.
- World Health Organization (n.d.). *Violence Info - Sexual violence*. Available online at: <http://apps.who.int/violence-info/sexual-violence> (Retrieved May 1, 2022).
- Young, S. L., Boateng, G. O., Jamaluddine, Z., Miller, J. D., Frongillo, E. A., Neilands, T. B., et al. (2019). The Household Water InSecurity Experiences (HWISE) Scale: development and validation of a household water insecurity measure for low-income and middle-income countries. *BMJ Global Health* 4, e001750. doi: 10.1136/bmjgh-2019-001750
- Zinnbauer, D., and Dobson, R. (eds.). (2008). *Global Corruption Report 2008: Corruption in the Water Sector*. Transparency International.