EVALUATION OF THE COVID-19 PREVENTION PROJECT FOR VULNERABLE COMMUNITIES IN MALAKAL CITY, SOUTH SUDAN
2022
FINAL REPORT

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List of abbreviations

Acronym	Full Expansion			
CHS	Core Humanitarian Standards		OECD-DAC	Office of Economic Cooperation and Development – Development Assistance Committee
COVID 19	2019 Novel Coronavirus		PTA	Parents Teachers Association
DTM	Displacement Tracking Matrix		PWDs	People with Disabilities
EiE	Education in Emergencies		R-ARCSS	Revitalized Peace Agreement for the Resolution of the Conflict in South Sudan
EST	Elevated Steel Tanks		SWAT	Surface Water Treatment System
FSNMS	Urban Multi-Sector Needs and Vulnerabilities Survey		SMC	School Management Committees (SMCs)
FGD	Focus Group Discussions		SGBV	Sexual and gender-based violence
GPS	Global Positioning Systems		SOP	Standard Operating Procedures
HRP	Humanitarian Response Plan		SPSS	Statistical Package for the Social Sciences
IDPs	Internally Displaced People		TOR	Terms of Reference
IOM	International Organization for Migration		UNICEF	United Nations International Children's Emergency Fund
JPF	Japan Platform		WASH	water, sanitation and hygiene
KII	Key Informant Interviews		WFP	World Food Programme
MOU	Memorandum of Understanding		WHO	World Health Organization
NEC	National Education Coalition		WVJ	World Vision Japan
NFI	Non-Food Items		WVSS	World Vision South Sudan
ODK	Open data kit		WMCs	Water Management Committee

I EXECUTIVE SUMMARY

This report presents a combination of findings from the evaluation carried out for the JPF funded "COVID-19 prevention project for vulnerable communities in Malakal city" project. This project was implemented by World Vison Japan in Malakal City, South Sudan. The aim of the project was to strengthen resilience against COVID 19 for children and their communities in areas hosting internally displaced people (IDP) within Malakal city. The project intended to achieve this goal by providing water supply systems and hand washing stations in three target schools and two health centers; training school teachers on COVID 19 prevention and psychosocial care; and mobilizing school children, teachers and PTA/SMC to continue sensitization on COVID 19 prevention in and outside schools. The purpose of the evaluation was to conduct output to purpose review and assessing the contributions of the project to Humanitarian Response Plan 2020 Addendum and JPF's program goals, particularly in terms of the following objectives and questions (in line with OECD DAC criteria of impact and relevance). The evaluation also aimed at drawing recommendations and lessons learnt for WVJ's future project and JPF's program strategy.

The evaluation findings are based on the analysis of project data and documents, including monitoring data and data from other relevant secondary sources; as well as primary qualitative and quantitative data. This was obtained from face-to-face interviews with a wide range of stakeholders including: beneficiaries, project staff and local community leaders, camp administrators, WASH and Education cluster coordinators. Random sampling was used to select beneficiaries (Kish grid applied) to be interviewed and primary quantitative data was collected using mobile devices and Open Data Kit (ODK) platform while the qualitative data was collected using voice recorders and note taking methods. The quantitative approach achieved a sample of 319 households from the project implementation areas and 91 students from the three target Schools. The qualitative design engaged a total of 15 Key Informant Interviews (KIIs) with relevant stakeholders and 11 Focus Group Discussions (FGDs). In summary, the evaluation established the following;

Demographics

Out of the 91 students involved in the evaluation, most were male (66%), did not have any form of disability (87%) and 42% belonged to hygiene clubs in their respective schools. The average age was 17 years and was highest among children in Sobat Secondary School (22.4 years). The lower proportion of girls being in school may be due to a larger number of girls being out of school compared to boys as the largest group of out-of-school children in South Sudan are girls[1]. On the other hand, out of 319 community members engaged in the evaluation, most were female (59%), were household heads (68%), did not have any form of disability (74%) and were married (82%). Most of the community members (65%) either had never been to school or had not completed the primary school level. The average household size was 9 members and 94% of all community members had children of their own. The lower proportion of male community members was largely associated with their engagement in pursuit of livelihoods far from their homes during the day.

Project efficiency, effectiveness and coherence

To stop the spread of COVID-19, along with other COVID appropriate behaviours, the practice of handwashing at regular intervals is a must and thus access to water is vital. The aim of the project was to improve access to safe water in schools, health centers, and surrounding communities by rehabilitating Surface Water Treatment System (SWATs) and supporting fuel and operator labor costs required for SWAT operation. SWATs were appropriate in the area given the presence of the River Nile and they had

[1] https://www.unicef.org/southsudan/what-we-do/education

worked well before as six other SWATs were already existing in the county, but could not meet the water demands of the population. As opposed to rehabilitating an existing SWAT, the project supported the Nile Palace SWAT in full operation costs and built a new SWAT known as the Bam SWAT. The previous project supporting the Nile Palace SWAT had just ended and without another intervention, it would have stopped its operations. On the other hand, the Bam SWAT was constructed in the Southern Payam which did not have a SWAT or water connection. Although the Bam SWAT was not fully completed at the time of the evaluation, the purification tanks had been installed and the elevated steel tank (EST) was in the process of being installed. Delays in installation were mainly associated with long procurement periods for both the materials and labor. However, at the start of the project, a temporary[2] Bam SWAT had been set up to serve until the main one had been completed. The temporary SWAT was setup using requested pillow tanks from the water sanitation and hygiene (WASH) cluster. The Bam SWAT served the Southern, Eastern and parts of Central Payams while the Nile Palace SWAT (located in the Central Payam) served the Central and Eastern Payams. Prior to the project, community members from the Southern Payam had to walk long distances to access water from water points in other Payams while communities in the Eastern and Central Payams also had challenges in accessing adequate water for household and hygiene use. At the time of the evaluation, 79% of community members from the Southern, Central and Eastern Payams accessed water from SWATs and 89% used water from the SWATs on a daily basis. Specifically, 79% of community members used water from the SWATs for handwashing. Additionally, 70.3% of community members in the three Payams served by the two SWATs had experienced increased access to water over the last 11 months preceding the evaluation. An improvement was experienced in terms of cleanliness, easy access, closer proximity and quantity.

In order to strengthen water management at the community level, the project trained 16 water management committee (WMC) members, 8 from each SWAT (Nile Palace & Bam). Majority of WMC members were female (13 out of 16) and were selected from the community to manage the operation and maintenance of the SWATs. They also worked with the community in cleaning water points and cleaning of water fetching jerry cans. Within the three Payams under the WMCs, 77.3% of community members kept their water points clean. WMCs were willing to continue working without incentives after the project ended but required support in identification materials while working.

On the other hand, the project trained 5 water operators and 5 security guards for the Nile Palace SWAT and the Bam SWAT. These were proposed by the government and were trained on SWAT operations and maintenance. Unlike WMCs, water operators were unwilling to continue working without incentives.

Water from the two supported SWATs was also connected to two health centers (HC) and three schools. The Bam and Assosa health centers had been connected to the Bam SWAT and prior to the connection, they did not have active pipelines or water points, and water was accessed manually from other sources such as water points in the Central Payam. Water accessed was mainly used by HC staff and for drinking and cleaning the HC. Patients accessing the facilities did not wash their hand, increasing the risk for both HC staff and themselves. At the time of the evaluation, the project had installed two water points at the Bam HC and repaired an existing water point at the Assosa HC. Water from these sources was used by patients, staff and also community members. Patients and visitors to the health centers washed their hands at the entrance and also drank water at the health center water points. Additionally, the project had installed two handwashing facilities at the Bam HC from which patients and staff washed their hands. Hand washing facilities were some of the reasons patients perceived the health centers to be safe from COVID

[2] Temporary SWATs use rubber pillow tanks that are not durable and can be pierced using sharp objects as opposed to semi-permanent ones which are made of iron, metal and concreate and are more durable.

19. Out of students who had visited health centers prior to the evaluation, 69% considered them safe from COVID as did 66% of community members who had visited the facilities. Despite hand washing contributing the perception of safety from COVID 19 in the health centers, it was not sufficient as at the time of the evaluation, considering that HC staff and patients were not wearing masks in the facilities.

The target schools included St. Andrew primary school in the Eastern Payam, Sobat secondary school in the Central Payam and Interior primary school in the Southern Payam. Prior to the project, none of these schools had active water connection and water was fetched manually from available water points outside the schools and stored in available buckets. This also contributed to poor handwashing behavior in school. At the time of the evaluation, three water points had been installed, one in each school. However, tap stands in the three schools were constructed after schools had been closed (March-April 2022) and thus students had not used them at the time of the evaluation. On the other hand, St. Andrew had been directly connected and accessed water directly from the SWAT and students were using the water to wash their hands. St. Andrew and Interior were connected to the Bam SWAT while Sobat had been connected to the Nile Palace SWAT. The design of tap stands in schools was perceived as easier to use by students as they were similar to ones installed in the community. The project also installed 3 hand washing facilities per school. Due to lack of water connection, hand washing facilities were filled with water manually. These stations had been installed in January 2022 and students had used them for a short period before the evaluation. Nevertheless, 76% of students considered them easy to use. The rest who viewed the designs as difficult cited the number installed per school was not adequate especially in the morning when all students were entering the school premises.

The project also provided WASH kits (soaps, masks, sanitizers, infrared thermometers) which were supplied on 1st February 2022. This means students did not have much interaction with the kits prior to holiday closing of schools. This may be the reason why out of the 48% who had experienced challenges in observing COVID 19 measures in school, 51% cited inadequate soap. Additionally, only 2% had seen the use of disposable facemasks, with majority rarely seeing them in school.

In addition to water supply and kits, the project also conducted COVID 19 awareness creation. This was done in schools and within the community. At the school level, hygiene club members and teachers had been trained by the project to create awareness in school. A total of 34 (22B, 12G) school children were also engaged in quarterly training on COVID 19. As a result, 66% of all students had participated in awareness creation in school. Out of those who participated, 92% were sensitized by teachers while 44% were sensitized by hygiene club members. As a result, while at home, 31% of students always took preventive measures and 47% practiced sometimes while average of 13% never practiced. At school, practice was mandatory and teachers reinforced the practice. However, 48% of students had challenges practicing COVID 19 measures in school. The main challenges included small class sizes that limited social distancing, inadequate supply of water and soaps. On the other hand, 62% of students had challenges practicing while at home. Poor access to soaps, smaller houses and lack of enforcers at the household level were some of the challenges. Notably, more students (43%) found it easier to practice in schools than at home (32%).

Awareness creation at the community level was spearheaded by PTA/SMC members from the three schools. Overall, 21 SMC/PTA (17 male, 4 female) members had received training on COVID-19. They were also equipped with megaphones and reached community members through door to door visits and public announcements. Students also shared the information to community members although it was mainly their own family members. Students were trusted within the community and 81% of students who had been sensitized shared the messages with the community. The project's target of 2000 households

had been surpassed by 15%. Additionally, 52.5% of community members acknowledged that they had been reached and 92% of them cited PTA/SMC as the main sources. Furthermore, 89% of all community members who were engaged and had children in the three schools had received COVID 19 messages from their children. Uptake of COVID 19 prevention measures in the community was affected by several factors including the government easing restrictions, insufficient water, soaps and perceived high costs of masks. The communication by the government led to most of community members abandoning prevention behaviors they were already undertaking.

Sustainability and localization

In terms of localization, the project used water operators proposed by the government, WMCs proposed by the community and existing community structures such as PTA/SMC in its implementation. Community members were also involved in decision making in the project through supervision of the construction of the SWAT, selection and participation in WMC, use of PTA members and children to disseminate information. However, a majority cited that they were not involved in the proposed plan to hand over SWAT operations to the government for sustainability. This was concerning to them as they were not given the opportunity to raise their concerns with the plan. The majority believed at that time, the government was not ready to take over.

In terms of maintenance, WMCs who were already trained on SWAT management and repairs were willing to continue working without incentives while water operators were not. The project had also signed an MOU with the government that offered a path of continuity of SWAT operations, although there was much needed support in accessing chemicals, fuel as well as costs of operation. Additionally, the Bam SWAT was set up using a semi-permanent treatment and elevated steel tank which were more durable compared to the temporary SWATs. This boosted their levels of sustainability.

Continued practice of COVID 19 prevention measures was likely to be affected by various factors despite increased access to water and sharing of the knowledge acquired within the community. Easing of COVID 19 measures and the communication from the government had negative effect on continued practice as community members believed COVID 19 was gone and infections had reduced.

The JPF funding facilitated localization efforts of WV by supporting local capacities through the project as discussed above. The funding facilitated training of teachers, WMC and PTA members and also supported the incentives of PTA members when creating awareness in the community. Additionally, it supported the annual incentives and capacity building of water operators to be confident to fix SWATs even after the project has ended without external support.

Lessons learnt and recommendations

1. While tap stand nozzles prevented water loss, community members especially children had challenges in using them which led to them tying nozzles to ensure continued water flow. This was discouraged by WMCs and community members are further encouraged to take responsibility.
2. Community engagement can be encouraged including cleaning and taking care of water points as well as discouraging children from interfering with the nozzles. This increases their sense of responsibility for water supply facilities which also includes their willingness to work with WMCs to clean water facilities, supervise construction of SWAT and desire to be involved in SWAT handover decisions.

