SLH Learning Paper

Uncovering WASH Realities Through PhotoVoice

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Front cover image:

Ant on Foot: *'You see the ant on my foot. There are constantly ants and flies crawling all over my body, but I can't feel them or shake them off. It is hot and that is why the ants are there, but I can tell you why the flies are present and that is what makes me the most uncomfortable and sad. I can't keep myself clean and because I can't be clean, the flies come and sit on me all day. No matter how much we clean the area around me, the smell and dirt remain and then the flies come and sit on me. They know when I am dirty.'*

(*Credit:* Bahadur Mohammad Yaqoob Unar)

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Executive summary

This *SLH Learning Paper* explores the potential use of PhotoVoice in the water, sanitation and hygiene WASH sector for programme-based learning, research and advocacy. PhotoVoice is a photographic technique that enables people to identify, represent and enhance their communities. Cameras are given to people in communities to record their issues and bring about social action and change. The paper draws on existing uses of PhotoVoice within the WASH sector to share learning on its successes and failures, and provides recommendations for using PhotoVoice in WASH moving forward.

The content for this paper was generated through desk-based research. The research was conducted between September and November 2019, and involved a search of grey and academic literature, and Skype and email interviews with WASH researchers and practitioners who had used PhotoVoice in research and/or programming and could reflect on their experiences of using the method.

There are good examples of the use of PhotoVoice across Africa, South Asia and the Pacific since 2008, as outlined in this paper. PhotoVoice has been used to explore wide ranging topics, particularly those which are often taboo, neglected and affect marginalised groups in the global South. It has contributed to widening understandings of equality, non-discrimination and inclusion in WASH through issues of disability, incontinence, menstrual hygiene and the perimenopause. PhotoVoice has also been valuable to gaining knowledge about factors affecting access to WASH and WASH behaviours.

PhotoVoice is useful to support learning in WASH, through being able to: understand the relative importance of WASH in people's lives; identify the barriers and areas of concern in access to WASH; work with small groups of marginalised people to explore taboo topics; identify complex factors affecting access to WASH; triangulate data sources; empower and engage with excluded groups; identify infrastructural WASH issues for people and the solutions to address them; promote hygiene behaviour change; to build consensus in programming; and to convey the WASH realities of marginalised groups to policy and decision-makers.

The WASH sector can use PhotoVoice to explore new frontiers. Capacity development and confidence building in using PhotoVoice can increase its use, through talking about experiences of using it and sharing learning. There is scope to explore how the use of PhotoVoice can be expanded further in the WASH sector, and to identify how the WASH sector can involve PhotoVoice participants in decision-making in the future and to train sector professionals on how this can be done.

1   Background and introduction

The water, sanitation and hygiene (WASH) sector has used PhotoVoice both as part of programme-based learning and for academic research. The aim of this *Sanitation Learning Hub (SLH) Learning Paper* is to explore the potential use of this method to contribute to the commitment of the Sustainable Development Goals (SDGs) to 'leave no-one behind', and to meet Goal 6, to achieve universal access to water, sanitation and hygiene by 2030. PhotoVoice is an important participatory method to enable people to think critically about their everyday realities (Blackman and Fairey 2014), part of which includes people's access to WASH services, particularly in the Global South. In light of the growing use of PhotoVoice in the WASH sector, it is timely to look across existing experiences, to share learning for practitioners and researchers, and to show how this method can be effectively used to explore different aspects of WASH.

The term 'PhotoVoice' was defined by Caroline C. Wang and Mary Anne Burris from the University of Michigan (Blackman and Fairey 2014). PhotoVoice is:

> 'a process by which people can identify, represent, and enhance their community through a specific photographic technique. It entrusts cameras to the hands of people to enable them to act as recorders, and potential catalysts for social action and change, in their own communities. It uses the immediacy of the visual image and accompanying stories to furnish evidence and to promote an effective, participatory means of sharing expertise and knowledge' (Wang and Burris 1997: 369).

The accompanying stories are often quotes from the photographers and presented in captions next to the photographs.

The development of the concept was influenced by two factors. Firstly, it was acknowledged that problem-posing education starts with issues that people see as central to their lives, and that dialogue is a way for people to identify common themes in their community. PhotoVoice is powerful because anyone, including women, children, those who cannot read or write or people with socially stigmatised health conditions but with the physical capacity to hold a camera, can learn to use a camera. Secondly, the use of documentary photography at the same time as when PhotoVoice was emerging helped to recognise photos as a way for people to actively record and catalyse change in their communities (Wang and Burris 1997).

Giving cameras to people provides a participatory technique for them to take photographs to illustrate their lives and to share their knowledge and expertise of their issues. PhotoVoice allows people to present their 'voice' (Wang and Burris 1997). Individuals can express their own perspectives on life and enable others to understand their issues (Blackman and Fairey 2014). Photographs produced from PhotoVoice are used to elicit reflection and information on participants' life experiences through interviews and group discussions, trigger debate, raise awareness and instigate social change. The photos are often presented to the wider community and policy-makers through exhibitions, publications or public events (Fantini 2017). PhotoVoice projects have three aims:

- Firstly, to allow those who usually cannot influence decisions which affect their lives to have their voices heard, through using photographs to draw attention to the reality of their lives, alongside targeting specific decision makers through exchange, dialogue and education.

- Secondly, to empower individuals and encourage self-development, particularly for those who are ignored or marginalised. PhotoVoice can enable people to develop their thinking skills (e.g. problem solving), social skills (e.g. building positive relationships with family and friends) and their skills in decision-making and negotiation.

- Finally, it can ensure that marginalised groups are fully involved in decisions which affect them and their community (Blackman and Fairey 2014).

