SLH Learning Paper

Inclusive participatory research through photovoice: A study on WASH and nutrition in Afar, Ethiopia

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About the authors

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Front cover image:

Surface water source. *Photo*: Asiya

"This picture was taken while I collected water from the river. Actually, we have pipe water source in our village, but sometimes no water. So, we fetch water from the river whenever there is no water. Water is life; we use it to drink, for cooking, for handwashing, washing clothes and utilities. But as you see the water I was fetching is not clean because animals also drink it. We couldn't find water treatment because it is not available in the shops. Most of the Afar people living with a big challenge for access for water. They travel long distances to get water. Most children are affected by diarrheal diseases because of unsafe water." (Asiya)

Table of Contents

Introduction

> "How do we ensure that all community members are heard and have a stake in an action research process?"

This question was on our minds as we began our study in the Afar region of Ethiopia. While action research and bottom-up approaches have gained traction in recent years in international development, particularly health research (Nelson et al. 2021; Wilson 2020), it can still be incredibly challenging to ensure that the most marginalized members of a community are included and actively engaged in the process (Bussu et al. 2021). In the case of Afar, this encompasses women, those with little to no formal schooling and those with very low levels of literacy. With this learning paper we want to share our experiences of using a methodology designed to include the voices of those most marginalized – in particular, women's voices – in a nutrition and WASH participatory research project in Northern Ethiopia.

Fostvedt-Mills Consulting (FMC) was contracted by the German Society for International Cooperation (GIZ) as part of their Improved Food security through Transitional Aid for Resilience Project (IFTAR), which aimed to improve the nutritional status of vulnerable groups and the nutritional and hygiene behaviours of caregivers. We were asked to investigate the attitudes and practises of target communities in Afar relating to nutrition and water, sanitation, and hygiene and then to design a subsequent intervention that was contextually relevant to the communities.

For the study, we sought to answer the questions:

1. What are the social and gender-based factors determining the nutrition and WASH practices of the communities?

2. How are those factors affecting the nutrition and WASH practices of the communities?

In designing the approach, we wanted to ensure that we carried out our research with the communities, rather than on the communities, in a way that would build trust and create a shared understanding of the future intervention and generate interest and a sense of ownership in its potential outcomes.

The full study carried out by FMC included a desk review as well as primary quantitative and qualitative data collection. In this learning paper we will share the findings from the qualitative research. Specifically, we will examine how the use of photovoice and Community Action Planning methods worked to amplify the voices of women and ultimately engage a more diverse group of community members in the research process. We will share our most important findings and discuss some of the advantages and challenges of using these methods in Afar, as well as the potential for application of these research methods in other challenging contexts.

Woman collecting water from a broken pipe.
Photo: Mahisa

Background

The Afar people of Northern Ethiopia live in what can be considered the very definition of 'challenging contexts.' Largely nomadic pastoralists, they navigate a harsh and unforgiving landscape, often having to travel great distances for water. They have been described as living on the frontline of climate change (Leal Filjo et al. 2021). The Covid-19 pandemic and emerging peace and security issues in Ethiopia have only compounded challenges around poverty, nutrition and sanitation as markets are disrupted and entire communities are displaced (Chothia 2021).

A major marker of a community's health is the rate of child mortality and stunting (World Health Organization 2010). Stunting – children being too short for their age – reflects long-term malnutrition and can have multiple causes including diarrhoea, inadequate food intake, and maternal malnutrition (Baye et al. 2020). The Afar region has the country's highest rate of child mortality and 41 per cent of children under the age of two exhibit stunting (Central Statistical Agency 2019). Close to 18 per cent of children under five also suffer from acute undernutrition – being too thin – and the prevalence of diarrhoea in this region is also high at an estimated 11.5 per cent (Bitew et al. 2017; Central Statistical Agency 2019).

Two thirds of the population of Afar have less than the recommended water quantity standard set out in Ethiopia's Second Growth and Transformation Plan (GTP II) and the majority of households spend more than 30 minutes per day walking to collect water – 61 per cent spend more than four hours (Whitley et al. 2019). Close to three quarters of the population uses surface water, such as rivers and ponds, which are at high risk of being contaminated, and few households treat their drinking water (Whitley et al. 2019).

Literature also shows that handwashing practices among Afar pastoralists are low. One study found that only 8.5 per cent of the population practiced handwashing during all critical times (GIZ 2017). This is reflected by a 2017 survey showing that 98 per cent of respondents did not have handwashing facilities in their compound and neither water nor cleaning materials could be found at the handwashing facility point (EU Delegation to Ethiopia 2017). Additionally, most households (more than 80 per cent) in Afar continue to practise open defecation (UNICEF 2017).

Low education levels in Afar not only affect nutrition outcomes but are also likely to significantly inhibit the success of interventions to combat poor nutrition and WASH practices (GIZ 2017; Hirvonen et al. 2017). According to the DHS, only three per cent of Afar women aged 15-49 completed secondary education, compared to ten per cent of men (Central Statistical Agency Ethiopia 2016). A study from Save the Children in Afar found that 89 per cent of the mothers and 84 per cent of their husbands could not read or write (GIZ 2017). High illiteracy levels in the region are compounded with gender discrimination when it comes to access to education (Headey et al. 2012). For these reasons, research and interventions in Afar around nutrition need to be tailored to work within the context of poor literacy rates and low infrastructure allocations.

Methodology

We knew that to successfully anchor the project in the community and ensure positive results, we needed to engage the communities directly in the research (Garrett 2008). We wanted to produce both broad insights on the current situation regarding nutrition and WASH from the quantitative data, as well as more in-depth insights from the qualitative data. We also wanted to ensure our research uncovered any potential gaps between knowledge and practice related to WASH and nutrition practices and understand the reasons behind this (Irehovbude and Okoye 2020).

To address the low level of literacy and ensure mothers' engagement, we sought tools that would enable non-literate women (and men) to participate fully and be recognised as experts in their own rights. Ultimately, we decided that using photovoice would best 'contribute to an enhanced understanding of community assets and needs and to empowerment' (Catalani and Minkler 2009: 424).