3. Despite the use of the hand washing facilities in schools for hand washing, hand washing in the morning caused queues at the entrance of schools, prompting some students to skip the queue and enter the school without handwashing. In this regard, water points and hand washing stations can be increased in schools to avoid long queues.
4. Overall, although the project design provided some of the most important components for protection from and prevention of COVID 19 (water, awareness, training of prevention measures, handwashing facilities, PPEs in schools), practice faced numerous challenges. Similar projects in the future should consider conducting holistic situational analysis to identify gaps in COVID 19 prevention. This will ensure access to all required means to prevention, such as masks, soaps, etc. either directly by the project or in coordination with other actors.
5. The level of practice at home was lower than in school given factors such as lack of enforcement and the government easing of restrictions which indicates a need for a critical mass to shift their behavior pattern if it is to be maintained. This may be achieved through an intervention targeting community leaders (just as teachers' role in school) to create a mechanism of enforcement within communities. The clear communication by the government on easing restrictions as discussed below would also aid in continued practice.
6. The government should also consider formulating clear messages to communities when the government lifts the restrictions. The communication should also insist on ongoing presence of infection risks and a continuous need for protective measures, even when they are allowed to do things that were previously restricted.
7. In terms of gender mainstreaming, the majority of WMC members were female and were suitable given majority of activities on fetching water were undertaken by women. They worked well in addressing challenges such as conflicts at water points as well as being capacity built to fix and run the SWATs. This can be replicated in other projects as well as in schools.
8. The projects efforts in supporting localization especially in capacity building community members, WMCs, PTA/SMCs, teachers, children and water operators can be replicated in other projects. Some of the effective capacity building aspects included; SWAT operations and maintenance and COVID 19 prevention measures. However, community involvement especially on the SWAT hand over process was not well addressed as community members were not allowed to express their concerns and share their inputs in the plan. Future projects should consider inviting community members and other relevant actors to chart way forward on such key issues. This can be achieved through multi-stakeholder platforms and meetings.
9. With regard to other key issues facing localization such as incentives, future projects should consider including long term plans of income for engaged members. This can be through supporting a reward system to the communal services offered. A community payment system can be explored to support the services of water operators, as WMCs were willing to continue working without incentives. Payment should be as per the level of efforts and technical skills offered. Thus, should WMCs be tasked with the daily running SWATs, they should also be compensated similarly to water operators. Discussion on how trained water operators and WMCs can use the skills gained as a means of livelihood is encouraged. This would ensure their livelihoods are also in line with their community services they provide. WMCs could be supported with branded shirts and operational tools such as gumboots. This would enhance their recognition in the community and also aid in undertaking their work.
10. Closure of borders and other restrictions as well the logistics context of Malakal was challenging in terms of procurement, which led to delays in implementation. We also recommend JPF to consider long term projects given the challenges in Malakal. Future projects are also urged to consider the transport context in their plans to avoid delays in implementation.

2 BACKGROUND INFORMATION

World Vision Japan (WVJ) is one of JPF's member agencies active in South Sudan. Under JPF's South Sudan program, WVJ had been implementing an education in emergencies (EiE) project in Upper Nile State, South Sudan. Since March 2021, WVJ has been implementing "COVID-19 prevention project for vulnerable communities in Malakal city" for a year, with an aim to strengthen resilience against COVID 19 for children and their communities in areas hosting internally displaced people (IDP) within Malakal city. The project intended to achieve this goal by providing water supply systems and hand washing stations in three target schools and a health center (activity 1.1), training school teachers on COVID 19 prevention and psychosocial care (activity 1.2), and mobilizing school children, teachers and PTA/SMC to continue sensitization on COVID 19 prevention in and outside schools.

Scope of the evaluation

1. Conduct the output to purpose review, validating the efficient delivery of intended outputs and ascertaining if and how they led to the intended end result as per the purpose statement (in line with OECD DAC criteria of efficiency, effectiveness and coherence).

2. Assess the contributions of the project to Humanitarian Response Plan 2020 Addendum and JPF's program goals, particularly in terms of the following objectives and questions (in line with OECD DAC criteria of impact and relevance).

Preventing transmission through awareness creating, contributing to positive behaviour change:

2.1 Assess if the project has targeted the most vulnerable population and their differential needs in light of COVID 19 risk factors that have compounded other pre-existing factors of vulnerability. Assess how strategic the choice of the target locations has been, given the impact of recurrent conflicts and the patterns of population movements, considering the trend of COVID 19 transmission, disaggregated by age and gender, in the country.

2.2 Assess how the communication approach used in the project has capitalized on gender-sensitive understanding of the local perceptions, communication channels and influencers, and built trust and confidence in the messaging among the targeted personnel and communities.

Scaling-up WASH response through increased handwashing stations and targeting public places like markets and schools (in preparation for reopening) to prevent the spread of the virus:

2.3 Assess contributions of the project to infection control and prevention measures in the target schools and to proper use of water in the health center, ensuring continuity of these essential services in the midst of the pandemic. Assess how the project

2.4 Assess the level of satisfaction of school children and community members (disaggregated by gender) with the changes brought about by the project. Seek feedback from school and health staff at the target facilities on the project interventions.

3. Identify actual and potential alignment of the project with the core responsibilities 4A Reinforce local systems & 5A Invest in local capacities under the Agenda for Humanity, with regard to the following questions (in line with OECD DAC criteria of sustainability and CHS).

****Reinforce local systems: International actors should enable people to be the central drivers in building resilience and be accountable to them through consistent community engagement and ensuring their involvement in decision-making. The international community should respect,***

support and strengthen local leadership and capacity in crises and not put in parallel structures that may undermine it.

3.1 Assess the level of participation of, and accountability to the crisis affected people, particularly children and women, in the project related decision making.

3.2 Identify relevant local actors across health, education and WASH sectors who are in a position to sustain the project achievements, and their actual and potential roles in the project. Assess how they perceive quality of their involvement in the project.

3.3 Assess how effectively the project strengthened a sense of ownership, capacity and systems among key local actors, and the extent to which they can sustain the project achievements without further reliance on external support.

Invest in local capacities: Local actors are the best placed to know the underlying risks and priorities of communities. While those factors place them in the ideal position to provide humanitarian assistance, local actors can struggle to scale high-volume delivery and sustain adequate resources to support a lasting organizational presence Direct and predictable financing, where possible, should be provided to national and local actors along with long-term support to develop their capacity to prevent, respond and recover from crises.

3.4 Assess if and how JPF's financing modalities facilitated or hindered WVJ's efforts at localization, as assessed under 3.1-3.3.

4 Draw lessons learnt from the evaluation for WVJ, JPF and other JPF member agencies active in South Sudan.

4.1 Recommendations for WVJ on the project design, implementation and stakeholder engagement.

4.2 Replicable lessons learnt on gender mainstreaming, behavior change communications, inter-sectoral programming that are of broader relevance beyond this project.

4.3 Recommendations for JPF on the program priorities and financing modalities.

4.4 Areas for further discussion between JPF and its member agencies on the localization agenda

3 EVALUATION DESIGN, APPROACH AND METHODOLOGY

APPROACH

The overall evaluation approach included a mixed methodology approach; combining quantitative and qualitative methods. This ensured triangulation of data, as opposed to relying on one source. The evaluation adopted the Organization for Economic Co-operation and Development (OECD) Development Assistant Committee (DAC) evaluation criteria, which formed the overall analytical framework.

3.1 Inception Phase

This phase was dedicated to contextual research through systematic document review and analysis of qualitative and quantitative information, contained in but not limited to the following document sources: Project monthly reports, SWAT design documents, IOM Malakal PoC brief 2021, South Sudan's health Sector Country Overview-Africa Health Business (2020), Humanitarian Response Plan 2020 Addendum, Core Humanitarian Standards (CHS), and IOM COVID-19 Appeal South Sudan Preparedness & Response Plan (2020/2021). After the review, the consultant developed an inception report that contained the workplan and data collection tools. All data collection tools were prepared and shared for review and approval by JPF and WV teams. The quantitative questionnaire was then scripted into the Open Data Kit (ODK) platform.

3.2 Field Investigation Phase

The evaluation was carried out in Malakal city. PARS consultant travelled to Juba on 3rd April and to Malakal on 6th April 2022. The consultant met with WV team and some of the enumerators on the 6th. The training of enumerators was conducted on 7th and a pilot was done on the 8th of April. The training manual is attached annexed (will be annexed in the final report). The revisions on the questionnaire, mainly on texts issues, GPS and general flow of the tools were addressed and fixed in the ODK tools. The proposed Kish Grid was automated in the tool. Data collection was conducted from 9th to 12th and some KIIs conducted later virtually. Data collection for both qualitative and quantitative was done simultaneously in all Payams.

3.2.1 Qualitative Research

Qualitative research was done through focus group discussions and key informant interviews.

3.2.1.1 Key Informant Interviews (KIIs)

The key informants included project staff, implementing partners and local government representatives. The target respondents were purposively selected based on their involvement in the project. We conducted KIIs with stakeholders to understand how the program has performed so far and whether it has lived to its objectives. All planned KIIs were achieved with the exception of representatives from the ministry of infrastructure and NEC. The following KIIs were targeted and achieved.

Table 1: Number of KIIs conducted

KII Category	Target	Achieved
Implementing Partners – WVJ, WVSS and JPF	3	1 with WVSS; 1 with WVJ- composed of two respondents

Community leaders	4- one per target area	4 Chiefs from all Payams
School teachers and headmasters	6- (2 per school)	3- 2 from Sobat and 1 from Interior
Health center staff	2 -Bam and Assosa health centres	2 Bam and Assosa health centres
Government Officials	3; UNICEF- education sector lead IOM- WASH sector lead NEC- national education coalition	2 NEC was not available for the interview
Water operators	2	2
Total	23	

3.2.1.2 Focus Group Discussions (FGDs)

A moderator steered the focus group discussions through the use of an unstructured discussion guide having all the discussions recorded with the participants' consent. The target participants for the FGD were purposively selected based on availability. The following FGDs were conducted:

Table 2: FGDs conducted

FGD Category	Target			Achieved
	Male	Female	Total	
Water management committees	1 Mixed group		1	1
PTA/SMC	1 Mixed group		1	1
Health Center staff	1 Mixed group		1	1
Community members	2	2	4	4
school children	3	3	6	4; children in Interior were difficult to reach for groups
Total			13	11

3.2.1.3 Observation

Site visits to schools, health centers and SWATs was done. Handwashing facilities could not be observed as they were kept in WV storage facilities due to security concerns.

3.2.2 Quantitative Research

Face to face interviews household surveys using a structured questionnaire were conducted among adult members (18 years and above) community members and school children from the three-target school in Malakal city. Kish grid was applied at household level to ensure representation of different age groups.

Sample Size Calculation

A confidence interval of 95% and a margin of error of +/-5% was used in calculating the sample size. Cochran's sampling formula was used to arrive at the desired sample size as shown below.

$$ss = \frac{z^2 * (p) * (1 - p)}{c^2}$$

Where:

Z = Z value (e.g. 1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal (0.5 used for sample size needed)

c = confidence interval, expressed as decimal, in our case we will set it at .05 = ±5. Substituting the equations, we have:

We have:

$$ss = \frac{1.96^2 * (0.5) * (1 - 0.5)}{0.05^2}$$

$$ss = 386$$

The target quantitative interviews were 386 (90 among the students and 294 among the adults) but during data collection a total of 410 (91 among the students and 319 among the adults) interviews were achieved. The breakdown is as shown below.

Table 3: Quantitative Data distribution

Respondent category	Region/School	Target	Achieved
Samples in schools	Interior Elementary School	30	31
	St. Andrew Elementary School	30	30
	Sobat Secondary School	30	30
Total		**90**	**91**
Community Members	Eastern	73	73
	Central	73	84
	Northern	74	81
	Southern	74	81
Total		**294**	**319**

3.3 Ethical Considerations

PARS employed survey ethics and prominence of respondents-associated rights. Before deployment for fieldwork, evaluation implementation team was trained on non-disclosure of information and other ethical considerations, which include but are not limited to:

- Informed consent – consent was obtained from all participants before any session to gain their approval to participate in the survey, FGDs, KIIs. The consent seeking entailed:
    - The name of the researchers and their role in the study;
    - The purpose of the study;
    - The voluntary nature of their participation in the study, informing them that they can choose to participate, refuse to participate, or withdraw from the study with no negative repercussions;
    - An explanation of the process and format of the study;
    - Benefits, if any, of participating in the study;
    - The anonymity of their participation in the study;
    - The contact information of someone that the participants can call if they have a question about the research, reporting any concern, and/or misconducts.
- Assurance of protection and respect of respondents' privacy and confidentiality – this entailed the protection and non-disclosure of the respondent's name, address, phone number, e-mail, personal information, geo-location, etc., or individual responses.
- Adherence to the ethical principle of '*do no harm.*'
- The respondents were assured that the highest professional conduct standards will be upheld during the collection and reporting of information they provide.
- PARS adhered to the principles and policies of WVJ, and observed **Child Protection Principles and Gender Policies**[3] of humanitarian interventions.

3.4 Synthesis and Feedback Phase

In this phase, the two main activities that were undertaken are data processing/analysis and reporting.

3.4.1 Data Processing and Analysis

Quantitative data was analyzed using SPSS and MS Excel. The consultant summarized the qualitative information collected from KIIs and organized groups (FGDs). Qualitative analysis was done on a daily basis to review recurring themes and gaps to follow up on in the next interviews. All the information collected was incorporated in the main report (findings section), especially in generating the findings, conclusions and recommendations.