2 Methodology

The content for this paper was generated through desk-based research using email and Skype interviews and a literature search. Between September and November 2019, three Skype interviews and three email interviews were conducted with WASH researchers who had used PhotoVoice and were identified using a purposeful sampling approach. To be eligible for interview, participants needed to have used PhotoVoice for WASH research and/or programmes, and be able to reflect on their experiences of using the methodology. During the key informant interviews (KIIs), participants were asked to explain the topic of research for which PhotoVoice was used, the aim of this research, the reasons why PhotoVoice was used, the methodological process for their study, and their reflections on the effectiveness of PhotoVoice for their research. Academic databases and Google were searched for further examples of the use of PhotoVoice in WASH. Relevant results needed to demonstrate how PhotoVoice was used in any WASH related context and discuss methodological issues faced, and key findings from PhotoVoice.

3 Uses of PhotoVoice in the WASH sector

PhotoVoice has been used in different contexts around the world for learning, research and advocacy. This section analyses how PhotoVoice has been used to explore different topics in WASH, by academic researchers and WASH practitioners globally between 2008 and 2017. The case studies featured in Sections 3.1 and 3.2 are grouped geographically, across Africa, and South Asia and the Pacific regions.

3.1 Africa

This section gives an overview of how PhotoVoice has been used in different African countries including Malawi, South Africa, Ghana, Kenya, Senegal, and Tanzania, to explore topics relating to equality, non-discrimination and inclusion in WASH, factors affecting access to WASH, and WASH behaviours.

3.1.1 WASH and disability in Malawi (Research/Advocacy)
Timeframe: July – October 2014, 5 exercises of 3 days over 2 and a half months

White et al (2016) used PhotoVoice in Malawi to explore the barriers to WASH access for disabled people, to inform government policy. The aim was to understand where WASH fits in the broader context of issues faced by people with disabilities, and to allow disabled people to express these issues through their own perspectives and creativity. Respondents with varying intellectual and motor challenges and a woman who was legally blind were trained on how to use cameras, and asked to illustrate the most difficult parts of their day, or the things they would most like to do independently through five photos. Photos were then ranked by the participants according to the most difficult parts of the day, or the perceived severity of the problem illustrated. Participants were from poor backgrounds and had not used cameras before, and many wanted to be within the photos. These photos were self-directed as participants told the researchers what the photos should look like, and the researchers (including five Malawian researchers, three of whom had disabilities) followed their directions. PhotoVoice identified issues faced in access to WASH by people with disabilities. Leg amputees showed how it was challenging to carry water. Water pipes in the street were physical barriers to access for wheelchair users. People who were blind showed

how rocks posed difficulties for them to walk through the streets to access WASH. People with epilepsy reported how fetching water was challenging and that they were dependent on their partners to do so.

The photos were shared through exhibitions in two places in Malawi, an exhibition at London School of Hygiene and Tropical Medicine (LSHTM), and at World Water Week. The exhibitions were a way to start a conversation about WASH and disability at a time when it was not a priority for the sector. Discussions were needed at different levels: firstly, within Malawi to influence policy, and secondly, within research and WASH sector environments to change programming. The powerful nature of the exhibition became clear when two years later, one of the photographer's stories was relayed back to the researchers by other people, reflecting how PhotoVoice can be effective for sharing stories. The photo exhibitions were a source of pride for the photographers (who were brought to the capital city so that they could attend the events) and the photos enabled them to speak openly to the policy-makers who attended the events. Without the photos this would have been hard for the participants as the power difference between them and the politicians was significant. PhotoVoice also contributed to informing an inclusive Community-Led Total Sanitation (CLTS) process in Malawi, and practical changes and a greater focus on inclusive design in local disabled people's organisations, but there were no direct policy changes at a governmental level (White et al 2016; White 2019, pers. comm.).

Figure 1: 'Even though I am able to fetch some firewood I am unable to get enough water for my needs as I can only carry a small bucket' (*Photo:* Wezzie)

Figure 2: 'People need to think about us when they are planning. Drains and pipes are barriers that we cannot pass over. It's sad because it stops me going to the market and other places I would like to be.' (*Photo:* Hovings, who became a double amputee following a road accident)

3.1.2 Menstrual hygiene management, sanitation and privacy in South Africa (Research/Advocacy)
Timeframe: November 2012, 21 exercises of two weeks over four weeks

In Dassenveld, South Africa, Scorgie et al (2016) used PhotoVoice to understand women's beliefs and practices around menstruation. Participants were recruited from a larger parent study to document menstrual hygiene management (MHM) practices and to explore the acceptability of menstrual hygiene products that reduce the demand for waste management through sanitation. The aim of the PhotoVoice component was to document women's experiences of managing menstruation. Twenty-six women were recruited from two communities in Dassenveld, and 21 women eventually participated. Women had to be aged 18-35 years, had menstruated within the last four weeks, did not report symptoms of a vaginal infection, did not plan to get pregnant and planned to stay in the community for the study. The sample size was kept to a size which enabled the data to build a case study from detailed narratives from a smaller number of women.

Each participant was given a disposable camera over two weeks, and asked to photograph their experiences of managing menstruation, even if they were not menstruating at the time. Women were asked not to use any other MHM products than those they would normally use or change their MHM practices. Seventeen out of the 21 cameras were returned and the photos were developed and ranked by the research team according to the responsiveness to the aim of the research. Ten women with the highest-ranking photographs were approached for interviews about the photos, and seven were interviewed. The photographs revealed that women would store menstrual hygiene products in a separate container or under their beds and were reluctant to place them directly into the household waste bag until it was time for the waste to be collected, due to taboos around menstruation and the fear of being seen. Photographs also reflected how poor construction of pit latrines compromised privacy for women using them whilst managing their periods.