Photovoice is a participatory research method that allows community members to uncover their lived experiences and highlight what is significant to them through photography. This methodology allocates the task of data collection to community members and guides narrative development (Catalani and Minkler 2009; Sutton-Brown 2014). It is especially effective among marginalised groups who are rarely heard or not usually included in public conversations or decision-making. In patriarchal social settings, public discussions are often reserved for male community members and female voices tend to be muted, ignored or fall into the background. In places such as Afar, where women's educational levels are low to non-existent, that lack of literacy further excludes women from many processes concerning social organisation (Dessalegn et al. 2020). Photographs, therefore, are an accessible vessel for conveying information and meaning from marginalised and illiterate people to stakeholders and decision-makers.

Originally, the project plan was to follow the field research with a series of planning workshops to co-design a GIZ-led nutrition and WASH intervention under the IFTAR project. However, due to the Covid-19 pandemic and growing civil unrest in the region, GIZ project plans were revised. Instead, FMC facilitated Community Action Planning workshops where the target communities developed their own plans to tackle nutrition and WASH challenges, without the ongoing support from external actors, based on the findings from the photovoice and quantitative data analysis.

Data collection took place in six different woredas (administrative districts), in one village per woreda. All data collection was done in the local language and collected by field researchers between October 2020 and February 2021. The study was concluded in May 2021 with the Community Action Planning workshops. A household survey was conducted before the qualitative study was carried out and used to support analysis, expert interviews and facilitated group discussions.

A total of 36 community leaders (30 women and six men) participated in the photovoice research. The criteria for selection were purposive and individuals that would likely be the focus of any future interventions were targeted for participation.

Table 1: Photovoice participants by gender and community role in study villages

Village	Mothers with children under five	Female natural leaders	Kebele leaders (male)	Total participants per village
Muli	3	2	1	6
Gita-gile	2	2	1	5
Bilaloda	2	2	1	5
Mesgid	5	2	1	8
Gura'ale	3	2	1	6
Adkoma	3	2	1	6
TOTAL	18	12	6	36

Participatory research process

Figure 1: Timeline for participatory research

Photovoice training
- Local language workshops in each village
- Introduction to process and technology
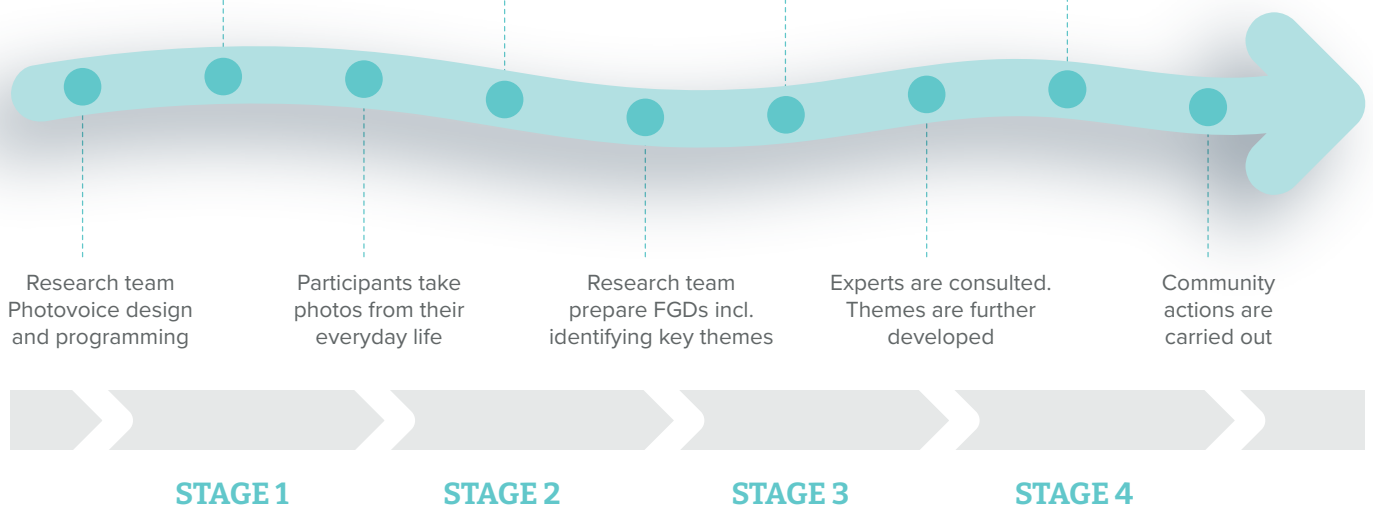
Photovoice FGD
- Presentation of photos
- Group discussion of key themes

Photovoice individual interviews
- Selection of 10 photos
- Photos used as prompts for interview

Community action planning
- Data validation
- Assessment of analysis
- Implementation plan

Research team Photovoice design and programming

Participants take photos from their everyday life

Research team prepare FGDs incl. identifying key themes

Experts are consulted. Themes are further developed

Community actions are carried out

STAGE 1   STAGE 2   STAGE 3   STAGE 4

Source: Authors own

Phase 1: Training the participant researchers

In the first phase, participants were invited to an **introductory workshop** where they were introduced to the study, provided with a smartphone and some training on how to use it. A trained and experienced research assistant (female) and several local facilitators conducted the selection and training of photovoice participants, including the distribution of smartphones. The training covered how to turn the camera application on and off, which button to press to take a photo, how to zoom in and out, how to keep the phone steady to avoid creating blurry images and how to review the photos that had been taken. Each participant was asked to take photos that illustrated any practices related to nutrition, water, sanitation, and hygiene in their daily lives. To keep the conversation rich and manageable for the photovoice discussions, groups were limited to an average of six individuals in each village.

Phase 2: Collecting data

In the second phase, photovoice participants had two weeks to take pictures to represent nutrition and WASH practises in their day-to-day lives. They were asked to select the best ten photos they had taken to be used as conversation-prompts in a **photo-based interview** with a member of the research team in the next phase.