3.4.2 Reporting

This section involved development of this draft report.

3.4.3 Health Safety Precautions/ protective measures against COVID 19

The study employed the necessary health protection measures to safeguard the beneficiaries, our staff, and third parties. Given the current state of COVID-19 pandemic and the easing up of COVID 19 regulations by the government, during the evaluation period, the following measures were observed:

For Quantitative Household Surveys

[3] World Vision

- Our evaluation team was given masks and carried sanitizing gel throughout the study;
- Face-to-face household survey was done in open air;
- Masks were provided for participants who did not have their own;
- Teams were advised against touching objects or structures during the survey;
- The number of participants in an FGD were reduced to 6-8 people

3.4.4 Justification of Methods and Techniques Used

The consultant's team determined the methodology based on desk review of project documents and information provided by the project implementers on the target areas and groups. The tools adopted are universally accepted for the evaluations and were reviewed and approved by JPF and the WV team. The selection of the areas for data collection was based on the project implementation areas and the type of activities undertaken during the project implementation. This included all four Payams in the Malakal county and the three Schools. The stakeholders interviewed were chosen based on their relevance, and involvement during the project implementation.

3.5 Limitations of the study

- Schools were still closed for scheduled holidays during data collection; Thus, children were targeted at household level. Two focus group discussions were conducted in the community while two were mobilized and conducted in St. Andrew School premises.
- Flight disruptions due to Easter holidays caused changes in planned schedules for KIIs.
- Unavailability of some key informants at the time of the study especially within the government. World vision staff who were not interviewed during fieldwork were interviewed at a later date virtually.
- Bam SWAT which was a key part of the project was still under construction. Challenges which caused delays are documented in this report. Notably, community members were still using the temporary SWAT as BAM SWAT was being constructed.
- Translation errors may cause loss of data during data collection. However, PARS used an experienced, locally-sourced team of enumerators who were trained rigorously to understand the questionnaire. A pilot study also provided feedback on the challenges the enumerators faced and allowed for adjustments to the methodology to mitigate against these challenges.

- The methodology largely assumes that the information received is fairly accurate and given in good faith. However, it is generally known that some biases may arise during collection of data due to a number of factors. This was overcome through intensive enumerator training and triangulation of information provided- daily debrief sessions were done to iron out issues arising. Data were also triangulated by consulting multiple stakeholders as opposed to one source.

- The study also targeted respondents in project implementation areas and did not include a control group. This led to limitations in addressing TOR 2.1.

- The evaluation was also not able to engage government institutions which led to limited access to data on localization agenda. In this regard, ToR scope 3.2 was not assessed.

- Due to evaluation being done during a crop production period (April/May-October), fewer men were engaged compared to women as they were engaged in agropastoral activities.

4 FINDINGS

4.1 Socio-demographic characteristics of community members

The evaluation engaged community members from the four Payams in Malakal. The table below shows the socio-demographic characteristics of community members involved in the evaluation. Overall, most of the community members engaged were female (59%), were household heads (68%), did not have any form of disability (74%) and were married. The lower proportion of male community members especially in the southern Payam was largely associated with their engagement in or pursuit of livelihoods far from their homes during the day.

The average age across the study areas was 33.2 years and majority of the respondents (94%) had children of their own. In terms of education, 46% of the respondents have never been to school. The average household size was 9 household members, which was cross cutting across the Payams with the exception of Northern Payam where the average household size was 7 members. In comparison, education levels were highest in Central Payam where about 70% of community members had completed primary school or had a higher level. Further analysis indicated education levels were lowest among female community members (52% had never been to school) compared to male community members (37% had never been to school).

Table 4: Demographics of community members

	Total	Eastern	Central	Northern	Southern
Location	100%	24%	26%	25%	25%
Household headship	68%	89%	54%	64%	67%
Gender					
Male	41%	45%	43%	53%	22%
Female	59%	55%	57%	47%	78%
Disability Status, Age and Education Levels					
With Disability	26%	47%	25%	15%	19%
Without Disability	74%	53%	75%	85%	81%
Average Age (Years)	33.2	36.1	31	31.2	34.9
Never went to school	46%	56%	30%	34%	65%
Did not finish Primary school	19%	16%	15%	21%	25%
Completed primary school	13%	18%	18%	14%	4%
Did not complete secondary	11%	5%	19%	11%	6%
Completed High/Secondary school	6%	4%	13%	8%	0%
Completed college/university	4%	0%	5%	12%	0%
Marital Status and household size					
Single	12%	5%	25%	15%	2%
Married	82%	95%	69%	83%	83%
Engaged	0%	0%	0%	0%	1%
Divorced/separated	3%	0%	5%	1%	4%
Widowed	3%	0%	1%	1%	10%
Average Household size	9	9	9	7	9
With Children	94%	100%	89%	89%	100%

4.2 Socio-demographic characteristics of School going children

Overall, 91 school going children were engaged in this evaluation. This represents 10% of students enrolled in the 3 schools. Most of the students engaged were male, did not have any form of disability and 42% belonged to hygiene clubs in their respective schools. The average age was 17 years and was highest among children in Sobat Secondary School (22.4 years). Average age was lowest in St. Andrew where most of the children were in lower primary school. The table below summarizes the socio demographic characteristic of children engaged in the study. The lower proportion of girls being in school may be due to a larger number of girls being out of school compared to boys. According to UNICEF, the largest group of out-of-school children in South Sudan are girls[4].

Table 5: Socio-demographic characteristic of students

	Total	Interior Elementary School	St. Andrew Elementary School	Sobat Secondary School
School	100%	34%	33%	33%
Gender				
Male	66%	58%	53%	87%
Female	34%	42%	47%	13%
Disability Status				
With disability	13%	23%	10%	7%
Without disability	87%	77%	90%	93%
Average Age	17	15.2	13.6	22.4
School Grade/ Class				
Lower primary	30%	32%	57%	0%
Upper primary	37%	68%	43%	0%
Secondary school	33%	0%	0%	100%
Hygiene Club membership (members)	42%	55%	27%	43%

4.3 Project efficiency effectiveness and coherence.

4.3.1 Output to purpose review

This section contains the review of the project's interventions in line with how efficient they were delivered, as well as how they led to the intended end result as per the purpose statement (in line with OECD DAC criteria of efficiency, effectiveness and coherence).

Output 1.1 WASH facilities at target schools/health facility is improved

Under this output, the project sought to rehabilitate one SWAT, strengthen SWAT/water management at community level, extend of water pipeline and installation of water points and install handwashing facilities at the target schools and health centers.

Rehabilitated SWATs

The prolonged conflicts and the outbreak of civil war in December 2013 resulted in the destruction of key infrastructure and institutions in Malakal town, including healthcare facilities, schools and water

[4] https://www.unicef.org/southsudan/what-we-do/education

facilities. This made it difficult for the community to respond to COVID 19. Additionally, due to groups of people meeting in schools and health centers, as well as the state of the facilities, they were considered as places that pose greater risk to COVID 19 infection by community members, leaders, facility staff, WASH and education cluster leaders. To limit the spread of COVID 19, the government had also realized the risks in schools and closed all schools (closed in March 2020 and reopened in May 2021) and set up preconditions for safe reopening. According to the education cluster, these preconditions featured the basic COVID 19 standard operating procedures (SOP) which included schools having clean water, soaps and children as well as staff wearing masks while in school. Notably, decisions on reopening only partly considered individual schools meeting the criteria but mostly considered the spread of infection in a given area.

"Schools are a great risk because children from different areas and if one is infected, it can spread easily and to many students which will also increase risk in the community when they go back home." -KII, Teachers, Interior

"The government closed schools and set conditions for reopening. Schools had to have the basic package for COVID SOP then it was in facilities including clean water in the school the soap, disinfectants and so on."- KII with Education cluster.

"Before the water connection, hygiene was very poor here in the health center. Because people who visit these health centers are patients and we don't know for sure before we diagnose. So, this is a risky environment for transmission." – KII with officer at Bam HC

To stop the spread of COVID-19, along with other COVID appropriate behaviours, the practice of handwashing at regular intervals is a must and thus access to water is vital. The aim of the project was to improve access to safe water at schools, health centers, and surrounding communities by rehabilitating SWATs and supporting fuel and operator labor costs required for SWAT operation. SWATs were considered most appropriate and recommended by the WASH cluster as they had been used to provide safe drinking water and household usage in emergencies throughout South Sudan, especially in areas where groundwater was not available. In Malakal, the availability of the Nile river which is a fresh water body made SWATs suitable because water was readily available and needed to be treated for safe usage. Apart from Bam SWAT which the project aimed to rehabilitate, 6 other SWATs were operating in the county, but could not cater for the needs of the community. Some of them such as the Hospital SWAT used elevated steel tank. Prior to the project implementation, Bam SWAT was nonexistent and the target schools and health centers were not connected to water.

At the time of the evaluation, the project had procured materials for the construction of Bam SWAT from Juba although they took over four months to reach Malakal and thus repair work began in late December. Some of the materials were procured from Uganda, and were delayed due to closure of borders. The construction of the Bam SWAT was still underway. The purification tank and fencing of the SWAT was complete but the elevated steel tank was not yet fully installed. The purification tank was ready and waiting to be used once the elevated steel tank (EST) was completed. Delays in construction were associated with finding qualified labour to install the EST. Labour for SWAT repairs was locally available and water operators had been trained on repairs. While the Bam SWAT was being set up, the project had installed a temporary SWAT with the aid of the WASH cluster. The project requested pillow tanks from the cluster and set up the temporary SWAT[5] which supplied water to the facilities and to the community. Setting up and support of the temporary Bam SWAT was supported by the project in March 2021. The pillow tanks

[5] Temporary SWATs us rubber pillow tanks that are not durable and can be pierced using sharp objects as opposed to semi-permanent ones which are made of iron, metal and concreate and are more durable.

in the temporary SWAT were slightly raised, creating a smaller amount of pressure compared to elevated steel tanks. Thus, the use of the elevated steel tank in the under-construction Bam SWAT had potential to supply water further using gravity, compared to the pillow tanks in temporary SWAT.

On the other hand, the project supported Nile palace SWAT with chemicals, pipeline installation, operators, guards, repairs and fuel. This was also done in supporting improved access to clean water for the community. Prior to the support, the SWAT was operational but the supporting project had ended. Thus, this project offered continued support and this support was offered from the onset of this project. The project covered all operational costs of Nile palace. Without the project and without any other assistance, its operation would have stopped.

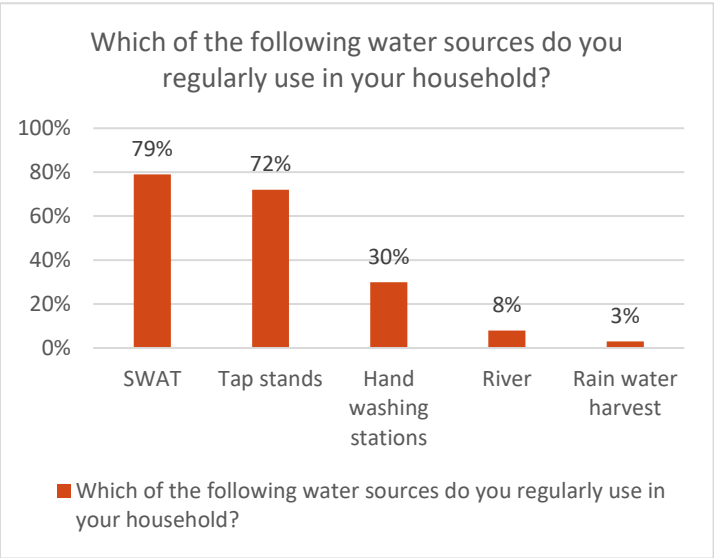
Figure 1: Bam SWAT set up

The supported SWATs supplied water as follows:

Table 6: Areas and facilities served by the two SWATs

Payam	SWAT	Schools	Health centers	Community water points	WMCs
Central	Nile Palace (located); Bam (parts of central)	Sobat Secondary School (Supplied by Nile Palace)	-	2	1
Eastern	Bam, Nile Palace	St. Andrew Primary School (Supplied by Bam SWAT)	-	2	Nile Palace WMC & Bam WMC manage one water point per WMC
Southern	Bam (located)	Interior Primary School (Supplied by Bam SWAT)	Assosa HC; Bam HC (Supplied by Bam SWAT)	7	1
Northern	-	-	-	-	-

Community access to water from SWATs was further supported by quantitative data that indicated water usage for most of the target population was mainly from World vision supported sources across the Malakal county. Overall, 79% of target community members accessed water from SWATS. Most (89%) target community members who used SWATs accessed water on a daily basis. Specifically, the project-supported Bam SWAT was located in southern Payam and served both the Southern and Eastern Payams as well as parts of Central Payam. Prior to the intervention, the southern Payam was not connected and community members had to walk to central Payam water points to access water. At the time of the evaluation, 94% of target community members in the southern Payam used Bam SWAT as their main source of water for their households. Notably, proximity to SWAT had an effect on access to water especially due to the use of pillow tanks in temporary SWATs. On the other hand, the Eastern Payam did not have a SWAT and relied on water points supported by water mainly by Nile Palace SWAT whose operation was coming to a stop following the conclusion of a project which was supporting its operations. Additionally, community members considered the water inadequate and had to walk to other Payams to access water.