3.1.3 Intergenerational hardship and access to WASH in Mozambique (Policy research)
Timeframe: Date unknown, ten exercises over six months

In Mozambique, Virgi and Mitchell (2011) explored priorities for water and sanitation policy from the perspective of girls experiencing intergenerational hardship with limited access to basic services. The aim of the PhotoVoice exercise was to understand girls' perspectives about the strengths and challenges of their lives, and to understand their views of how their lives can be improved, with a particular focus on water and sanitation. Ten girls aged between 10 and 14 from a school in a peri-urban area of Maputo took part in a PhotoVoice exercise over a 6-month period. One hundred photographs were collectively produced on the girls' experiences of hardship and their ideas for solutions.

The photos were analysed using a participatory approach, actively involving the girls by allowing them to choose the photos they wanted to analyse. The photos revealed the difficulties that girls face in their responsibilities to collect and carry water every day, sometimes walking for up to one hour and making 20 trips a day carrying up to 20 litres of water. Carrying water made the girls' arms painful, and was very heavy for their heads, and made harder if they had not eaten the night before. The girls raised concerns about their safety and fears of being attacked, stating that they never go alone to fetch water. Photographs reflected their lack of access to clean water and sanitation, and fears of becoming unwell through cholera and other diseases, particularly as children played in the water and toilets in the absence of playgrounds. The PhotoVoice process was found to be empowering for the girls, increasing their confidence as they went from responding quietly to the researchers, to engaging in lively discussions with each other by the end of the process (Virgi and Mitchell 2011). The findings of the research were also shared in a report by

UNICEF Mozambique (2011), which recommended the monitoring of water quality throughout rural water supply project cycles, and that a sanitation campaign focussed on handwashing, constructing latrines and providing safe waste and water disposal, should continue.

3.1.4   WASH needs of perimenopausal women in Ghana (Research)
Timeframe: January – February 2016, five exercises of 2-3 days over six and a half weeks

PhotoVoice was used by Bhakta (2019) in her PhD research on the WASH needs of women making the transition to menopause, known as the perimenopause, when menstruation permanently ceases, in the urban communities of La, Accra and Kotei, Kumasi in Ghana. Women experience wide-ranging symptoms during the perimenopause, including hot flushes (sensations of heat spreading from the chest up to the face), night sweats, heavy menstrual periods and urine incontinence, which require management with WASH use. The research question being addressed through PhotoVoice was to understand how the perimenopause affected women's WASH activities and use of WASH infrastructure, in order to inform policy and practice recommendations for meeting the WASH needs of perimenopausal women. Using PhotoVoice was an experimental technique because the issues were hidden, absent from the literature and taboo and not widely discussed, and therefore it was unknown which methods would be appropriate to find them. However, PhotoVoice was ultimately key to enabling perimenopausal women to illustrate their infrastructural WASH issues, not seen by others.

PhotoVoice was used in conjunction with other methods, including interviews and participatory mapping, as an attempt to see if it was effective in raising issues that were not recorded. A basic 'point and shoot' digital camera was given to five selected women who were going through or had been through the perimenopause, for three days, to take pictures of their WASH activities or infrastructural issues. They were briefed on the ethics of not taking pictures of others without permission, but participants did take photos of other women and it was not clear whether permission was granted, hence these photos were ultimately excluded from the write-up. After three days, the women explained their photographs to the research team, and the photographs and discussion notes were analysed (Bhakta 2019). The process identified very private issues for perimenopausal women, in spaces such as bathhouses and toilets, highlighting the perimenopause as an everyday WASH issue rather than a health issue.

PhotoVoice was critical in enabling women to show issues which are not easily spoken about and arise as a direct result of trying to manage perimenopausal symptoms, including solid waste management, squatting on pit latrines, doing laundry, sweeping, carrying water and bathing, which are challenging due to joint pain. These issues revealed new knowledge on the WASH needs of perimenopausal women, which were absent from the literature. Relevant photos were included in the thesis, publications, and conference presentations after the data was collected and credited to the women who took the photographs. The women were often in the photos and faces had to be pixelated to protect identities. Women were given printed family photos that they took to keep. Photos were removed from the camera between each use to ensure anonymity. A further stage of the study involved engaging with environmental health professionals to identify solutions for meeting the needs of perimenopausal women. Whilst the photographs themselves were not shared with environmental health professionals, the analysis and the stories from the photos were shared through vignettes with professionals in respective local authorities, who worked on issues such as hygiene promotion, waste management and health. These stories prompted the professionals to consider possible WASH solutions for meeting the needs of perimenopausal women, including needs for a regular water supply and user-friendly infrastructure, but it was unclear whether these would be implemented.

Challenges arose. MHM issues could not be captured, as women may not have been menstruating when they had the camera and because it is taboo. Training women to use the camera was time

consuming. The types of things illustrated through PhotoVoice may have been limited when women asked others to take photos for them, as women may have wanted to keep some things for themselves. The sample size was restricted by only having one camera and the lengthy training time required. The sample of five could have been expanded with greater diversity to include more perimenopausal women currently going through perimenopause and those who had already been through it.

Figure 3: Bathhouse in Accra, Ghana (*Photo:* Rebecca)

Figure 4: The laundry of a perimenopausal woman in Kumasi, Ghana (*Photo:* Elizabeth)

3.1.5 The implementation, acceptability and use of shared toilets in Ghana (Research)

Timeframe: September – November 2011, four exercises of 2-3 days over 3 months

Mazeau (2013) incorporated PhotoVoice into his research, which aimed to determine the types of shared sanitation facilities that are solutions for urban dwellers depending on the local circumstances. In the pilot stage of his PhD research, Mazeau (2013; 2019, pers. comm.) gave out four disposable cameras to be shared in groups of two women in Nii and Amui in Ashaiman, 30km East of Accra, Ghana, to use over two to three days. PhotoVoice was used to understand how people were perceiving sanitation facilities in the settlement. Household residents were selected randomly using aerial images of the neighbourhoods and asked to use photos to illustrate anything positive or negative about their sanitation and hygiene. Individuals who did not wish to be part of discussion groups, participated in the exercise instead. They were briefed on ethics, such as not taking pictures of people who were not part of the study, and gave verbal consent for including the pictures in the study. The pictures and the fact of taking pictures in general were a way of starting a discussion with the participants. Instead of jumping directly into 'sanitation talk,' the pictures and the PhotoVoice experience was used to dive gradually into the topic. The photographs were developed, and the informants selected the pictures they wanted to show to the researcher, whilst keeping others to themselves. Participants explained why the selected pictures were taken and pictures were sorted by content.