Phase 3: Analysis

In the third phase, the research assistant and the local facilitators once again met the participants in each of the six villages, individually and in groups, to analyse and interpret the photographs. **Facilitated group discussions** were held with the six participants from each village. The images were used as catalysts to tell stories, share lived experiences, and develop dialogue and knowledge around nutrition and WASH. Each participant selected their best five photos which were then printed and posted up on the walls of the meeting space. Participants were encouraged to be open and non-judgemental and were reminded that the group was there to learn from each other. The photographers then each took time to explain why they took the photo and what message they hoped the photo conveyed while the facilitator asked probing questions to understand the context around the photo, including questions about gendered division of labour and any challenges related to the activity.

Facilitated group discussions and individual interviews focused specifically on the photos selected by photovoice participants as the best examples of nutrition and WASH in their lives. Participants were then asked to categorise the images according to themes: 1) preparation and consumption of food; 2) collection of food items; 3) WASH; and 4) culture (added by the participants themselves).

Once they had themed the photographs, participants had the opportunity to vote on which themes were most salient to them and suggest additional categories. Then as a group, they were asked to select the three best photos from each thematic category that would be part of the final album. The participants were thus, already an integral part of the analytical process.

The field team also met individually with photographers, experts and members of the nutritional task forces to discuss the photos in conjunction with the results of the quantitative survey to surface themes and differentiate between communities.

Figure 2: Photos by theme in the facilitated group discussion at Adkoma Village

Photo: Fatimetu Mohammed, FMC Field Researcher

Following the interviews and group discussions, the research team used audio-recordings of the individual interviews and group discussions to further develop the themes that would guide the discussion in the **Community Action Planning workshops.**

Phase 4: Community Action Planning

The community action planning workshops functioned as a source of information (*data validation*), a forum for sharing insights and getting feedback (*assessment of analysis*), as well as a venue for discussing how to move forward (*implementation plan*). Importantly, we wanted to ensure that women's voices were heard and that women were included in, and took ownership of, the analysis and ensuing action plan, ultimately improving health outcomes for their children and community more broadly. This was partly accomplished through the selection of photovoice participants who then were encouraged to share their research, as well as through the intentional inclusion of various women from the community in the workshops.

Since the initial plan for future intervention had been cancelled, the action planning took on a new significance as the goal shifted from getting community buy-in on future interventions to having the community lead the development of a self-created and self-led action plan.

Participants of the workshops (held in each village) included health extension workers, school directors, women, and youth representatives, kebele leaders (administrative regions), agriculture representatives, religious leaders, clan leaders, and some of the photovoice participants. Specifically, we strove to include government staff from various departments that would continue to have a presence in the community but who may not have been the 'usual suspects' for inclusion in a nutrition and WASH intervention. One of the ways we did this was by tapping into existing networks that had fallen dormant, specifically the nutritional task forces that had been pulled together by the Ethiopian government to advance work on national goals around nutrition.

First, the main findings and analysis were presented to the community for validation and explanation of how the analysis had been reached. After the presentation, the groups had a chance to review the album of photovoice pictures. This served as an icebreaker to help participants discuss problem identification, actions, and potential solutions. Facilitators then led discussions to identify barriers to improved nutrition and WASH by addressing things such as gender, social and power issues that affect outcomes in the community. Participants were asked directly about norms and inequalities highlighted in the photos, with a focus on who is affected by inequitable norms and practices, how women, men and their children are affected and what negative consequences this might have for individual and community wellbeing.

During the workshops, concrete action plans were developed. Participants worked collaboratively to identify and rank the top five to six activities that they would undertake to make positive changes in their communities. They identified who would be responsible, the timeframe, the different concrete actions that were to be taken within each activity and where these actions were to take place. At the conclusion of the workshops, the photo albums and action plans were handed over to local teachers and health extension workers to enable them to follow up on the implementation of the plan.

Upon completion of the photovoice project, including the group discussions and interviews, the FMC field research team de-briefed with the international team. During their time in the field, they kept journals chronicling their experiences in each community. The inputs from these discussions informed the development of analytical themes that were then presented to experts and ultimately back to the communities in the action workshops. These discussions also informed the dissemination of the results of this project through this learning paper as well as blog posts published through the Sanitation Learning Hub

Ethical and safety considerations

The use of photovoice as a methodology raises some specific ethical issues regarding the use of images and ownership of those images within the project context. If these issues are not given due consideration, prior to as well as during a project, there is the potential for the project to do more harm than good.

Our team made efforts to ensure that participants were given clear choices about which content of their work would be included in the study and that they were aware of their right to withdraw from any or all project activities, at any time. We worked in partnership with community leaders to ensure that the work was culturally acceptable. These leaders were able to clearly explain the objectives of the research and provide support to participants during the process. They were engaged during the selection of participants, preparation, training and presentation of results to the communities.

At the beginning of the project, participants were asked for their informed consent to take part in the study, and throughout the project at each phase, participants and community leaders were provided additional opportunities to give (or withdraw) their consent; this included prior to training photovoice participants, individual interviews and facilitated group discussions. Participants agreed to all images that were included in the study. Training exercises reinforced the need to obtain informed consent from subjects prior to taking photos. Participants themselves made the decision about which photographs, and captions could be used and stored by the projects and for which purposes. To recognise the work and copyright of each participant photographer, participants were given the option to choose whether their names or a pseudonym would be associated with their images when they are used in reports, websites and other dissemination materials.

Participants were not directly compensated for their work. However, refreshments were provided during sessions, soap was distributed as a thank you gift and participants were given printouts of their photos. Additionally, a photo album was provided to the community taskforces to facilitate future activities taking place and as a memento of their participation.

The context of nutrition and WASH practices within the family dwelling may result in images that are contentious, sensitive, or illegal. During the study, photographs were sometimes taken of children bathing or going to the bathroom. The FMC Research team decided not to display these photographs when sharing results with local stakeholders or in our wider reporting. In this paper, we have chosen to not show the faces of children, as they are not able to give consent for their images to be used. We have tried to select photos that do not directly show the faces of community members. We have attributed all photographs and quotes to the participant researchers using first names only, to prevent the possibility of internet searches (however unlikely) of participants in the future.