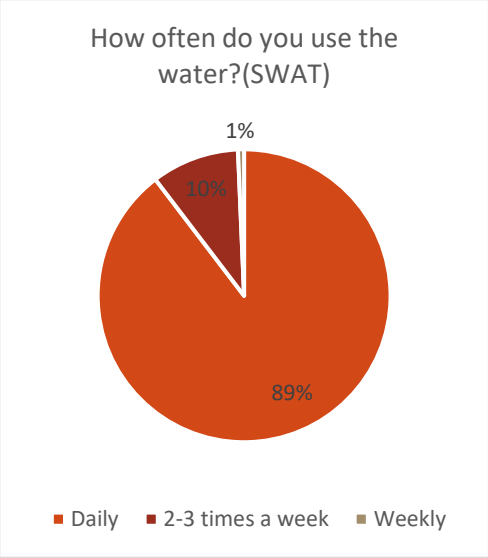


Figure 2: Sources of water in the community and frequency of using SWATs

Notably, water accessed from SWATs was used for washing hands, cooking, drinking and washing clothes as shown in the chart below.

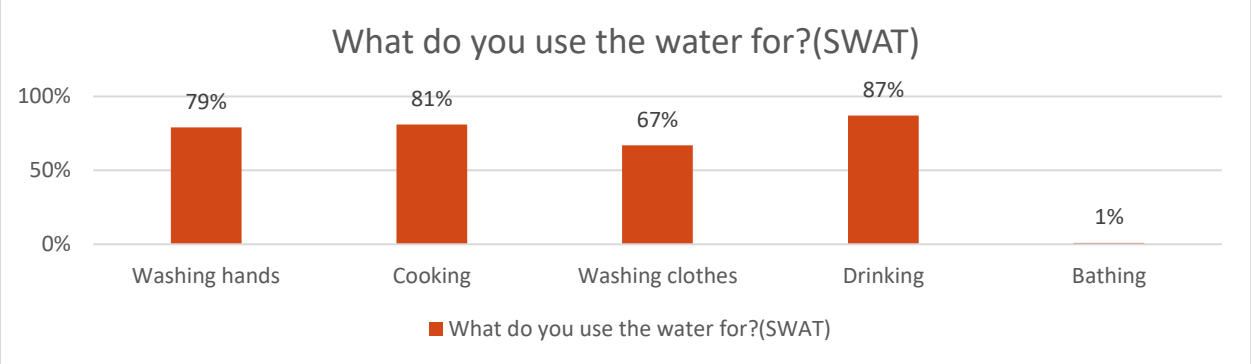


Figure 3: Usage of water from SWATs

Since the project aimed to support repair and maintenance of SWATs for the project period (1 year), the project planned to work closely with the Water Management Committees to establish community-based SWAT maintenance operation plans, which could be carried out even after the project closure. At the time of the evaluation, the project had trained 16 water management committee (WMC) members, 8 from each SWAT (Nile palace & Bam). Majority of WMC members were female (13 out of 16). They were selected from the community to manage the operation and maintenance of the SWATs. Qualitative interviews with the committee indicated they understood their roles and the maintenance plans. These roles included observation of how the SWATs and water supply systems were run, mobilizing the community to clean water points and sometimes cleaning the water points themselves, testing for chlorine levels and reporting to the water operators and World vision, monitoring leakages in the systems and damages done by children as well as conflict resolutions at water points. They were able to carry out these roles under the maintenance plans. WMCs also indicated a need for refresher training mainly on operation of the SWAT, pumping of water from the river, treatment and supply to water points[6]. Notably they were willing to continue working without for community even after the project ended.

Additionally, the project trained 5 water operators and 5 security guards for the Nile palace SWAT and Bam SWAT. Two of the operators and guards were female while eight were male. All were trained on SWAT maintenance and operations. Key informant interviews with water operators indicated that they were satisfied with the level of training provided and they were confident of their skills. Water operators were also confident in their skill to repair the tanks if broken. For example, in an incidence where the rubber part of the semi-permanent tanks was torn, they would use locally made rubber parts to patch the tank. The security guards operated during the night which meant single water operators manned the SWAT during the day. Thus, water operators felt a need for support during the day, given moving of equipment such as the generators was not easy for one person. Water operators and security guards were under incentives from the project. Qualitative interviews with water operators indicated they were not willing to work without the incentives.

"My role is to operate the SWAT. I pump the water about 3 to 4 times a day. I make sure the chlorine has settled well before supplying water to people. I also make sure the materials here are safe during the day but at night we have a security guard. We serve over 3000 people from this SWAT."- KII with Water operator, Nile Palace upgrading site

"I am trained and able to fix these tanks and machines here. We normally use rubber materials made recyclable material in the community to fix the inner part of the tank. Internal damage is rare and only occurs during set up of the tanks." KII with Water operator, Nile Palace upgrading site

"The project employed security guards in addition to water operators. They take care of security during the night. We have had some incidences of theft within the schools and the SWATs"- KII, Project Staff

The water management committee further supported the findings as follows:

"The operators are very active and always available even when we report leakages in the pipeline. They are able to repair. There are also rare incidences of excess chlorine in the water pumped, meaning they understand their work." -FGD, water management committee.

[6] *These were roles of water operators but WMCs were trained on these as a way in which they can support water operators*

WASH FACILITIES AT SCHOOLS

St. Andrew and Interior primary schools had been connected to water from the supported Bam SWAT at the time of the evaluation while Sobat Secondary was connected to Nile Place SWAT. Prior to the project, Sobat secondary and Interior primary school accessed water manually from available water points outside the schools and stored in available buckets. Connection in these two schools was finalized in April when the schools were closed and was to be used once the schools re-opened. During the evaluation, water was not running as schools were closed. Additionally, tanks in all the three schools that had been installed were removed due to insecurity concerns. They were stored in a storage WV facility under the protection of WV. This was to be reinstated once the schools reopened.

Prior to the project, St. Andrew had an existing pipeline which did not have water connection and was deteriorated. The project fixed the pipeline and connected the school to water from the temporary Bam SWAT (March 2021). There was no tap stands constructed (during school time- from March 2021) so they got water directly from the pillow tank and bulbs. In addition, water pressure was not strong enough so it wasn't fully sufficient to cover the water needs. Tap stands in the three schools were constructed after schools had been closed (March-April 2022) and thus students had not used them at the time of the evaluation. Qualitative interviews with students from St. Andrew indicated the school had access to water and children were using water to wash their hands and drink prior to the schools' closure in February 2022.

"Yes, we used water in the tank to wash our hands and also to drink. Before some of us used to carry water for drinking to school." -FGD, Boys, St. Andrew

"The water is not just for drinking and washing hands alone. As you can see, this compound is dusty. So, we have to water it especially for children who study outside the classrooms." – FGD, Girls, St. Andrew

Interestingly, given the design was similar to tap stands students used in the community, they viewed them as easy to use. However, holding onto the valve until the jerry can was filled was cumbersome for some of the students.

"I can see the one here (pointing at a tap stand at St. Andrew) it is similar to what we use at the Port (SWAT) and bam water points. They are easy to use but holding the valve in the sun is tiring."- FGD, Girls, St. Andrew

Waterpoint at St. Andrew

Waterpoint at Sobat

Figure 4:Waterpoints in schools

Handwashing facilities in school

The project aimed to install 9 hand washing stations in the target schools (3 per school). At the time of the evaluation, the project had installed all 9 hand washing stations in January 2022. Due to lack of water connection in Sobat and Interior between March 2021 and February 2022, hand washing stations were filled with water manually by the schools. In St. Andrew, water was connected directly from the SWAT and fed into a tank. However, due to insecurity concerns in schools, facilities installed in schools had to be disconnected and stored in safer areas once the schools were closed. In one incidence, a tank was stolen from St. Andrew primary school. This incidence took place prior to the project. To mitigate further incidences schools were also requested to hire security guards before opening of the schools. KIIs from project staff indicated the schools were on board with hiring guards but one interview with teachers from Sobat indicated they lacked financial capacity to hire guards. The schools were poorly fenced and fencing using iron sheets increased incidences of theft. Iron sheets were often stolen and thus fencing with iron sheets attracted theft. Barbed wire was recommended for fencing the schools.

Handwashing stations at schools were considered easy to use by students engaged in qualitative interviews. This view was further supported by 76% of students. Students who viewed the designs as difficult cited the number installed per school was not adequate especially in the morning when all students were entering the school premises.

"The hand washing facility is easy to use but they are not many and, in the morning, sometimes we have a line" -FGD, Boys, St. Andrew

WASH facilities at Health Centers

Prior to the project, Bam health center and Assosa Health center did not have active pipelines or water points, and water was accessed manually from other sources such as water points in the central Payam. Both Bam HC and Assosa HC were located in Southern Payam and at the time of the evaluation, the project had connected them to Bam SWAT. The project aimed to install 2 hand washing stations in Bam health center and at the time of the evaluation, the project had accomplished the target by installing water points at Bam HC and repairing the existing water point at Assosa HC. Prior to the project, patients accessed the health facilities without washing their hands, which increased the risk of infection for both patients and health facility staff.

Qualitative interviews with health center staff confirmed the water points supplied by SWAT were used by patients, staff and the community. Patients and visitors to the 2 health centers washed their hands and at the entrance and also drank water at the health center water points. Similarly, community members accessed water for domestic usage and washing their hands at the household level from the water points. Health center staff used water from the water point to wash their hands on arrival or after engaging patients as well as fetching water for drinking while at work and usage in their household. Additionally, health center staff viewed installed tap stands as easy to use and convenient due to their proximity in the health center.

"It just at the gate so we can use it as well as the community."- KII, Bam HC

"It is more convenient that the water station has been set. The water station and the tank were installed by World Vision and it is for everyone, it serves the community. They use that water for domestic use." – KII, Bam HC

Waterpoint at Bam HC

Figure 5: Waterpoint at Bam HC

WASH FACILITIES AT THE COMMUNITY LEVEL

Prior to the project, the Southern Payam and parts of the eastern Payam did not have active connection to water. Community members fetched water from water points in the Central Payam which were in longer distances from their homes. This also increased the risks of using water directly from the River Nile, which was unsafe for usage. Through Bam SWAT, the project connected installed four water points in the community. The community water points included; 1 in Assosa center, 1 near Bam SWAT and 2 in Bam Centre, Bam center is 800m away from Bam SWAT. Two water points were in the Eastern Payam while others were in the Southern Payam.

All water points were fitted with valves that controlled access to water and community members had to press them manually to access water. Qualitative interviews with the WASH cluster indicated these were the standard tap stands installed in most parts of South Sudan and in humanitarian settings. They aided in controlling wastage of water and were more durable compared to other taps.

"The tap stands are standards and easy to use. We use them all over in our areas of operation and are easy to maintain."- KII, WASH Cluster

Despite the design being lauded for wastage control, some community members tied the nozzles using plastic bags and threads to ensure continued flow while fetching. Some forgot to remove these attachments and water was left flowing, leading to wastage. Qualitative interview with WMC indicated they had addressed the challenge by removing restraints during surveillance and discouraging community members from the habit. On the other hand, community members acknowledged a change in the behavior and cited most of those engaged in the behavior were children at the water points.

"At the beginning, community members would leave the water running after using threads to tie the nozzles in place but after we sensitized on how they will be the ones to suffer in shortages, they discouraged children from using the threads." – FGD, Water management committee

"We walk around and untie the plastic materials. If community members are at the water point, we talk to them and ask them to refrain."- FGD, WMC

"It used to happen a lot (tying the nozzles) but nowadays only children do it so that they can go and play." -FGD, Women, Northern Payam

Water management of community Waterpoints

WMCs led the community in cleaning of jerry cans. On weekly basis, the project supported Jerry can cleaning at 11 water points getting water from Nile Palace and Bam SWATs with soap. Cleaning was done by community members with soap supplied by WV through WMCs. Qualitative interviews with

community members indicated they had accessed the soap and washed their jerry cans at the water point every Thursday. In terms of challenges, the WMC felt some resistance from some of the community members especially during unclogging drainage and cleaning of jerry cans. Qualitative interviews with community members indicated resistance was due to lack of soaps for washing jerry cans and lack of a sense of responsibility to take part in cleaning of drainage alongside with WMC. They needed identification and operational materials such as branded shirt, reflector and gumboots. Without visible identification such as branded shirts, sometimes WMC members faced challenges solving issues such as conflicts at the water points. Identification materials were not only for visibility in the community but would be ideal tools for their work. Boots would aid when clearing muddy water points and accessing parts of the river bank which are thick with riparian plants such hyacinth. Notably, the WMC members worked as volunteers and were willing to continue working without incentive to ensure continued supply of water within the community. This included offering support in managing the SWATs.

"We mobilize the community to clean the water points and also taste the water. When the chemicals are excessive, the water is not crystal clear and has a bitter taste." – FGD, Water management committee.

"Incentives is not a big issue for us. Work for the community comes first and then if at all any incentive ever comes its ok. If it doesn't come, we will still continue supporting the community." FGD, Water management committee.

The work of WMC was also corroborated by community members as shown below:

"They are community members who have volunteered to work for the community. They help a lot because you can approach them if there is no water at the stands or there are leakages. They also maintain order at the water points. Sometimes people can become aggressive and not follow queues. This causes conflict and WMC members help resolve such issues." -FGD, Women, Southern Payam.