Figure 5: Solid waste in drains in Amui, Ashaiman, Ghana (*Photo:* Anon youth worker)

Figure 6: Child open defecating in Nii, Ashaiman, Ghana (Photo: Anon youth worker)

The outcome of the exercise was that very few pictures showed toilet facilities. Participants later explained to the researcher that taking pictures of toilet facilities was challenging, because they did not wish to be seen by the toilet attendants. Participants explained that it was important for them to take photos of the toilet environment, not just the toilet. Technical issues such as the misuse of the flash and lack of training meant that some photographs taken did not work. Training the women to use the camera was costly and took a long period of time. The delay between retrieving the disposable camera and developing the film limited the time available for the researcher to discuss what the photos meant with participants (Mazeau 2013; Mazeau 2019, KII). The pilot project used multiple methods but several research tools were trialled during the pilot, and the most appropriate tools were selected. The use of PhotoVoice was not continued into the main data collection stage, because other tools proved more reliable, easier and cheaper (Reed 2019, KII) though, some of the photos were included in the body of the thesis, such as solid waste in drains in Amui, and open defecation in Nii (Mazeau 2013; Mazeau 2019, KII).

Biases in the analysis of PhotoVoice: overcoming different perspectives on the implementation, acceptability and use of shared toilets in urban Ghana

Evidence of the role of bias in PhotoVoice becomes clear when different perspectives on the same photographs are considered. Reed (2019, KII) observed some interesting outcomes of PhotoVoice in Mazeau's research from the perspective of being his PhD supervisor. There were many photos of surface water drainage in the submissions, which was surprising as this issue had not been very prominent in the discussions so far. In discussion with supervisors, the photos could be interpreted as meaning one of several things: the public toilets were too disgusting to photograph and the participants self-censored themselves; taking photos of public toilets makes the photographer stand out; it was too dark or too cramped to actually take photographs in the toilet; the people were happy with the toilets but they wanted the drainage improved and nobody was doing anything about it. Reed was a drainage engineer and noticed the preponderance of drains. The others did not notice this pattern as they were mainly interested in the management of the public toilets. Did Reed see

what he wanted to see or did Mazeau not see it because he was not looking? There was a lot of researcher subjectivity, as is the case in all research, and in this case, the same photos meant two different things to two researchers. The analysis of the photos was difficult, and it was not clear what these results actually meant (Reed 2019, KII). The lesson to be learned from this was that discussion with the community to clarify the meaning behind the photographs is a critical part of analysing the data from the PhotoVoice process. Using PhotoVoice goes beyond taking photos and is a process which involves the community from the start of data collection to data analysis.

3.1.6   Changing WASH behaviours in Kenya (Programme based and research)

Timeframe: June – August 2013, eight exercises lasting eight days, plus a seven hour group discussion, over three months

PhotoVoice was used as a behavioural intervention in WASH projects in Usoma, a lakeshore community in Western Kenya (Bisung et al 2015a, 2015b). The Knowledge, Attitudes, Practices and Empowerment (KAPE) project aimed for education and capacity building around water and health in communities and to educate local communities on maintaining high levels of public health through safe water supply. PhotoVoice was used to explore local perceptions and practices around health and water linkages and how these are shaped by socio-political and economic environments, and to look at community disparities relating to WASH. Eight women aged between 28 and 55 years, who had lived in the community for over a year, were recruited through snowball sampling. Participants were asked to take pictures of what best represented WASH practices and attitudes that influence health in the community over eight days. Firstly, one-to-one interviews were held with the women to understand social-political drivers of water-related practices, using photographs as a stimulus for discussion. Then, each participant chose four photographs which best represented her views and brought them to a group discussion between the eight participants. The chosen photos were spread across a table for the participants to discuss their reactions to the photos and experiences of the project.

The group discussions identified three themes: awareness, immediate (re)actions and planned actions. The initial results were shared through a *baraza* (public meeting) with provincial leaders, public health officials, researchers, school children, and community leaders, in order for the community to discuss ways to find community-led solutions. Socio-economic factors that become embodied through lack of access to water and sanitation, and pose a barrier to collective action, were identified. The photos prompted awareness of certain behaviours and practices and existing WASH issues such as the dangers of certain pit latrines, the proximity of latrines to certain water points, lack of water treatment before drinking, and open defecation. Spontaneous and immediate reactions to the photos included prompting discussions between participants when they met each other, advising children or stopping certain activities whilst the exercise was being conducted, and wanting to clean a dilapidated pit latrine. In summary, PhotoVoice for this research was useful for problem solving (identifying barriers/facilitators to open defecation through interviews and *baraza*), behaviour change communication (providing information through photographs for critical consciousness), materials (providing soap for handwashing) and information giving (delivering WASH messages through the *baraza*).