During the study, we ensured that researchers followed all government guidance on Covid-19 protocols.

Findings

A total of 366 households across the six villages were surveyed for the quantitative portion of this study. 289 of the respondents were female (79 per cent) and were able to provide valuable information about nutrition and WASH practices in their households, something typically understood as the responsibility of women. The results from our quantitative study reflected those of our literature review, illustrating that key challenges related to nutrition were access to resources and education.

In the following section, we will highlight key findings based on the themes identified through consultation with photovoice participants, experts and FMC researchers through interviews and facilitated group discussions and address how the use of photovoice and community action planning contributed to these findings. In many cases the use of photovoice uncovered widespread knowledge-practice gaps that could be addressed in future actions.

Women's workload

Figure 3: Women carrying firewood. Photo: Asawuka

"Women are responsible for all household activities; they cook food, collect water and firewood, wash clothes, feed the children and clean the house. There is no special treatment for children, if they are young, they will play the whole day. If they are older, they will look after livestock and help their mothers in household activities." (Moydor)

As Moydor explains, in the Afar community most household activities are the responsibility of women and girls, including fetching water, collecting firewood, constructing huts, cleaning, and cooking. Men are responsible for looking after animals, selling animals to earn money and buying food ingredients from the market. However, women also help with milking, looking after animals and going to the market. Most of the participants

claimed that there is no gender difference in market activities in the Afar community; although men do it most often, women also sell animals and buy food ingredients.

Many of the participants took photos of women collecting firewood or water, cleaning, cooking and feeding or bathing children. Photos of men generally showed them at the market, with livestock or eating.

Figure 4: Eating bread with milk. Photo: Sale (pictured)

"This picture was taken while I had been having my breakfast. You told me to take picture of what I have since I [am not involved in] food preparation (...laughing...)." (Sale)

In the photovoice sessions, facilitators prompted participants to think about gender differences in workload by asking questions about who is responsible for certain tasks. Participants acknowledged that women are responsible for a large number of tasks as they manage all things related to the household as well as supporting their husbands in managing economic tasks such as participating in market activities. Considered alongside other participant comments about women's nutrition, it is clear that women carry an overwhelming workload that can affect their health and nutrition.

Preparation and consumption of food

The most eaten food in the Afar pastoralist community is *mufie* – a flatbread made from unfermented dough of maize or wheat flour.

Figure 5: Mufie being prepared. Photo: Asiya

"I took this picture because mufie is our everyday food, and we may eat this for weeks without any additional food (breakfast, lunch and dinner). It is made from wheat or maize. We eat it with Shiro or milk." (Asiya)

Every photovoice participant took a photo of either *mufie*, *injera*, goat or camel milk, *shiro*, or porridge, demonstrating that the dietary diversity between communities is limited. Although the pastoralists are lacking nutritional knowledge on their staples like *mufie* and *injera* (when asked by facilitators in photovoice sessions about the nutritional value they were generally unsure or assumed them to be healthy) almost all discussion and interview respondents believed that adding a dairy product makes food more nutritious.

Although the main dishes are the same for children and adults, the participants mentioned that they feed more milk and porridge to their children. They stressed that milk is good for children as it is easy for digestion and helps children to grow faster and get stronger. Nonetheless, participants repeatedly mentioned that their households do not have milk on a regular basis as the cows used to produce the highest share of the community's milk have been wiped out due to frequent droughts. Many have access to goat's milk, however, many indicated that this is insufficient for household need.

Figure 6: Girl milking goat. Photo: Sale (pictured, his daughter)

"We use goat's milk mostly when we don't have cow milk for the family. [But] the volume [of] goat's milk [produced] is not much as cow milk." (Sale)

With respect to child nutrition, participants emphasised the importance of exclusive breastfeeding up to the age of six months, complementary feeding after six months of age, and no pre-lacteal feeding. Other studies in Northern Ethiopia have shown it is a common belief that colostrum (milk produced just after birthing) causes abdominal cramps in infants, and grandmothers and traditional birth attendants often encourage new mothers to use pre-lacteal feeds instead (Hussien et al. 2018). Indeed, at least one participant indicated that this practice is still occurring in their community.

Figure 7: Pre-lacteal feeding. Photo: Hamedu

"... they give the mixture of milk and butter before the initiation of breast feeding. They believe that this prelacteal feeding helps the newborn to adapt the environment and to make him brave. Actually, the [Health Extension Workers] are trying to stop this practice, but still women continue doing so by hiding from the HEWs." (Hamedu)

Participants claimed that children are prioritised, and they try to feed them foods like milk, porridge, *mufie* with milk, rice, pasta, and meat, all of which are believed to be healthy. However, because of financial limitations to buy different kinds of foods, children usually eat any available food prepared for the entire family, mainly *mufie* with *shiro*, or milk if available. It was also mentioned that children eat separately from adults as they tend to eat slowly.

While there was clear knowledge of the benefits of diverse foods for children, in practice families struggled to provide this and children's diets were quite uniform. Women oversee the cooking but are often unable to prepare the diverse foods they want to. This knowledge- practice gap was mainly attributed to lack of financial means. Through the photovoice process, it was the mother's perspectives on children's nutrition that were central, which meant that when it came time for the community action planning, their challenges in providing children with diversified foods could be addressed above the individual or household level.

Figure 8: Children eating mufie with shiro. Photo: Mahisa (pictured - her children)

"[Because of lack of resources], we can't prepare special food for [the children] and we are giving foods which are prepared for adults." (Mahisa)

Collection of food items

According to the photos and the interviews and facilitated group discussions with photovoice participants, the food items used for making the usual meals in all six communities are similar. The main food types in the community are maize, wheat, rice, and *shiro*. Almost all the participants purchase all crops and spices from the local market. Milk and butter are produced from their own livestock. Income is primarily generated by selling livestock, such as goats and sheep. Goats are also the main source of milk. Men usually sell livestock in the market and buy complementary food items from that same food market. and traditional birth attendants often encourage new mothers to use pre-lacteal feeds instead (Hussien et al. 2018). Indeed, at least one participant indicated that this practice is still occurring in their community.