Quantitative data indicated 87% of target community members in Central and 53% in Southern were responsible in keeping the water points clean. Those who did not clean the station were the earlier mentioned who resisted due to lack of soaps and perception that it was the work of WMC only. In comparison, the southern Payam had the lowest number of community members engaging in cleaning of water station. This was associated with the finding that the water points were fairly new to the Payam and WMC were still engaging members on how to keep them clean. Additionally, community members in the South seemed more reliant on soaps provided by the project and the WMCs to engage them in cleaning of the waterpoints and their jerrycans. This indicates the WMC in Southern needed to conduct more community engagement in cleaning of waterpoints. Key issues such as identification and visibility materials for WMCs could also improve their approach in the community.

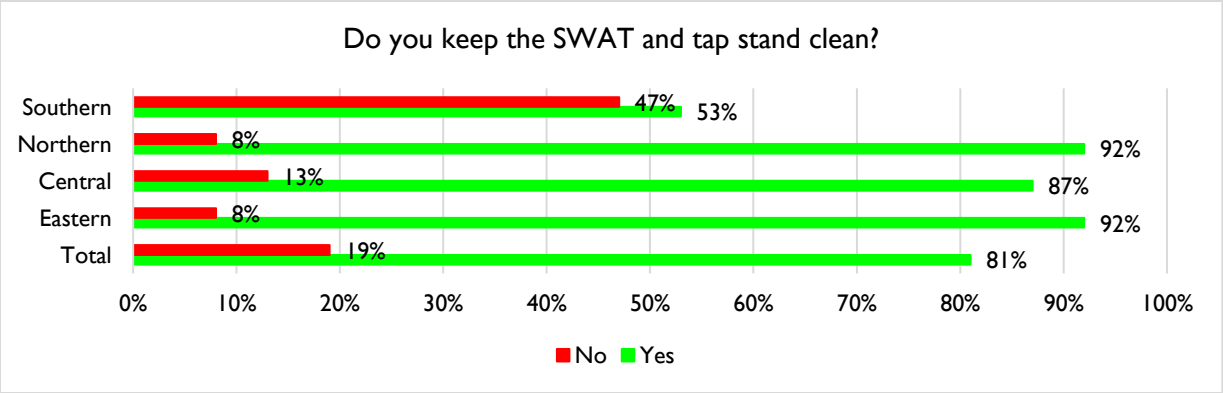


Figure 6: community role in cleaning SWAT

Quantitative data from community members indicated majority (84%) turned off water after usage. In payams served by Bam SWAT, 70%, 89% and 95% of community members in southern, eastern and central payams turned off water after usage. The automatic valves aided in turning off water as releasing the valve stopped the water from flowing. This was also the main reason given by community members who did not turn off water on their own.

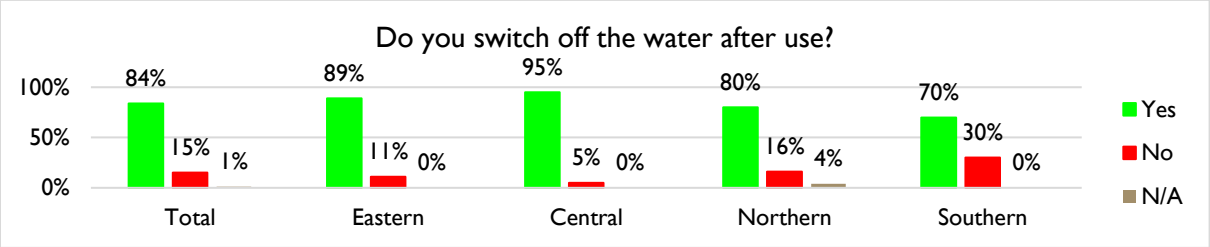


Figure 7: Water loss prevention at waterpoints

Output 1.2 Increasing knowledge on C-19 prevention measures for target facility staff

The project targeted training on COVID-19's Information and Infection Prevention Law[7] provided to teachers at target schools, thereby contributing to the safe reopening and running of schools in consideration of measures against COVID-19 infection. Schools closed in March 2020 (due to COVID) and reopened in May 2021. The implementation period coincided with the reopening but most activities were undertaken after the reopening. The project targeted training 37 teachers and at the time of the evaluation, it had surpassed the target by 3 teachers. The trained teachers comprised of 13(11 M, 2F) from Interior elementary school, 11 (11M, 0F) from St. Andrew, and 16(13M, 3F) from Sobat Secondary School. Training included: COVID-19 Basics and Symptoms; Spread of COVID-19 virus and measures of prevention; COVID-19 high risk groups; Importance of handwashing – practice with soap, ash and chlorinated water; Preparation for Safe School Reopening; School Management Organizations and their roles; Relationship between PTA and school; Promoting community participation in COVID-19 awareness; and Hand hygiene.

Qualitative interviews with teachers form Sobat and Interior, indicated the training was delivered in a comprehensive manner in which teachers could understand, practice and easily train students. They were also able to use the knowledge gained to protect themselves against COVID 19, train students to protect themselves and also enforce the measures in school. Measures enforced in school included washing of hand and wearing of masks. Some of the knowledge they could not have accessed without the project included; COVID 19 high risk groups, COVID 19 facts, measures of prevention, and handwashing methods.

"Yes, we were trained on COVID 19 prevention measures and reopening of schools. It included practical parts which enabled us to understand it better." – KII, Teachers Interior

"Before the training, we only accessed COVID 19 information from media and government announcements but after being trained, we learned more on how to protect ourselves and also share that knowledge with others." - KII, Teacher Sobat

Output 1.3 Strengthened community engagement and knowledge on COVID-19

The main methods through which COVID 19 awareness creation was done in the community was through PTA members and through trained students. A total of 34 (22B, 12G) school children were also engaged

[7] National COVID-19 Strategic Preparedness and Response Plan

in quarterly training on COVID 19. On the other hand, 21 SMC/PTA members had received training on COVID-19. Out of the 21, 17 were male and 4 were female. Thus, the project had achieved its target of training 21 PTA members. Qualitative interviews with the PTA/SMC members indicated they understood the training provided and the key areas they understood most included; what COVID 19 was, transmission, risks and protection measures. The project also surpassed its target of 2,000 of households receiving COVID-19 awareness sessions by 15% as 2,293 households had been reached at the time of this evaluation. PTA/SMCs reached these household mainly through household visits but supported by public announcements. In addition, messages were also disseminated through students especially within their households which indicates the number of community members could be higher than 2,293 households. Qualitative interviews with PTA members indicated the training as well as the materials for sensitization they could use to reach the community (megaphones and introduction documents) improved their understanding and ability to reach out to more community members. Megaphones were useful in public announcements and when engaging groups and documents were used for demonstrations and for reference. Children on the other hand indicated in FGDs that their level of influence was more among their own household members. Most (81%) students had shared COVID 19 awareness messages with the community.

"The training and the materials have helped us reach the community more. We also have introduction documents and megaphones that help us." -FGD, PTAs

"We share the information with our family members and children at home and in school." -FGD, Boys Sobat

In terms of access to awareness creation, 52.5% of community members had been engaged. Some of the community members clarified that they were reached through door to door campaigns by PTA members as opposed to a formal training session. Qualitative interviews with PTA members indicating accessing people in towns such as the central Payam was easier than in the rural area where settlements are sparse. The main types of awareness creation sessions accessed included how to prevent COVID 19, its symptoms, how it is transmitted and the groups most at risk. Notably, more female community members (70%) participated in awareness creation compared to male community (35%) members. Qualitative data indicated this was due to men being engaged in livelihoods during the day. FGD with PTA members indicated they tried to engage men at market places and in their places of work.

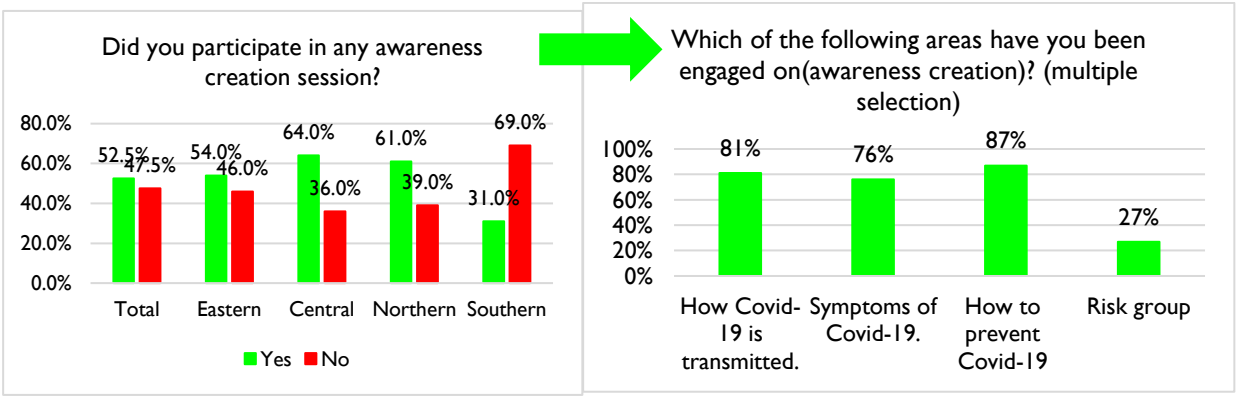


Figure 8: community participation in COVID 19 awareness creation

COVID 19 information sources for community members

The main sources of COVID 19 within the community was PTA members (92%) among others as shown in the table below. Due to World Vision labelled materials, community members often mistook PTA members for WV hygiene awareness instructors. Further analysis indicated PTA members' awareness creation was the most trusted source of COVID 19 information in the community. Qualitative interviews indicated children were also very trustworthy to their parents.

Table 7: Sources of COVID 19 messages

From where/whom did you learn about COVID 19?	
PTA/SMC	92%
Teachers[8]	35%
The health center	55%
Community leaders	37%
Posters,	30%
Radios	50%
Government offices.	33%
I learnt from my son/daughter	18%
I learnt from my neighbor/friend	11%

"*We trust the World vision staff who use the megaphones, radios, government and also our very own children. We sent these children to study so that they can also enlighten us.*" -FGD, Female, Northern Payam

Awareness creation among students

Among students, hygiene club members and teachers had been trained by the project to create awareness in school. Quantitative data analysis indicated at least 66% of all students had been engaged on COVID 19 and infectious diseases awareness, prevention methods. Awareness creation was lowest in St. Andrew and highest in Sobat. Qualitative data indicated some of the trained teachers had transferred from the school and the learning environment was also not conducive in St. Andrew. Cross tabulation of the quantitative student data indicated all hygiene club members engaged in the evaluation (38) had been trained. Notably, St. Andrew had the lowest number of hygiene club members reached by the evaluation (8).

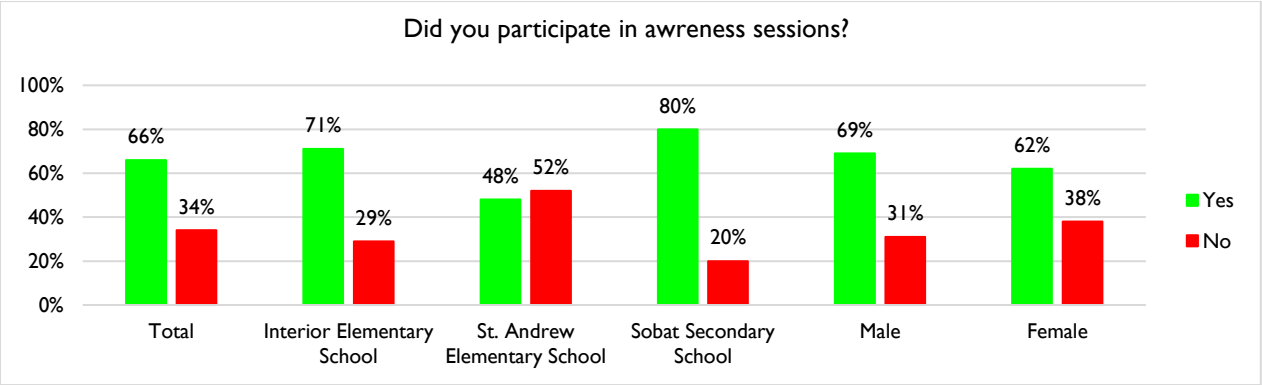


Figure 9: Participation in awareness sessions/ training in schools

[8] Teachers were not trained to engage the community members directly

WASH kits to schools

The project intended to supply WASH kits to all three school to aid in COVID 19 prevention and reopening of schools. Prior to supply of WASH NFIs, pre-distribution training for Hygiene Club members from 3 target schools was conducted. The training featured participation from 18 boys, 17 girls and 5 representative teachers from 3 schools (male 3, female 2). The aim of the training was to sensitize the students on how to use the NFIs. At the time of the evaluation, the project provided: 15 Infra-red thermometers, 750 reusable masks, 5 dozen hand sanitizers 60ml, 10 cartons of disposable masks, 4 mega phones, 315 cartons of solid soap, 12 Jerry cans of liquid soap. These were supplied on 1st February, 2022, indicating students did not have much interaction with the kits prior to holiday closing of schools. This may be the reason why out of the 48% who had experienced challenges in observing COVID 19 measures in school, 51% cited inadequate soap. Additionally, only 2% had seen the use of disposable facemasks, with majority rarely seeing them in school. Qualitative interviews with students indicated that they had received masks, and used thermometers from the project prior to closure of schools. Due to security concerns, the project had stored thermometers during the school holidays and would be handed over back to school once they reopened.