3.1.7 Exploring the water-health nexus in Kenya (Research)

Timeframe: 2009, 25 exercises lasting one week

PhotoVoice was used to visualise the water-health nexus in Kenya by Levison et al (2012). The purpose of PhotoVoice was to educate and build capacity among participants about the links between water and health, and to identify solutions to these issues. In total 25 participants (17 women and eight men) from a rural coastal community in Usoma, Lake Victoria participated in a PhotoVoice exercise over one week. Participants were asked to take pictures of their water and sanitation facilities to illustrate their water treatment strategies, and any other community features important to them. In total, 582 photos were taken by the participants. Photographs showed community WASH features and activities such as water collection, water transfer and storage, and general washing. Due to ethical issues relating to consent and maintaining anonymity, photographs were not included in the journal paper. PhotoVoice helped to strengthen the understanding of water and sanitation practices, identified differences between gender and age preferences around water and health, and highlighted community attributes that can help to facilitate change.

3.1.8 Challenges with using PhotoVoice in WASH - Children in Senegal (Programme based)

Timeframe: 2016

Attempts were made in Senegal to use PhotoVoice with children in a village during an evaluation of a CLTS programme in September 2016, to identify the good and bad issues of the programme from their perspective, for later discussion (Ferron 2019, KII). On this occasion, PhotoVoice could not be used. Cameras were bought prior to travelling to Senegal, but the translator did not allow the team to give the cameras to the children, believing that they would run away with them. Ferron herself felt that due to a lack of previous experience, she did not have the confidence to push the tool forward. However, she feels she may have been able to use PhotoVoice as a tool if she had been based somewhere for longer and could grow accustomed to it, particularly because it was found to be an interesting approach. It was assessed that more time was needed and that the efforts seemed very rushed due to the realities of working in the field, such as arriving late, spending a long time on introductions, wanting to speak to a variety of people and then running out of time. Finding the best way to introduce the project also requires several attempts (Ferron 2019, KII). The lessons to be learned from this include a need to get a buy-in from project partners and ensure all of these partners are on board with the research. Researchers also need to be able to explain the PhotoVoice method effectively to people who are wary of the process.

3.1.9 Understanding household behavioural risk factors for diarrhoeal disease in Dar es Salaam, Tanzania (Research)

Timeframe: 2008, 13 exercises of 24 hours, duration of project unknown

Badowski et al (2011) used PhotoVoice to explore the daily activities of household members, especially mothers, which may increase the risk of microbial water contamination and diarrhoeal disease in Tanzania. The aim was to understand the daily routines of mothers and how these presented as risk factors for diarrhoeal disease. The exercise included 13 female-headed households from two peri-urban communities with comparable socio-economic characteristics and access to WASH services. Participants were female head of households aged between 18 and 50 with at least one child under the age of five, and an older child or relative able to take photographs. The participants taking the photos were the oldest daughter (five households), an aunt (one household), a grandmother (one household), the husband (four households), or a neighbour mother (two households). A Kodak EasyShare camera was given to households, and training was provided on how to use it. Participants were asked to take photos of 'the essential events and routines of the mother's day,' over a period of 24 hours. The research team collected the camera after 24 hours, downloaded the photos

onto a computer, printed 8-12 of the photos and then returned to the household to interview only the mother after two days. The mothers were asked to describe the scenes in the pictures and the thoughts, feelings and issues that they associate with them. They were then encouraged to share their experiences with the households. Oral consent had to be given by the female head of household and an adult family member or the male head, for permission to record the interviews and to include photos in the research. PhotoVoice identified issues around: toilets, child toileting, handwashing, and collecting and using water (Badowski et al 2011).

3.2   South Asia and the Pacific

PhotoVoice has been used to explore WASH issues in South Asia and the Pacific. This section examines case studies on issues faced by people with incontinence in Pakistan, disability, MHM and incontinence in Vanuatu and disability and MHM in Nepal.
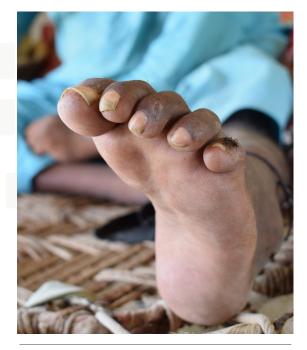
3.2.1   Incontinence in Pakistan (Research)

Timeframe: June – July 2017, four exercises of two days over two months

PhotoVoice was used by Ansari (2017; 2019, KII) in her Masters research on the impact of incontinence on persons with disabilities and their caregivers in Sindh, Pakistan. Four participants with physical impairments, divided between an urban and a rural setting, were recruited for the PhotoVoice component of the research, to analyse urban and rural differences. PhotoVoice helped bring together and powerfully visualise themes that were brought up in interviews and observation of incontinence products. It also helped participants talk about themes that did not come up in the interview process. Flexibility was needed in terms of who was taking the pictures. The majority of the time, participants wanted to be in the photos themselves, or they lacked the mobility to go around the house and show Ansari the areas that they wanted to be photographed. At that point, a family member was allowed to take the picture. However, the instructions were very explicit that the participant had to guide the family member as to exactly what they wanted photographed and in what way. Ansari (2019, KII) found the pictures to form an 'inspiring yet haunting narrative that words simply cannot do justice to.'

For the ethical procedure, the process was described in great detail to the participants and their family members, who were included in some of the pictures. The importance of pictures and their use in advocacy work was described to the participants. It was made very clear that the pictures would be used in multiple forums, but the whole family had the right to choose which pictures and delete any pictures that they were not comfortable with. Consent and choice were reiterated through the two-day exercise with each participant.