Figure 9: Market stall with goods. Photo: Biru

"I took this picture on the market place. I bought shiro, pepper and oil. If there is no milk, we need shiro sauce for mufie (bread) or to eat injera. We have to buy the shiro (powder), oil and pepper to prepare. Market is important to get everything we want for living." (Biru)

In addition, a few participants also mentioned that they receive a food ration from the government. The reliance on selling livestock and purchasing food items at the marketplace is high throughout the study area. This makes the communities' food intake extremely susceptible to lack of diverse foods at the markets and livestock deaths. Many photovoice participants took pictures of livestock and markets, stressing the central importance of both in providing their food sources and their reliance on healthy livestock for both food and other resources.

WASH

All of the participants photographed their water sources and water collection practices. Surface water, mostly rivers, are the main water source for household consumption (drinking, cooking, and washing) and for animals. Springs, open ponds, and wells were also mentioned.

Figure 10: Collecting river water. Photo: Fatuma

Untreated surface water is used for drinking due to a lack of water treatment chemicals. The community generally cannot get water treatment tablets in the local market unless local health offices or non-governmental organisations (NGOs) distribute them. As a result, some participants claimed that diarrhoea is common in their community due to unsafe drinking water.

Figure 11: Surface water source. Photo: Asiya

*"This picture was taken while I collected water from the river. Actually, we have pipe water source in our village, but sometimes no water. So, we fetch water from the river whenever there is no water. **Water is life**; we use it to drink, for cooking, for handwashing, washing clothes and utilities. But as you see the water I was fetching is not clean because animals also drink it. We couldn't find water treatment because it is not available in the shops. Most of the Afar people living with a big challenge for access for water. They travel long distances to get water. Most children are affected by diarrheal diseases because of unsafe water." (Asiya)*

Despite indicating that they were aware of the dangers of using untreated surface water, photovoice participants still took pictures of water sources and explained to the group that this is what is available to them, so they continue to access water where they can. Several villages were able to get water from pipes but many of those were broken, forcing people to deal with standing water, overflow and other undesirable situations.

Figure 12: Woman collecting water from a broken pipe. Photo: Mahisa

"This is a picture of our water source. There is piped water but the pipe is broken and we collect from the line. As you see from the picture, it creates pond from the leakage and not convenient for water collection." (Mahisa)

The participants also took photos illustrating various WASH practices. They mentioned basic hygiene practices such as handwashing before cooking and eating, handwashing after using the toilet, washing utensils (pot, tray, and plates), washing and dressing girls' hair, showering, washing clothes, and the use of soap for washing hands, clothes, and showering. Washing clothes and showering were mentioned as essential practices to prevent skin infections. Although the participants reiteratively mentioned the importance of soap for hygiene, most of them usually did not use soap for handwashing and showering because of financial limitations.

Figure 13: Child washing. Photo: Meyrem

"Water is the basic thing for hygiene, we soap when it is available. Then we clean our environment to maintain the sanitation." (Asawuka)

The participants emphasised the importance of compound cleaning and latrine use; however, only one participant took a photo of a latrine. Households reported not owning latrines because the latrines in the area are built using local materials and since the area is very windy, they are usually wiped out by the wind.

Figure 14: Latrine. Photo: Awol

"It is important for environmental sanitation [to end] open defecation. So, I want to be role model for the community to construct latrine and use it. We received training from health extension about the importance of using latrine, but we need strong follow up from concerned bodies till the community internalise its benefit." (Awol)

Similarly, while the participants claimed that children wash hands before eating, photos showed children sitting on the dusty or dirty ground while eating. Although access to clean water and handwashing and other hygiene practices were stressed as important by participants throughout, the photovoice process showed a gap between knowledge and practice. Accessing clean water was extremely difficult, and while children may wash their hands before meals, they often eat unattended and in unclean settings, exposing them to the very problems that the handwashing is supposed to eliminate.

Figure 15: Children eating injera with milk. Photo: Asiya

"We give food for children separately from adults because they eat slowly. They wash their hands before eating and sit down on the ground; they don't care about the dust and being inside or outside and also they don't have patience to find a mat to sit on." (Fatuma)

Culture

Pastoralists build temporary huts that are made using readily available local materials. When they move, the materials are collected and carried for re-use in the next settlement.

Figure 16: Woman loading materials on a camel. Photo: Awol

"This is our cultural transportation system which we use to transport all our things when we plan to go somewhere to search grazing and water for our cattle during the dry season. Women are responsible and they will construct the house at their destination. [Women] may travel far and feel tired. Sometimes, the camel might run away and is difficult to manage." (Awol)

As in other parts of Ethiopia, coffee is an important cultural aspect that brings people together after meals and to socialise. The pastoralists of Afar are a nomadic culture, moving regularly along with their livestock and following the rains. This mobility meant that to maintain connections with other communities or family that had moved away, a system of oral communication for sharing news was developed. This system, called *dagu* (roughly translated to mean 'news'), follows a system of unwritten laws that demand the sharing of information when you meet someone along the road (Menbere and Skjerdal 2008).

Figure 17: Roasting coffee for the coffee ceremony. Photo: Biru

Figure 19: Traditional steam. Photo: Fatuma

"I took this picture while roasting coffee after I finished cooking for lunch. Coffee is not part of main food, but we drink coffee after lunch. We discuss different issues while drinking coffee. As you know our information sharing system is 'Dagu' and we have to sit together and share information." (Biru)

"... First, we dig a small hole and place the wood which is used only for beauty purpose. We set it on fire and wait till it starts smoking. Then we sit on a stone on the top of the hole while smoking and covered with a blanket and wait for around 1 hour till the smoke ends. We couldn't find perfume, and this is the only way to have a good smell. It is also important to have smooth skin. We mostly do it after showering and wear clean clothes. A woman who doesn't have good smell is labelled as 'lazy and unhygienic'." (Asiya)

Participants acknowledged the role of *dagu* in spreading information, discussing important issues and influencing social change. In the action planning workshops this served to highlight the importance of having role models and people willing to talk about cultural issues in group settings.