"We received masks which we used when coming to school. This helped because accessing masks is difficult due to costs." -FGD, Boys Sobat

"They have done a lot, giving us soap every Friday to wash out jerry cans, setting up this water station and also training our children in School and teachers." -FGD, Women-Southern Payam

Quantitative data with students indicated prior to the closure of schools, students had seen the WASH NFI being used at school. With the exception of soap, all other NFI had only been supplied once to schools. Megaphones in the last week of school not seen by most and this is due to usage by PTA members as well as safety keeping.

Table 8: Visibility of NFIs in school

During the last 7 days of school, which of the following NFIs distributed by World Vision have you seen used in school?[9]				
NFIs	Yes	Sometimes	Rarely	Never
Infra-red thermometer	72%	24%	2%	2%
Reusable face masks	43%	41%	9%	7%
Hand sanitizers	48%	38%	8%	6%
Disposable facemasks	2%	13%	48%	37%
Mega phones	19%	33%	15%	33%
Solid soaps	62%	26%	2%	10%
Liquid soap	56%	17%	10%	17%

[9] *Question focused on the last 7 days of school, before the closure for holidays*

How outputs contributed to achievement of outcome "1. Improved access to water services at targeted facilities in Malakal to prevent the spread of C19".

Use of SWATs and community water points

Prior to the project, community members had challenges accessing adequate supply of water, and the amounts accessed were mainly used for basic needs (food preparation, drinking and washing clothes) as opposed to washing hands for hygiene and COVID 19 prevention. Additionally, some of the community members especially in Southern and Eastern Payams had to travel long distances to access water from water points in other payams. Furthermore, the two payams did not have SWATs.

At the time of the evaluation, quantitative analysis indicated that access to water had improved among 73% of community members over the project period. Notably, this percentage included community members from the Northern Payam which was not directly supported by the project in terms of access to water. This may indicate the new water interventions in the other three payams may have eased the pressure on the water points in the Northern Payam. Among the three directly supported Payams, an average of 70.3% cited improved access to water. In the Southern Payam that was supported by Bam SWAT and did not have prior water connection, 90% cited improved access. Parts of the Central Payam were also served by the constructed Bam SWAT, and 72% had experienced improvement in access to water. The Eastern Payam was supported by two main sources, one from Bam SWAT, one from Agro-mechanic SWAT and partly complemented by Nile Place SWAT. In the Eastern Payam, however, only 49% experienced improved access. This is because, Bam EST was not yet done which was expected to use gravity to supply to longer distances within the Eastern. Access was slightly higher among female community members in comparison to male community members. This could be associated with the roles of fetching water where women were more involved compared to men. This was further corroborated by focus groups with community members as follows:

"Women are the ones who mainly fetch water followed by children and then men rarely do it. They are busy with looking for work."- FGD, Women, central Payam

"It's mainly women and children who fetch water but sometimes men also help." -FGD, Men, Eastern Payam

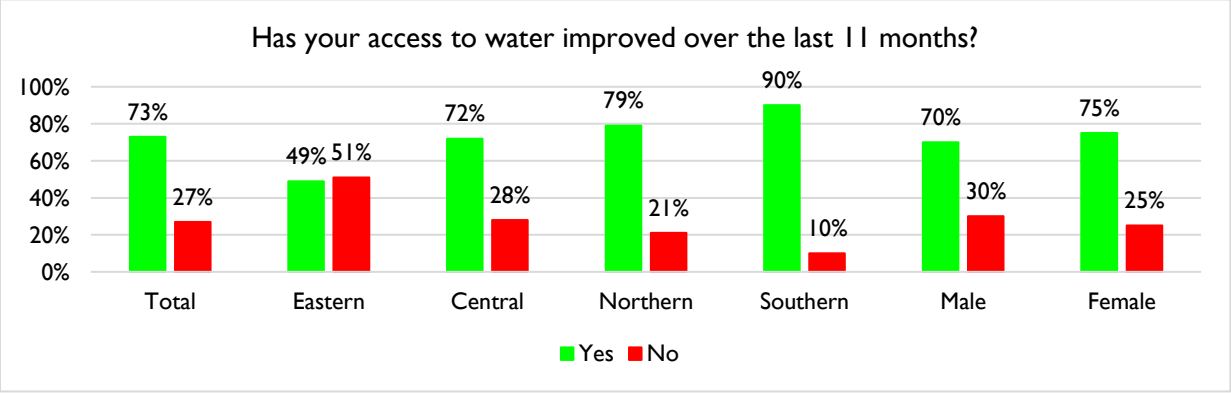


Figure 10: Improvement in access to water in the community

Out of the 70.3% who had experienced improved access, improvement was experienced in terms of cleanliness, easy access, closer proximity and quantity as shown in the chart below. Majority (69%) associated improvement with the water access being clean and least (27%) associated improved access with availability of water for handwashing. This trend was similar across the Payams and for both genders.

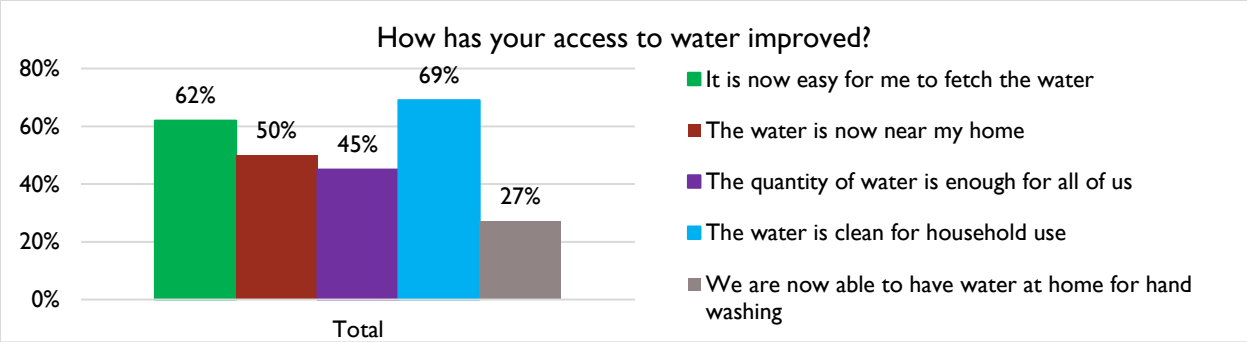


Figure 11: ways in which access to water had improved

The water accessed was also adequate for 73% of community members to practice safety measures against COVID 19. In the Bam SWAT supported Southern Payam, 85% had adequate access as shown in the chart below. Despite the Eastern Payam having two water sources (Bam and Nile Palace SWATs), only 49% cited access to adequate water to practice COVID 19 prevention measures. The pressure from the temporary Bam SWAT was low and after the completion of the elevated steel tank, supply to the Eastern Payam was expected to improve.

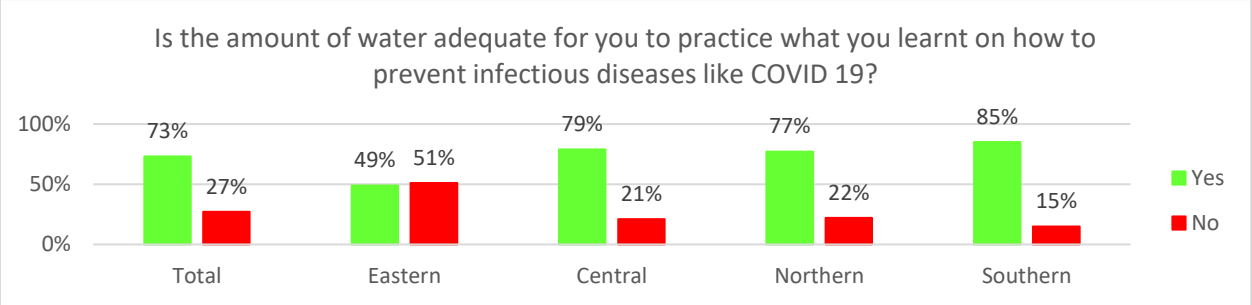


Figure 12: Adequacy of water access to practice Covid 19 prevention measures

Use of handwashing facilities at schools and HCs

Overall, water accessed at handwashing facilities was mainly used to wash hands. An average of 74% of students used water at schools to wash their hands. Interestingly, all students from Sobat and 80% from Interior used hand washing facilities. In contrast, only 43% from St. Andrew used hand washing facilities. Qualitative interviews indicated the stations were not sufficient for all students and the lack of fence within the school made it easier for some students to skip the hand washing queues and go to class. Fences helped in ensuring all students use the gates and can wash their hands on entrance. Fences in Interior were better followed by Sobat while in St. Andrew they are non-existent.

"Some students who don't want to wait for their turn sneak into the school without using the hand washing stations." – FGD, Girls, St. Andrew

Table 9: Water usage in School

What do you use the water accessed in school for?				
	Total	Interior Elementary	St. Andrew Elementary	Sobat Secondary
Washing hands	74%	80%	43%	100%

Additionally, 57% of students had access to sufficient water to meet their hand washing needs. While 77% in Interior had access to suffient water for hand washing, 63% in St. Andrew did not.

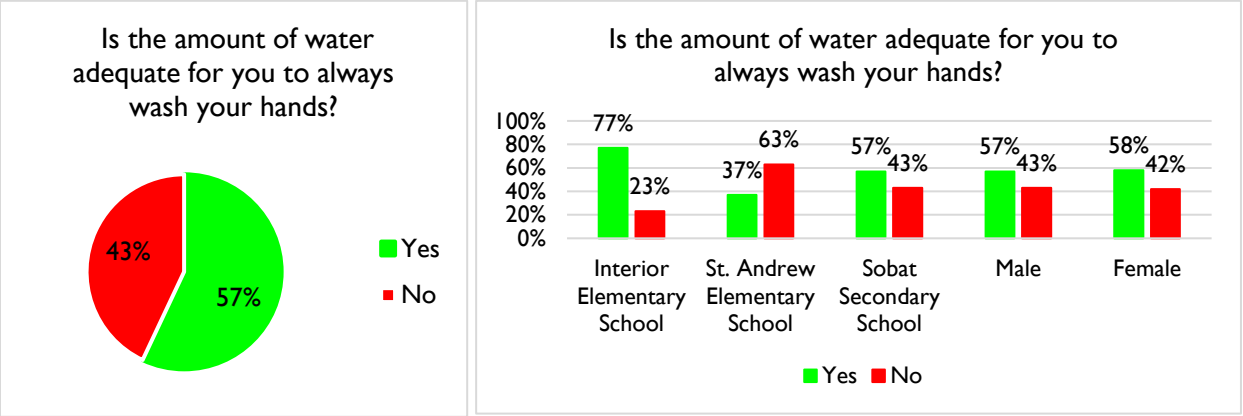


Figure 13: Adequacy of water to wash hands for students

On the other hand, hand washing facilities in Bam HC were installed and were already being used by patients and staff in the facility. Qualitative interviews with health center staff indicated the hand washing facilities were used by patients to wash their hands on entry to the health center and staff on entry as well as after examining patients. Availability of hand washing facilities at Bam HC constituted of one of the reasons community members considered the HC safe from COVID 19. Qualitative interviews with community members indicated the health center was safe as patients could wash their hands at the gate as required forCOVID19 prevention. However, this was not sufficient as at the time of the evaluation, HC staff were not wearing masks, similarly to patients. This indicates the provision of water alone in the health facilities was not sufficient for the prevention of COVID 19.

How the project contributed to increasing knowledge on C-19 prevention measures for target facility staff

Analysis of the quantitative data indicated the main sources supported by the project were the most accessed sources of COVID 19 information by students. These included teachers, hygiene clubs and PTA/SMCs. A combination of these methods was able to reach majority of the students. Interestingly, access to COVID 19 information through a hygiene club in St. Andrew was low. This could indicate the club was less active compared to clubs in other schools and could have also contributed to the poor access to awareness creation in the school.

Table 10: Source of COVID 19 information

From where/whom did you learn about COVID 19?	Overall	Interior Elementary School	St. Andrew Elementary School	Sobat Secondary School
My teacher	92%	94%	93%	90%
Hygiene club members	44%	48%	13%	70%
Siblings	10%	6%	7%	17%
Other students	19%	16%	17%	23%
PTA/SMCs	38%	39%	37%	40%
The health center	43%	29%	37%	63%

Community leaders	24%	19%	13%	40%
Posters	37%	35%	23%	53%
Radios	48%	48%	33%	63%
Government offices	15%	6%	0%	40%
Parents	16%	10%	13%	27%

Uptake of COVID 19 prevention measures among students

After training, students were expected to practice the measures and also influence their households and community members. Since the schools were closed, the evaluation gauged practice quantitatively at the household level. However, qualitative interviews with students indicated majority practiced COVID 19 measures while in school but sometimes had challenges at home. Practice in school was supported by availability of water in school, handwashing stations as well as teachers who reinforced practice. At the household level, 31% of students always took preventive measures and 47% practiced sometimes. Notably, an average of 13% never practiced any of the preventive measures at home. Additional analysis indicated 30% adopted 1 measure; 16% adopted 2 measures; 11% adopted 3 and 4 measures respectively.

Table 11: Prevention measures undertaken at home

During the last 7 days, how much of the following measures have you taken to prevent Spread of COVID-19 at home?				
Hygiene Practice/C19 preventive measures	Always	Sometimes	Rarely	Never
Frequently washed my hands with soap and water for at least 20 seconds / Sanitized	45%	41%	10%	4%
Wore a mask in public	23%	48%	11%	18%
Ensured physical distancing in public	22%	51%	11%	16%
Covered your nose and mouth with your bent elbow or a tissue when you cough or sneeze	34%	46%	5%	14%
Average	31%	47%	9%	13%

Further analysis indicated students from St. Andrew had a low practice rate at home compared to others. This was mainly because majority (52%) of students in St. Andrew had not been trained. Comparison by age and gender was not significant.