PhotoVoice identified that people relied on relatives to collect water, which for one participant's sister took up to an hour for the trip. The narratives revealed that water is used for cleansing, but people with incontinence can stay feeling dirty due to lack of access to water. Participants showed that they would refuse to eat food in order to avoid defecating on themselves, but this could make them ill and need to lay on a bed all day. Showering was found to be important, but the photographs reflected that bathing spaces made available for participants were still too far for them to use. Lack of cleanliness was reflected through photographs of ants sitting on feet (Ansari 2019, KII). Ansari believes that PhotoVoice is one of the best mediums to express topics that are difficult to articulate. Similar to Bhakta's work (2019) on perimenopausal women in Ghana, PhotoVoice was useful to bring out a hushed topic; the impact of one of the pictures was enough to make you step back and consider what can actually be done. Ansari believes that it is the participant's story and their own unique voice that you are bringing to the forefront, and this is the perfect way to do it.
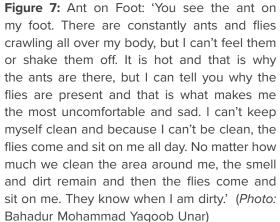
Figure 7: Ant on Foot: 'You see the ant on my foot. There are constantly ants and flies crawling all over my body, but I can't feel them or shake them off. It is hot and that is why the ants are there, but I can tell you why the flies are present and that is what makes me the most uncomfortable and sad. I can't keep myself clean and because I can't be clean, the flies come and sit on me all day. No matter how much we clean the area around me, the smell and dirt remain and then the flies come and sit on me. They know when I am dirty.' (*Photo:* Bahadur Mohammad Yaqoob Unar)

Figure 8: 'There is always clean water in the house and I really like this. My old house didn't have a water pipe in it... That is one of the reasons I moved back to my mother's house, because there is always water here. It helps me with my bathing. It is always available when I get dirty. I can quickly get clean when I want to. It is available to clean my body and to clean my clothes. I don't know what I would do without it.' (*Photo:* Bahadur Jung)

3.2.2 Disability, MHM, and incontinence in Vanuatu and Disability and MHM in Nepal (Programme/research)

Timeline: Disability, menstrual hygiene management and incontinence in Vanuatu: May – August 2019, four exercises of one day (two on incontinence and disability and two on MHM and disability), over four months. Disability and menstrual hygiene management in Nepal: August – September 2017, five exercises of one day each over two months

Wilbur (2019, KII) used PhotoVoice to explore disability, MHM and incontinence in Vanuatu and the MHM needs of disabled women and girls in Nepal. Five females with a disability aged between 15-24 years from rural and urban settings took part in a PhotoVoice exercise for a day. Firstly, the team visited the participants and explained the research, the PhotoVoice task, and got their initial consent. The camera was left with participants who took photos. The challenge set for the participants was to take pictures of five things which made them happy and five related to WASH. People often took more photos than specified by the team and selecting five photos was challenging. The research team returned to the households on a date suitable to the participants. In some locations in Nepal the photos had been printed in advance, however in other parts of Nepal and in Vanuatu printing was not feasible, so a laptop was used to display the photos.

Teams discussed with participants what the photo was of, why it was important and their feelings

surrounding it. They then ranked them according to what was most and least challenging. Physical photos were then left with participants or printed and sent at a later date if the laptop was used. In terms of ethics, initial consent for participation was sought and secondary consent was sought to ensure participants knew what they were saying yes to and for what, such as inclusion in a report or on a website. Photos were credited to participants using their real names, with their consent.

PhotoVoice was found to be valuable for Wilbur, especially because policy-makers and implementers will look at photos as they often do not have time to read things. There was an element of researcher bias to consider, as people did not understand what a caption was and needed help to come up with one. The PhotoVoice research has been used as part of qualitative research training for the research team involved in the project in Vanuatu to explain what PhotoVoice is and how it can be applied in the research. The team included a member of a disabled persons organisation, two independent consultants and a member of staff from World Vision. The photos gathered through PhotoVoice were shared in a research paper and in presentations (Wilbur 2019, KII; Wilbur et al 2017).

Figure 9: 'Accessing the toilet is impossible unless I have someone to assist' (*Photo:* Fred Sewen, Vanuatu)

Figure 10: 'During period one should be careful using bathroom. Our legs might already feel weak (lulo) so we might fall down and meet an accident. Here the toilets are made for everyone to use but if it was to built at home for crutches user, it is to be made in a way that it is not slippery. Marble should not be used as it is slippery.' (*Photo:* Babita Thapa, Nepal)

Figure 11: 'Breaking the custom practices is shameful but I don't have a choice' (*Photo:* Edline Elton, Vanuatu)

Figure 12: 'When I have to use the toilet, I need someone else to help with the latch otherwise I can't do it myself.' (*Photo:* Tulasa Karki, Nepal)

4   Lessons learned from using PhotoVoice in the WASH sector

It is possible to draw lessons from each of the case studies reviewed in the previous section for using PhotoVoice in WASH. This section summarises key points on how PhotoVoice can be used to support learning in WASH, taking into account the benefits and drawbacks of the method, how PhotoVoice can be used with other methods, and how the WASH sector can use PhotoVoice to fully realise the aims of the method.

4.1   Supporting learning in WASH

The case studies featured in this paper show how PhotoVoice can be useful for the WASH sector to learn, by being able to:

- **Understand the relative importance of WASH in the context of people's lives** (e.g. intergenerational hardship in Mozambique; acceptability of shared sanitation in urban Ghana; the water-health nexus in Kenya).

- **Identify barriers and areas of concern in access to WASH** (e.g. disability, MHM and incontinence in Vanuatu; incontinence in Pakistan; disability and MHM in Nepal; disability and WASH in Malawi; MHM and sanitation in South Africa; the needs of perimenopausal women in Ghana).

- **Explore taboo topics with a small number of marginalised people.** Photos can be used to stimulate discussion and carry out scoping on under-explored topics in WASH (e.g. the needs of perimenopausal women in Ghana; MHM and sanitation in South Africa; disability, MHM and incontinence in Vanuatu; incontinence in Pakistan).