One hygiene-related cultural practice in the Afar community is the use of traditional steam. The traditional steam is practised using smoke from special woods with fragrance value to smooth and perfume the skin. Community members also use the smoke as a perfume for their clothes. Additionally, unmarried girls and boys use a traditional method of hair beautification. They use a mixture of suet, hair oil and a special leaf that has a nice smell, to beautify hair and make it curly.

Such cultural practices may seem insignificant or unrelated to the matter at hand, but they tell us an important story about everyday life and hygiene in these pastoralist communities. By acknowledging the importance placed on them by the participants who took the photos and included them in larger conversations around nutrition and WASH, we recognise that perceptions of cleanliness (and dirt) are culturally contingent (Douglas 1984). Understanding local practices and perceptions related to hygiene is integral to successful WASH interventions, as acknowledging and working with existing (non-harmful) practices may facilitate local anchorage and ensure sustainability.

From insights to action

During the final facilitated group discussions and community action planning workshops, participants identified some cultural norms that they felt needed to change in order to support improved community outcomes, including addressing assumptions about gendered work tasks.

Figure 19: Women fetching water with their children. Photo: Asiya

What surprised the team, was the degree to which photovoice participants (largely women) were engaged and energised by the methodology. The FMC facilitators were used to holding focus group discussions where women barely spoke, or responded only when directly addressed, even without men present. The power of holding the smartphone and being tasked with representing your family and community was incredibly empowering (Budig et al. 2018), and in this researcher role women participated on more equal terms with men and community leaders.

After thorough discussions, each community developed an individualised action plan to map out some activities they could reasonably take on without external support to improve nutrition and WASH outcomes. Our team was impressed by the level of commitment and energy shown by the communities to take on this work without financial support from NGOs or even the Ethiopian government. It demonstrated a degree of understanding about the real impacts of poor nutrition and WASH on the health and development of children in the community.

An example of one of the actions identified by Mula village looked like this:

Table 2: Part of the action plan for Muli village

Activities	Responsible bodies	Time frame	Actions	Location (for intervention)
Minimise women's workload	Clan leaders Kebele leaders Religious leaders	Short term Should be started this month	Teaching the community (men) by using those husbands who are helping their wives as model (example). Religious and clan leader will start collecting water and firewood to be role model for the community to break the taboo.	At home During community meetings Mosques

The team was also encouraged by the interest from the formerly dormant nutritional task forces and the willingness of the community to work with those key representatives from education, health and other key government roles. As we will discuss further in the discussion section, the reactivation of these networks was important in supporting the potential sustainability of community action plans.

Discussion

The photovoice process and the ensuing action planning were effective in this project on a range of levels. Below we identify and discuss three different concerns which this participatory approach positively addressed: overcoming barriers and including marginalised voices, empowering localised and community-led action, and engaging and redefining central actors.

Overcoming barriers & including marginalised voices

The advantages of using photovoice to overcome barriers to participation, including gender and literacy levels, were clear in this project. First, the photos provided an equal playing field for people to engage in the project, regardless of gender, social status, education or any other identity factor that may impact power and influence in the community. Second, the women reported feeling empowered in a way they hadn't in other projects, and therefore were much more engaged.

The significance of using photovoice as a qualitative and participatory methodology cannot be overlooked, in terms of the ability to engage vulnerable populations and marginalised groups. This research worked with communities with extremely low levels of literacy—particularly among women—and communicating primarily in local languages and not in Amharic (the national language of Ethiopia). Presenting materials in written form can be intimidating to audiences with lower levels of literacy and in some cases serves to shut down conversations, rather than encouraging them. Non-written methods of communicating can be incredibly productive.

When representing community stories and narratives, using photographs that beneficiaries themselves have taken is empowering. Participants expressed that they enjoyed the discussion after the photovoice project and found it helpful. They shared that in the past, researchers and development practitioners simply showed up in their communities and asked them questions. This time they felt that they were part of the project. One participant expressed it this way: *"when you have an itch on your back, if I ask you to scratch it, it won't be satisfying. But if I can scratch it myself, it will feel better, and I will feel more satisfied."*

A stepping-stone for further localised action

Because community members had the opportunity to reflect on the results, discuss why certain issues needed to be tackled and design an action plan that reflected resources and interest, the probability of real change is higher. The degree of commitment from participants to continuing work, even knowing that GIZ would not continue funding this work, was encouraging.

From a resource perspective, it is the cultural factors in nutrition and WASH that are the aspects most easily tackled. Many of the things that people identified themselves as barriers to improved nutrition and WASH were cultural issues related to the unequal division of labour and traditional practices with infants and mothers. What became clearer after the community action planning workshops was that many people knew certain practices, such as pre-lacteal feeding, were not beneficial to small children; however, they felt that cultural pressures played a role in perpetuating these practices. Some of the communities agreed that mobilising clan and religious leaders to initiate conversations at community meetings about such things, as well as leading by example, would be an effective countermeasure to tackle those cultural issues.

Participants spoke about some of the cultural norms that were beginning to change because of their participation in the study. For example, some religious and clan leaders openly acknowledged that women carry a great workload throughout their life and that it was something that needed to be addressed. To illustrate this, they explained that before, women were supposed to carry babies when they go to collect firewood and water, but now some husbands will stay with the babies at home until mothers come back from water and firewood collection.

In the final facilitated group discussions and action planning sessions, virtually all the communities identified women's heavy workload and pre-lacteal feeding practices as key points for change. Indeed, it was the community members themselves that highlighted specifically *cultural* factors as barriers to improved nutrition and WASH and themselves led the discussion on how to address such issues.