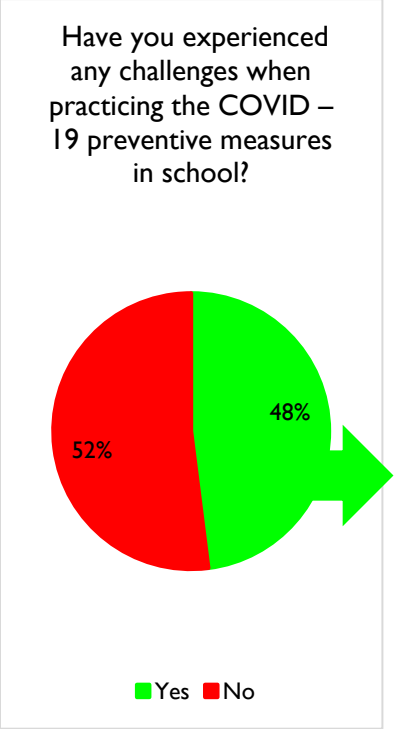
Table 12: practice by gender and schools

	Interior Elementary School	**St. Andrew Elementary School**	**Sobat Secondary School**	**Male**	**Female**
Frequently washed my hands with soap and water for at least 20 seconds / Sanitized (always)	61%	30%	43%	48%	39%
Wore a mask in public (Always)	23%	10%	37%	23%	23%
Ensured physical distancing in public (Always)	19%	7%	40%	22%	23%
Covered your nose and mouth with your bent elbow or a tissue	29%	20%	53%	38%	26%

when you cough or sneeze (Always)					
	33%	17%	43%	33%	28%

Challenges in practicing COVID 19 preventive measures in school and at home

Overall, 48% of students had challenges practicing COVID 19 measures in school. Most of these students were from Sobat Secondary School and were male. Small classes that could not accommodate social distancing, inadequate supply of water, soaps as well as challenges in enforcement were the main challenges. However, challenges such as believing COVID 19 was a myth, they could not contract COVID because they were young and did not know how to prevent COVID 19 was associated with lower primary students in St. Andrew.



What the challenges that you experienced when practicing the COVID – 19 preventive measures at school?	
Believe that COVID – 19 is a myth, and not existent	18%
I cannot contract COVID 19 because I am young	14%
Do not know what to do to prevent COVID 19	16%
Do not want to wash hands	11%
Do not want to wear masks	14%
We did not use to wash our hands before the pandemic so not used to it	7%
Not enough supply of water in school	48%
Lack of adequate soap for washing our hands in school	57%
Our classes are small in size for us to maintain 2M social distance	55%
Others are not practicing preventive measures in school	41%
We don't have anyone who enforce regular practice in school	11%

Figure 14: challenges when practicing the COVID – 19 preventive measures in school

At home, 62% of students had challenges practicing COVID 19 prevention measures, which was higher than 48% in school. Similarly to practicing in school, more students from St. Andrew had difficulties practicing compared to students in other schools. St. Andrew was located in Eastern Payam where among the three payams supported in the water intervention had the highest proportion of adults (44%) having challenges in practicing. Similarly, in terms of improved access to water, the Eastern Payam had the lowest among adults (49%) compared to Central (72%) and Southern (79%). Inadequate water was the main challenge to practicing in the Eastern Payam among both adults and students. Access to water was expected to improve after the completion of the Bam SWAT EST.

On the other hand, Sobat Secondary school was located in Central Payam and challenges on practicing at home could be attributed to the fact that out of the 4 Payams, only in the Central Payam where 11% of

adults had never practiced. Additionally, given that the Central Payam was a trade center, other practices such as social distancing were difficult to uphold for both students and adults.

Interior primary school was located in the Southern Payam where Bam SWAT had been constructed and the community members had improved access to water (90%). Fewer students from Interior experienced challenges in practicing while at home compared to those in other schools. Out of the 44% of community members who had challenges in practicing COVID 19 measures, inadequate access was only a factor for 12% of adults in the Southern Payam compared to 57% in the Central and 100% in the Eastern.

Poor access to soaps, smaller houses and lack of enforcers at the household level were some of the challenges as shown in the table below. Notably, these challenges were similar to those facing adults at the household level. On the other hand, qualitative interviews with students indicated access to hand washing stations with soap and masks in schools improved their practice in school.

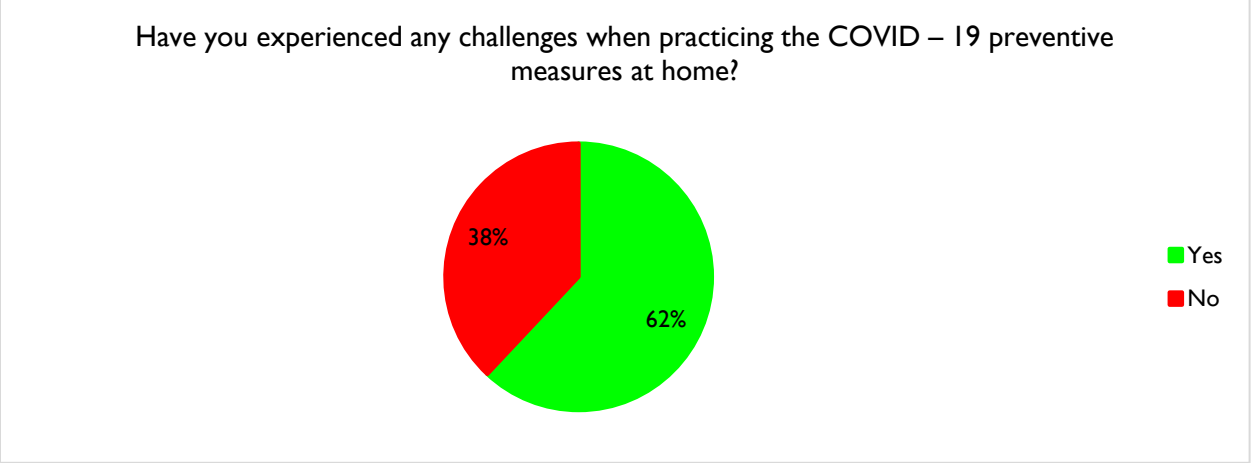


Figure 15: challenges when practicing the COVID – 19 preventive measures at home

Table 13:challenges in practicing at home

What the challenges that you experienced when practicing the COVID – 19 preventive measures at home?	
Believe that COVID – 19 is a myth, and not existent	14%
I cannot contract COVID 19 because I am young	7%
Do not know what to do to prevent COVID 19	11%
Do not want to wash hands	16%
Do not want to wear masks	20%
We did not use to wash our hands before the pandemic so not used to it	15%
Not enough supply of water in at home	34%
Lack of soap for washing our hands at home	56%
Our house is small in size for us to maintain 2M social distance	35%
Others are not practicing preventive measures in at home	31%
We don't have anyone who enforce regular practice at home	21%
Never practice	1%
We live as a family so social distancing is not an option	1%

Further analysis indicated more students (43%) found it easier to practice in schools than at home (32%). This was similar for the both gender. However, more students in St. Andrew found it easier to practice at home (33%) than in school (30%). This was mainly associated with access to inadequate water and soap. Availability of water, soaps and enforcers in schools were some of the reasons to complying with the measures while in school. Additionally, 66% of students considered schools a safe place from COVID 19. They associated safety with access to COVID 19 information, availability of water, hand washing stations and prevention measures being enforced. Key informant interviews with teachers indicated schools sent children back home who were not willing to observe COVID 19 prevention measures.

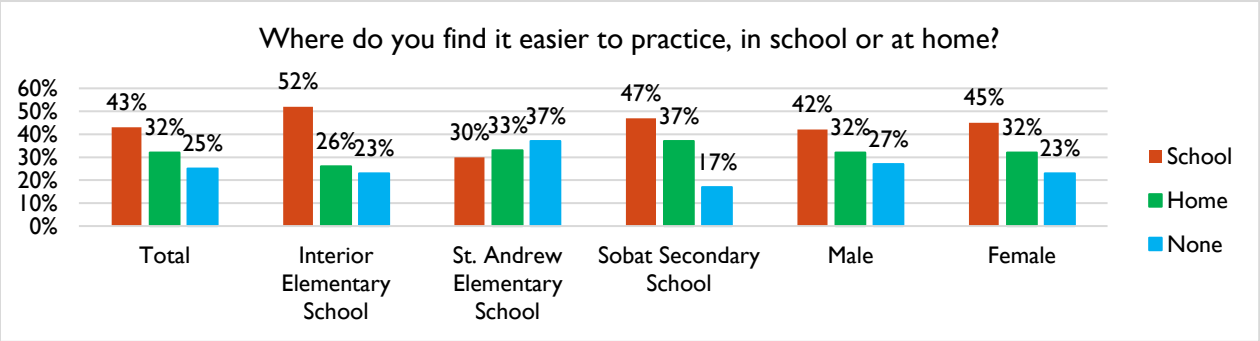
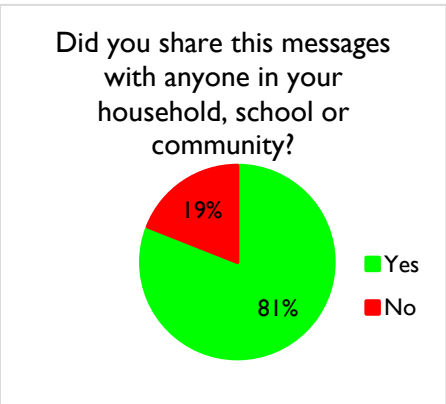


Figure 16: comparison of practice at home and at school

How the project contributed to strengthened community engagement and knowledge on COVID-19

Students sharing of COVID 19 prevention messages with the community

One of the key aims of the project was to ensure maximum number of community members are reached through awareness creation. The project used PTA/SMCs and students to disseminate the information in the community. Trained students would disseminate the information to their households and community members, leading to improved uptake of the prevention measures. Overall, most (81%) students who had been trained had shared messages with their households, school-mates or community members. Specifically, 93% of students who shared did so with school friends, 81% shared with family members and 72% with their neighbors. However, quantitative data from adults indicated only 18% had received information on COVID 19 from their children. Further analysis of adult data indicated only 39% had children in the three target schools and from that cohort, 89% who received COVID 19 information received it from their children.



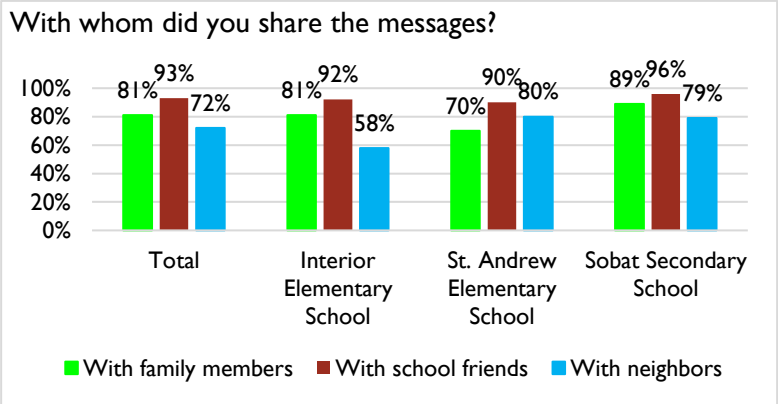


Figure 17: Sharing of messages by students

Uptake of COVID 19 prevention measures at the community level

Most of community members practiced multiple ways to prevent COVID 19. These methods were cross cutting among the Payams and across gender. Frequent hand washing, wearing masks, and social distancing were the most common measures. Further analysis of quantitative data indicated wearing of mask and social distancing had declined significantly (for both children and community members) within 7 day prior to the evaluation, and only 24% had worn masks. The decline was mainly associated with the government's announcement (1st of February 2022[10]) of easing of protective measures. Qualitative data indicated most of the residents were practicing wearing of masks and avoided social gatherings within the whole of 2021. Notably, in the Southern Payam, 37% indicated they ensured social distancing while in public which was lower in comparison to other practices and other areas. Further quantitative analysis indicated respondents who rarely or never practiced social distance was due to others not practicing (78%), which became difficult to control their actions. Others included shred homes with extended family and village settlement were households lived closer to each other.

Table 14: COVID 19 prevention measures undertaken by community members

	Total	Eastern	Central	Northern	Southern
Frequently washed my hands with soap and water for at least 20 seconds / Sanitized	84%	99%	73%	78%	88%
Wearing a mask in public	73%	56%	65%	99%	72%
Ensuring physical distancing of 2M in public	70%	79%	71%	94%	37%
Covering your nose and mouth with your bent elbow or a tissue when you cough or sneeze	75%	74%	61%	88%	77%
Never practiced	3%	0%	11%	0%	0%

Apart from easing of measures by the government, uptake of measures was affected by challenges such as insufficient water and soap. Notably 44% had challenges in practicing COVID 19 prevention measures. High cost of masks was also a factor in wearing of mask. Qualitative interviews with community members revealed that one mask costed about 500 SSP (Approx. 1.2 USD). This was perceived as unaffordable by most of the community members. Other challenges were as follows:

Table 15: Challenges for community members in practicing preventive messages

What the challenges that you experienced when practicing the COVID – 19 preventive measures?	
Believe that COVID – 19 is a myth, and not existent	22%
Not enough supply of soap	74%
Not enough supply of water	63%
Do not want to wash hands	11%

[10] Radio Tamazuj, 3rd of March, https://www.radiotamazuj.org/en/news/article/south-sudan-lifts-COVID-19-partial-lockdown.