- **Understand complex factors affecting WASH use and access,** such as gender or disability (e.g. disability, MHM and incontinence in Vanuatu; disability and MHM in Nepal; disability and WASH in Malawi; MHM and sanitation in South Africa; the needs of perimenopausal women

in Ghana).

- **Triangulate different sources of data.** It can help the WASH sector to better understand what people tell us about their WASH issues in conversation or in interviews, through visual images. It can also help to highlight the need for transdisciplinary methods in WASH research (e.g. incontinence in Pakistan; the needs of perimenopausal women in Ghana; MHM and sanitation in South Africa).

- **Empower and engage with excluded groups to ensure that no-one is left behind** (e.g. the needs of perimenopausal women in Ghana; disability, MHM and incontinence in Vanuatu; incontinence in Pakistan).

- **Identify infrastructural issues faced by different people, and to identify possible solutions to address these issues.** For example, the infrastructural needs of women at different stages of their lives, people with disabilities, children, or those experiencing incontinence (e.g. disability, MHM and incontinence in Vanuatu; incontinence in Pakistan; the needs of perimenopausal women in Ghana; MHM and sanitation in South Africa).

- **Promote behaviour change such as for handwashing and hygiene promotion** (e.g. household behaviour risks in Tanzania; the water-health nexus in Kenya; WASH behaviours in Kenya).

- **Identify barriers to collective action in WASH and to build consensus in programming** (e.g. the water-health nexus in Kenya; WASH behaviours in Kenya)

- **Convey the WASH realities of marginalised groups to policy and decision-makers,** and to trigger conversation between those with and those without power (e.g. the needs of perimenopausal women in Ghana; disability and WASH in Malawi).

There are different benefits and drawbacks for the WASH sector to consider when using PhotoVoice (see Table 1).

Table 1: Benefits and drawbacks of using PhotoVoice

BENEFITS OF USING PHOTOVOICE	DRAWBACKS OF USING PHOTOVOICE
• Research participants can express themselves in a visual medium instead of using words, which is beneficial for people who cannot communicate their WASH issues as easily or for people who find it difficult to speak about issues that are taboo.	• It is time consuming, and additional elements need to be factored in, such as training people to use cameras and finding places to print the photographs. Image quality can be varied, quality of the camera will play a role, but also, this is the first time people might be using it so quality isn't guaranteed.
• Photos can be a useful entry route to initiate discussion with people on WASH issues. The group dynamic helps deepen understanding through interaction, whilst the move back and forth between visual and verbal modes of communication often generates key insights and undercovers ways forward.	• Gaining trust from the community and local partners to use PhotoVoice can be challenging.
• It can be used to open a dialogue between WASH service users and providers, potentially influencing policy and practice. Photos can be easier for policy-makers to look at and engage with.	• It can pick up some, but not all, taboo WASH issues.

• It can help with problem solving, information sharing and changing WASH behaviours.	• Getting informed consent from third parties who will not have been involved in the project, but are included in the photographs, is a challenge.
• Photos can provoke thinking about the possibilities of what can be done in WASH by relating stories to faces and making the reality of WASH issues personal.	• Bias can play a role in analysing photographs, depending on the background of those looking at the photos (e.g. a drainage engineer vs. an equality, non-discrimination and inclusion expert), and some things within the photographs can be missed. Analysis should always be undertaken with the photographers/participants themselves, and care taken that their interpretations and voice are at the forefront.
• PhotoVoice provides visual data about WASH infrastructural issues, enabling WASH providers to see problems in design and provision of infrastructure, and to identify appropriate hardware solutions.	• In culturally sensitive settings, such as non-indigenous researchers working with indigenous peoples about their water issues, effective communication of the research with fair representation of participants to the appropriate audience can be challenging.
• The process can empower and support marginalised people to be involved in making decisions which affect them, and can equip them with new skills (e.g. photography).	• It can be used more effectively for studies at a smaller scale to provide depth in knowledge rather than breadth.

4.2   Using PhotoVoice with other methodologies

PhotoVoice can be a useful method to use with other participatory methods, in order to triangulate data, such as:

- Interviews and informal discussions, either individually or in focus groups, to gain a deeper understanding of the meaning behind the photographs taken.

- Participatory mapping, which can help to locate the issues being illustrated through the photos in the spatial context of a community.

- Ranking exercises, to enable people to rank the photographs taken according to their relative importance.

- Participants' reflections on the PhotoVoice process.

- Survey data, for example to enable participants to illustrate the issues raised in a survey through photographs.

4.3   How can the use of PhotoVoice in WASH be strengthened to fully realise the aims of the method?

It is important to reflect on whether the WASH sector has been able to fulfil the three potential goals of PhotoVoice outlined at the beginning of this paper through its application within the field:

1. **To allow those who cannot influence decisions which affect their lives to have their voices heard and to influence decisions, through using photographs to draw attention to the reality of their lives, alongside targeting specific decision-makers through exchange, dialogue and education.**

The results from some of the PhotoVoice processes highlighted in this brief did successfully target decision-makers to raise awareness of the realities of those who cannot influence decisions. Bhakta (2019) managed to share the stories of the WASH needs of perimenopausal women that were

highlighted through the photos with environmental health professionals, to encourage dialogue about these issues. White et al (2016) used exhibitions in Malawi to raise the WASH related issues faced by people with disabilities, which importantly included the participants who took the photographs to enable them to directly speak with decision-makers. In Kenya, Bisung et al (2015a) used barazas with community and provincial leaders, public health professionals and children to identify community-based solutions to improving WASH behaviours. Whilst there is some progress in meeting this aim, more could be done to actively find methods to enable PhotoVoice participants to participate in and influence decision-making.