Engaging and redefining central actors

Finding existing structures, networks and community leaders and managing to reactivate, reimagine and reinvigorate those initiatives allowed for greater continuity and ownership over action plans. Working with existing nutritional task forces in preparing for the community action planning workshops, meant the project was able to use the language that communities were already familiar with and ultimately brought those groups out of dormancy by allowing them to evolve into the new work. The groups were multi-disciplinary and brought together different government bodies, approaches, and sectors of the community. By re-activating these networks, each community had a dedicated body of experts to support then in implementing their action plans and keeping some degree of accountability.

Finally, it is important to look beyond the usual suspects for employment and consultation within development projects and bring people into the discussion who may have not been included previously because their technical expertise or focus area was outside of the typical disciplines. Credibility and strong relationships with the communities were brought with new participants, bringing valuable perspectives and knowledge to the discussion and leverage to future programming.

This is an important way to increase women's participation because the qualification threshold for formal participation often excludes women, in particular those who may be older or illiterate. When women are brought on as technical advisors, it serves to break the otherwise perpetual exclusion of these valuable, knowledgeable members of the community. Ultimately, it cannot be overstated that ensuring the meaningful participation of women and other marginalised members of communities results in stronger projects and more sustainable results.

Retrospective

Unforeseen challenges

This project was affected by a range of unforeseen and disruptive external factors. The original methodological design relied on researchers being embedded in communities for longer periods of time and greater participatory involvement in workshop design, planning and implementation. With the emergence of Covid-19 and pandemic related restrictions on movement and gatherings, the project was adapted to follow Ethiopian pandemic restrictions and protect the safety of both researchers and participants. Groups were kept small to allow for social distancing; and workshops and presentations were moved to outdoor spaces for better ventilation and to support distancing. This meant less opportunities to interact directly with communities, smaller numbers of participants to support health and safety protocols and less ability to use traditional methods of information sharing such as presentations using projectors.

Civil unrest in Tigray began in the autumn of 2020 and spilled into Afar region, causing instability, food insecurity and forcing some pastoralist communities to relocate. Follow up with various participants was simply impossible as there was no way to reach them and many of the action plans may have been stalled because of the conflict and resulting displacement. As mentioned earlier, because of these challenges, GIZ decided to cancel the final intervention. FMC adapted by using the community action planning process to support communities in developing their own plans to be implemented without any external financial or technical support.

Lessons learned

Overall, the communities engaged in this project, FMC and GIZ were content with the process of the project under the given circumstances. However, in retrospect, there were of course limitations to this approach and considerations to include next time we implement a similar study. The first lesson learned is related to the research team management, the second is related to the design of the project process, and the third is related to the actors involved in the process.

Team management

It was a great asset to have a team of local researchers carrying out the work in the Afar region. However, the challenges presented by the Covid-19 pandemic and security issues meant that FMC researchers had to spend less time in community building relationships and providing direction. Communication challenges related to unstable internet and intermittent power meant that community researchers were left to do much of the work with photovoice independently, without regular check points with the FMC research team. Ultimately, we were pleased with the results, demonstrating that photovoice can be a useful

methodological choice when managing remote projects (with a large degree of research team independence) as beneficiaries are highly involved in the research process.

Design of process

While the whole process was very participatory by most measures, we think it could have been even more participatory. In selecting the themes for the photovoice pictures, the FMC field research team, in consultation with the nutritional task forces and key experts, decided on the themes and presented them back to the participants. Under different circumstances, the participants could have been part of the theme identification, increasing engagement even further. Additionally, we would have liked the opportunity to conduct a participatory evaluation process as it could have added depth to both quantitative and qualitative discussions.

Only one action planning workshop was held per village, where we would consider additional sessions for future projects. It would be beneficial to have follow-up sessions in each community after a few months to see how the implementation of their plan was going, discuss any barriers they had faced so far and see what resources they may need to seek out to implement more effectively. Additionally, just staying in contact to check-in occasionally, demonstrates a level of care and concern for each community that can be encouraging for them to continue doing the difficult work.

Many of the challenges in this project were related to force majeure issues (Covid-19 and armed conflict), but should we do it again, we would be more involved in the implementation and followed up more closely on the action plan.

Actors involved

Overall, we reached our goal of active engagement by mothers in the project. However, we could have involved other actors more strategically in this process. Adolescents and elderly female relatives should have been more engaged as they often also have a lot of caregiving responsibilities. More men could have been involved to ensure their perspective was better reflected as well as for the exposure to the discussions around unequal division of labour. It would have been interesting to be able to conduct additional follow-up evaluations to understand how men had perceived the photovoice process as they watched their wives photo-document their lives.

While we see it as a great success to have reinvigorated the nutrition taskforces, if we could do the project again, we would engage them at the very inception of the project rather than midway through during the scoping for the action planning workshop.

Conclusion

From the onset of this study, we were determined to engage the community as much as possible in the research, analysis and intervention planning stages. The project sought to understand the social and gender-based factors related to nutrition and WASH outcomes in communities and how those factors affect the nutrition and WASH practices of the communities. Not least, it was important to work to address those factors to make a positive change for the nutrition and WASH statuses of the participating communities. With a range of different tools, we wanted to make sure that we had a solid knowledge base, sound and recognisable analytical outputs and a basis for sustainable local change.

Participatory research can be difficult, time consuming and hard to implement in certain contexts and often what is called participatory is simply consultative at best. In this case, real value came from using the photovoice methodology: more women were engaged in a meaningful way, the communities had an opportunity to influence research design and focus and people felt connected to the outcomes and energised to act, even after the end of the project and GIZ left the community.

Through the use of photovoice and community action planning, we were able to engage with marginalised and often overlooked or excluded community members to identify the real issues they were facing in their day-to-day life. By amplifying women's voices, those most responsible for managing nutrition and WASH for their families, other members of the community were better able to appreciate the struggles they faced and collectively identify opportunities to address those challenges together.