2. **To empower individuals and encourage self-development, particularly for those who are ignored or marginalised. PhotoVoice can enable people to develop their thinking skills (e.g. problem solving), social skills (e.g. building positive relationships with family and friends) and their skills in decision-making and negotiation.**

PhotoVoice in WASH has had some tangible impact on self-development and decision-making, and there is potential for the sector to use PhotoVoice for this purpose to greater effect. Indeed, Bisung et al's (2015a) photos prompted individuals to clean the toilet. PhotoVoice was successful in empowering people to make changes to their situations, and could be a useful technique for behaviour change through the process of empowerment.

3. **To ensure that marginalised groups are fully involved in decisions which affect them and their community.**

At present, there is less clarity on whether using PhotoVoice in WASH to date has increased the involvement of marginalised groups in decision-making. Moving forward, processes need to build in a more robust way to fully involve the participants in making decisions which affect them, after results are shared.

5   Recommendations for the WASH sector

The lessons from the examples of the use of PhotoVoice in this Learning Paper can inform practice and the effective use of the method in the WASH sector. The recommendations from these examples focus on ethical considerations and practical tips, and potential new frontiers for the sector to explore through using PhotoVoice.

5.1   Ethical considerations

•   Share your proposed study with an ethics board where appropriate. Where this is not possible, share it with someone with experience using PhotoVoice to review ethics.

•   Develop an information document about your study. This should explain who you are, what the study is for, what you would like the participant to participate in, that their participation is voluntary and without consequence, how long it will take, any risks and benefits to them, that they can withdraw at any point, and information about their anonymity. Make sure to read out all information in the participant's preferred language. This should also include the researchers' contact details and information about how they can practically withdraw consent (and researchers should have a mechanism for dealing with consent withdrawls).

•   If the participant agrees to the study conditions, get them to sign a consent form. You can use an 'X' or a thumbprint if they are illiterate, or do a video of them giving their consent.

•   Have a two-phased informed consent process at the start and at the end to ensure that people know what they are saying yes or no to. At the end of this process ask the participant whether

they are happy for the photos to be shared with others, and where. Be specific about the variety of ways they may be used. Ask the participant if they want their name on the photos or want to use a pseudonym. Explain that if used the photo will always be displayed with the caption and their name/ the name they chose. Add this information to the initial consent form.

- Print all the photos that the participant took and give the photos to them to keep.

- Ask the participant to review and analyse the photos and give each photo a caption which summarises what they were trying to show in the image.

- Ensure that photos are removed from the camera between use by individuals.

- If necessary, pixelate faces to protect identities.

- The ownership of the photographs needs to be clear. Attribute photos to the photographer, not the researcher.

- It is still often used for difficult topics, so this adds further ethical dimensions to consider.

- Consider researcher bias and whether researchers are putting words into participants' mouths, particularly when writing captions and analysing the photos. The aim is to amplify their voices, not speak on behalf of them.

- Ensure that the community is fully involved in the process from the beginning to the end. This could include allowing the community to view and validate draft reports, outputs or policy recommendations.

5.2   Practical tips

- Take time to develop a real rapport with the participants and explain both the concept of photography and the way that the camera works. Doing this well will ensure good quality photos. Practice taking photos with them.

- Talk through the task and some of the challenges participants face, or the issues being explored at the briefing so that they can begin to think about it.

- Use a good quality camera. 'Good quality' in this case means a digital camera, with simple functions and large buttons where possible. The camera should take good 'point and shoot' photos in automatic mode.

- Plan in advance how and where photographs will be printed. Portable printers can help make the process easier.

- Use examples and visual guides to explain photography to the participant.

- Take time to discuss photographs with participants to ensure that the message being conveyed is accurate. Treat this like an in-depth interview or focus group discussion

- Consider the overall time needed for the PhotoVoice project to be successful.

- Collecting the data through PhotoVoice can be easy, but it can be very difficult to analyse.

- Wherever possible involve your participants in sharing the photos.

6   Moving forward: Exploring new frontiers in WASH with PhotoVoice

PhotoVoice can be used to explore new frontiers in WASH, by:

- Encouraging confidence building and capacity development in the use of PhotoVoice within the WASH sector.

  ☐ Start the conversation on using PhotoVoice in WASH!

  ☐ Use fora such as Sustainable Sanitation Alliance (SuSaNA), workshops at conferences, national WASH networks, to stimulate discussion on the use of PhotoVoice and encourage more learning and sharing. Perhaps contextualise these discussions within the context of Participatory Rural Appraisal/Participatory Action Research practice, to highlight PhotoVoice as a valuable tool and to identify other examples of use as yet unknown.

  ☐ Engage with or form email groups on using methods in WASH.

  ☐ Publish accessible online blogs.

  ☐ Ask other people how they are using PhotoVoice, where and what were the outcomes?

- Exploring how the use of PhotoVoice can be further expanded in areas such as WASH advocacy and built into larger research processes and programmes using multiple -methods.

- Identifying ways to include PhotoVoice participants in decision-making after results have been shared, and provide training for the sector on how this can be done.

- PhotoVoice has been used extensively in other sectors, valuable lessons could be learned from looking at where else it's been used and what the learning is.

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Uncovering WASH Realities Through PhotoVoice

This *SLH Learning Paper* explores the potential of an innovative participatory visual method known as PhotoVoice to help to achieve universal access to water, sanitation and hygiene (WASH) by 2030. The paper outlines what PhotoVoice is, and shares learning relating to its use in the WASH sector around the world for research, programming and advocacy. It draws on lessons learned from these experiences to show how PhotoVoice can be used for learning in WASH, how it can be used with other methodologies to explore topics which are neglected or taboo, and the benefits and drawbacks of PhotoVoice to consider. It includes practical recommendations for using PhotoVoice in WASH and the ethical considerations to make when it is used. The paper reflects on how PhotoVoice is important for exploring new frontiers in WASH, and can help us gain a deeper understanding into how people experience, interpret and respond to their realities.

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