By focusing on localised implementation of the action research throughout and involving actors from outside the usual spectrum of participants meant local knowledge of past interventions could be better incorporated by having knowledge of what had previously worked (and not worked.) Thereby, this intervention rested on community trust and had a high degree of credibility. By tapping into existing networks, we aimed to increase the sustainability of interventions after the funding organisation (in this case GIZ) left the region by leaving a trusted structure in place to carry plans forward. It also enabled cross-sectoral, cross-departmental collaboration on key issues.

For those considering the use of participatory action research methods in their own projects, we offer these final recommendations based on our experience in Afar:

1. **Our use of photovoice centered the voices of women – animating them in discussions and treating them as experts in their own lives, families and communities. We recommend using this tool in addition to other forms of data collection in action research projects where the inclusion of marginalised voices is a priority.**

2. **Co-creating an action plan based on both quantitative and qualitative insights anchored the project's sustainability in the communities. We see the community action planning as a key tool in improving sustainability.**

3. **We reinvigorated dormant structures and heightened the chances for sustainable positive changes in the communities by working with the nutritional task force. By being attentive to the existing social infrastructure, projects can tap into trusted community members that may bring influence and knowledge to the project.**

References

Baye, K.; Laillou, A. and Chitweke, S. (2020) 'Socio-Economic Inequalities in Child Stunting Reduction in Sub-Saharan Africa', *Nutrients* 12.1

Bitew, B.; Woldu, W. and Gizaw, Z. (2017) 'Childhood diarrheal morbidity and sanitation predictors in a nomadic community', *Italian Journal of Pediatrics* 43.1, 91

Budig, K. *et al*. (2018) 'Photovoice and empowerment: evaluating the transformative potential of a participatory action research project', *BMC Public Health*, 18

Bussu, S.; Lalani, M.; Pattison, S.; and Marshall, M. (2021) 'Engaging with Care: Ethical Issues in Participatory Research', *Qualitative Research* 21.5: 667-85

Catalani, C. and Minkler, M. (2009) 'Photovoice: A review of the literature in health and public health', *Health Education & Behaviour* 37.3: 424-51

Central Statistical Agency (2019) *Ethiopia Demographic and Health Survey 2019*, Maryland: ICF

Central Statistical Agency Ethiopia (2016) *Ethiopia Demographic and Health Survey 2016*, Rockland

Chothia, F. (2021) 'Ethiopia's Tigray conflict: How the TPLF has outflanked the army', BBC News, 18 November

Dessalegn, M. et al. (2020) 'Gender Inequality and the Sexual and Reproductive Health Status of Young and Older Women in the Afar Region of Ethiopia', *International Journal of Environmental Research and Public Health* 17.12, 4592

Douglas, M. (1984) *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*, London: Ark Paperbacks

EU Delegation to Ethiopia (2017) *Resilience Building and Creation of Economic Opportunities in Ethiopia (RESET II)*, European Union

Garrett, J. L. (2008) 'Improving Results for Nutrition: A commentary on an agenda and the need for implementation research', *The Journal of Nutrition* 138.3: 646-50

GIZ (2017) *Afar Maternal, Infant, Youth and Child Nutrition Project: Baseline Survey and Formative Assessment*

Headey, D.; Taffesse, A. S. and You, L. (2012) *Enhancing Resilience in the Horn of Africa: An exploration into alternative investment Options*, IFPRI

Hirvonen, K.; Hoddinott, J.; Minten, B. and Stifel, D. (2017) 'Children's Diets, Nutrition Knowledge, and Access to Markets', *World Development* 95: 303-315.

Hussien, J.; Assefa, S. and Legesse Liben, M. (2018) 'Breastfeeding performance in Afar regional state, northeastern Ethiopia: a cross sectional study', *BMC Pediatrics,* 18

Irehovbude, J., and Okoye, C. A. (2020) 'Hand hygiene compliance: bridging the awareness-practice gap in sub-Saharan Africa', *GMS Hygiene and Infection Control,* 15

Leal Filjo, W. et al. (2021) 'Impacts of climate change to African indigensou communities and examples of adaptation responses', *Nature Communications,* 12, 6224

Menbere, G. and Skjerdal, T. (2008) 'The potential of dagu communication in north-eastern Ethiopia', *Media Development* 55: 19-21

Nelson, E. et al. (2021) 'Empowering meaningful community engagement and involvement in global health research', National Institute for Health Research

Sutton-Brown, C. A. (2014) 'Photovoice: A Methodological Guide', *Photography and Culture*, 7.2: 169-85

UNICEF (2017) *Progress on CLTSH in Ethiopia: Findings from a National Review*, New York NY: UNICEF

Whitley, L. et al. (2019) 'A framework for targeting water, sanitation and hygiene interventions in pastoralist populations in the Afar region of Ethiopia', *International Journal of Hygiene and Environmental Health* 222.8: 1133-1144

Wilson, M. B. (2020) Impacts of Participatory Development in Afghanistan: *A Call to Reframe Expectations*, Berlin: De Gruyter

World Health Organization (2010). *Nutrition Landscape Infomation System (NLIS) Country Profile Indicators: Interpretation Guide*, Geneva: World Health Organization

SLH Learning Paper

Inclusive participatory research through photovoice: A study on WASH and nutrition in Afar, Ethiopia

Designing effective interventions requires the inclusion and buy-in of beneficiary communities; however, because of constraints and context, fully participatory research can be challenging. The Afar people of northern Ethiopia live in what can be considered the very definition of 'challenging contexts'. Largely nomadic pastoralists, they navigate a harsh and unforgiving landscape, often having to travel great distances for water.

In 2020, FMC undertook a qualitative research study investigating the attitudes and practices of target communities in Afar relating to nutrition and WASH. Using photovoice and community action planning methods, the project sought to ensure that all community members, particularly those most marginalised (women, those with low literacy and little formal schooling), were heard and felt like they had a stake in the research process.

This *SLH Learning Paper* shares the most important findings, discusses the advantages and the challenges of using these methods, and speaks to the potential for their application in other challenging contexts.

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