Masks are expensive	19%
Do not have enough physical space	32%
Do not think COVID 19 will affect me or my family	12%
We did not use to wash our hands before the pandemic so not used to it	16%
Others are not practicing preventive measures	27%
No one to enforce the preventive measures	12%
I sometimes forget wearing a mask	1%

As shown in the table above, 63% cited insufficient water. These community members were mainly from the Eastern Payam which did not have a SWAT but was supplied by both Nile palace and Bam SWATs as well as Agromechanic SWAT which was not part of this project. Increased access to water was expected after the completion of the elevated steel tank at Bam. This tank was going to use gravity to supply to longer distances including the Eastern Payam.

4.3.2 Relevance and impact

This section contains the assessment the contributions of the project to Humanitarian Response Plan 2020 Addendum and JPF's program goals, particularly in terms of the following objectives and questions (in line with OECD DAC criteria of impact and relevance).

Preventing transmission through awareness creating, contributing to positive behaviour change:

1.1 Target of the vulnerable population

This project aimed to target the most vulnerable population. Within the context of South Sudan, the risk of a rapid spread of COVID-19 was deemed high by IOM and was associated with the country's weak health system, low water supply coverage, poor hygiene and sanitation services, as well as the challenge of maintaining key humanitarian supply chains through neighboring countries. Prior to the civil conflict outbreak in 2013, Malakal Town had been South Sudan's second largest city outside of Juba. The extent of the destruction of the town was considerable and the city has yet to be able to recover from the heavy fighting between government and opposition forces that saw the area switch hands multiple times by mid-2014. Fighting again re-erupted in 2015, further devastating the town[11]. The fighting disrupted normal farming cycles, and severely imperiled livelihoods, especially around Malakal town. Qualitative interviews with community members indicated affected livelihoods left members vulnerable to COVID 19 as they had difficulties coping with the economic challenges of COVID 19. Additionally, Malakal is easily accessed from Ethiopia and Sudan but conflicts and COVID 19 affected access, limiting business and livelihoods. Movement from these countries to Malakal also increased the risk of COVID 19. Targeting the area for COVID 19 prevention was important for long term economic and social development.

"Lack of income is a main problem. We used to be a big town with a lot of income generating activities but nowadays it's just most people don't have any income generating activities. And with COVID you have to decide whether to buy food for children or buy masks and soap." -FGD, Men, Central Payam

[11] South Sudan - Urban Multi-Sector Needs, Vulnerabilities and COVID-19 Impact Survey (FSNMS+), Malakal Town (December 2020 - January 2021)- DTM/IOM

The continued conflict and floods in the area also contributed risks among the community through population movement and overcrowding in the host communities. This was observed in the Central Payam where IDPs had settled in overcrowded areas and without proper protection from COVID 19.

The continued conflict also affected existing infrastructure, including healthcare facilities, churches and mosques. Malakal Teaching Hospital is the key healthcare facility in the county and broader region and is supported by humanitarian organizations. In 2014, the hospital was attacked and looted and a number of civilians were killed[12]. This weak healthcare system also compounded vulnerability to COVID 19. Interviews with health center staff indicated that, prior to the project, Bam health center did not have water connection and hand washing facilities while water stands in Assosa HC was nonfunctional. This left staff and patients vulnerable to COVID 19.

In addition, qualitative interviews and observations during the evaluation indicated schools' infrastructure was poor and rendered students and teachers vulnerable. The classes were small in size for students to observe social distance while in St. Andrew, some of the students studied out due to a limited number of classes. Students studying outside were exposed to dust from the neighboring road. Prior to the project the three schools selected also did not have active connection to water.

Other factors that compounded vulnerability of the community included usage of the Nile river water directly and poor education levels. Due to the availability of water from the Nile, some community members used water directly from the Nile which was risky to waterborne diseases. Despite the availability of 7 SWATs and multiple water points at the time of the evaluation, 8% of community members used water from the river. The main reason of using water was due to longer distances to water points compared to the river. This indicates gaps in accessing water supply, which is considered key in fighting COVID 19.

On the other hand, low educated populations are most likely to share and believe misinformation on COVID 19[13]. Within the area, 46% of community members had never been to school, and 19% had not finished primary school level. Additionally, despite majority (52.5%) of community members accessing awareness creation session on COVID 19, 22% still believed it was a myth and did not exists. This indicates vulnerability associated with access to information and low levels of education. Overall, 96% of the 22% who believed COVID 19 was a myth had never attended school while the rest had not finished primary school.

1.2 Assessment of the communication approach used in the project

The project used existing settings (PTA, teachers and students) within the community to engage the community. The project trained 35 male teachers and 5 female teachers and all teachers trained from St. Andrew were male. Out of the 21 PTA members trained, 17 were male and 4 female while among children trained, 22 were boys and 12 were girls. Notably only 1 girl was trained from St. Andrew.

The project used teachers to training hygiene club members in schools and evaluation data indicated teachers were the most trusted sources of information for students. Overall, 92% of students had accessed COVID 19 information from teachers and 71% cited teachers as the most trustworthy source of information. Additionally, all hygiene club members engaged were trained and all were sharing messages with others. Qualitative interviews with students indicted they were also trusted. Given teachers were part of the community as well, about 35% of community members also cited to have accessed information

[12] https://www.csrf-southsudan.org/county_profile/malakal/
[13] https://news.ku.edu/2020/04/28/study-shows-vulnerable-populations-less-education-more-likely-believe-share

on COVID 19 from teachers. Furthermore, the use of students also had a positive impact in the community as 81% had shared the messages with community members. This worked well in ensuring messages reached more community members.

The use of PTA members was also hailed by community members in qualitative interviews. These were members of the community who were known and trusted. Moreover, they used identity materials of World Vision which has a trusted reputation in the community. Overall, 92% of community members had accessed COVID 19 information from PTA members and were the most trusted source for 86% of community members. The information from PTA members was further circulated within the community as 84% of engaged community members shared messages with other community members.

The project also had an understanding of community dynamics within the area. Qualitative data indicated most of community members who fetched water were female. In this regard, the project engaged the community to select members of water management committees and 81% of members were female. Qualitative interviews indicated this worked well especially in mobilizing community members to clean the water stations. Additionally, WMCs were also key in conflict resolution especially among women at the water stations.

"They are able to get two women in conflict at the station to resolve their issues because they are women and also understand the issue." -FGD, Women, Northern Payam

Scaling-up WASH response through increased handwashing stations and targeting public places like markets and schools (in preparation for reopening) to prevent the spread of the virus:

1.3 Assessment of contributions of the project to infection control and prevention measures in the target schools and to proper use of water in the health center, ensuring continuity of these essential services in the midst of the pandemic.

Prior to the project support, the health centers and the supported schools did not have active water connection. Patients accessed the health facilities without washing their hands, which increased the risk of infection for both patients and health facility staff. Water used by staff was accessed manually from community water points. The water was mainly used for drinking and cleaning of premises, with low usage for handwashing. Qualitative data from HC staff indicated water and hand washing facilities supplied were used by staff, patients and even community members to wash their hands. Out of the sick students who visited the health centers 69% considered them to be safe. On the other hand, 66% of community members considered health centers safe. The availability of water and hand washing facilities through the project were part of the reasons why the HCs were considered safe. Notably, despite washing of hand at the entrance, at the time of the evaluation, health practitioners in HCs were not wearing masks while attending to patients. Qualitative data indicated the supplied masks to HCs were not adequate and were mainly supplied by UNHCR and government.

The school reopening decision only partly considered individual schools meeting the criteria but mostly considered the spread of infection in a given area. In this regards, by the time the project supplied NFIs (1st Feb 2022) and trained hygiene club members (17th Dec, 2021), the schools had already been reopened (in 3rd May 2021). This indicates the project contributed more to prevention as opposed to supporting reopening. Additionally, the project strengthened prevention systems in the three schools and in turn may have prepared them for another COVID 19 wave or another closure should the cases in the area be alarming. Qualitative interview with the education cluster confirmed these schools were only supported by the project and not any other partner, which indicates the magnitude of the project's role in

strengthening COVID 19 prevention systems in these schools. Furthermore, the training, provision of WASH kits and enforcement from trained teachers and hygiene club members were considered as part of reason why 66% of students considered schools to be safe from COVID 19.

1.4 Satisfaction with the project

Satisfaction among students

Overall, the project was implemented to the satisfaction of slightly more than half of the students. Under the access to water component, 51% of the students were satisfied with handwashing stations while 41% were satisfied with tap stands. The levels of satisfaction were highest in Interior Elementary School and lowest in St. Andrew. A satisfaction level in Sobat was also below 50% for tap stands. This could be attributed to delayed installations, and by the time schools closed, Sobat and interior did not have water supported by the project. This is expected to improve once the schools are re-opened given the project had completed connections to the schools. Thus, Sobat and Interior have tap stands connected to Bam SWAT which will ensure continuous access to water.

Table 16: Students' satisfaction with handwashing stations and tap stands

	Hand washing stations	Tap stands
Not Satisfied at all	15%	13%
Not Satisfied	13%	25%
Average	21%	21%
Satisfied	34%	32%
Very Satisfied	17%	9%

In terms of training and COVID 19 awareness creation at the school levels, 52% were very satisfied with the trainings from teachers. Messages from other students and PTA members were also satisfactory to most students. However, students were not satisfied with soap and NFIs as they were provided closer to the schools' closure and thus they only used them for a short while.

Table 17: Students' satisfaction with COVID 19 prevention services and support

Satisfaction Rating with COVID 19 prevention services and support					
Response code	1= Not Satisfied at all	2= Not Satisfied	3= Average	4= satisfied	5= Very Satisfied
Trainings offered by your teachers	8%	5%	10%	25%	52%
Messages from other students	11%	21%	11%	33%	24%
Messages from teachers/ PTA/SMC	8%	14%	21%	35%	22%
Soap provided in school	15%	42%	14%	25%	3%
Face masks provided in school	20%	42%	19%	14%	5%
Average	12%	25%	15%	26%	21%

Community satisfaction with the project

Overall, 55% of community members were satisfied with the project. SWATs, tap stands and awareness sessions garnered the highest average ratings in the community. However, hand washing station were

lowly rated. This is mainly because they were not installed in public spaces but only in the three schools and two health centers, thus, a smaller proportion of community members had used them. Although satisfaction was high for tap stands, members of the Eastern Payam wanted more water points installed to cater for the growing population.

Table 18: Community satisfaction with the project's support

Community satisfaction with the project's support					
Response code	1= Not Satisfied at all	2= Not Satisfied	3= Average	4= satisfied	5= Very Satisfied
Awareness sessions	5%	10%	17%	35%	33%
Hand washing stations by WV	25%	24%	19%	22%	9%
Tap stands offered by WV	10%	14%	20%	34%	22%
SWAT installed by WV	11%	9%	15%	44%	21%
Average	**13%**	**14%**	**18%**	**34%**	**21%**

Satisfaction from HC and School staff

Qualitative interviews with HC staff indicate they were satisfied with the water points and hand washing facilities installed. This was mainly because prior to the project, the HCs did not have active water supply and hand washing facilities. Additionally, the handwashing stations were installed in areas where both staff and patients could access them easily.

On the other hand, teachers were also satisfied with trainings, hand washing stands and WASH kits supplied by the project. Qualitative data indicated teachers felt safer with students complying with COVID 19 protocols while in school. However, teachers had concerns of continued supply of PPEs.

"The designs (handwashing) are satisfactory. Then we also have children at least observing COVID 19 measures which is more secure given the size of classes and also our age as teachers." – KII, Teacher, Sobat.

4.3.3 3 Identification of actual and potential alignment of the project with the core responsibilities 4A Reinforce local systems & 5A Invest in local capacities under the Agenda for Humanity, with regard to the following questions (in line with OECD DAC criteria of sustainability and CHS).

3.1 Assessment of the level of participation of, and accountability to the crisis affected people, particularly children and women, in the project related decision making.

Qualitative interviews with community members indicated they were involved in decision making of the project. This included from supervision of the construction of the SWAT, selection and participation in WMC, use of PTA members and children to disseminate information. Given that women were the most community members involved in fetching of water for households, they were also involved in selecting members of the WMC. Thus, majority of WMC members were female community members. Additionally, the community through the government was involved in selecting the area to install Bam SWAT and provided land to the project[14]. Children were mainly involved in the project but not on decision making. On the other hand, PTA members were from across the four Payams as children from all the Payams attended the three schools.

[14] Land documents available

Notably, community members felt they should have been involved in the MoU to hand over SWATs to the government. This was mainly because some of them did not believe the government was in a position of handling the SWATs at the time of the evaluation.

3.3 Assessment on how effectively the project strengthened a sense of ownership, capacity and systems among key local actors, and the extent to which they can sustain the project achievements without further reliance on external support.

In the maintenance of SWATs, the project had WMCs which are capacity built on maintenance and operationalization of SWATs and were committed to continued service to the community, even without incentives. WMCs also had maintenance plans in place that can continue guiding their actions in management of SWATs. WMC members were also trusted by the community and selected from the community. On the other hand, the MOU signed with the government offered a path of continuity of SWAT operations, although there was much needed support in accessing chemicals, fuel as well as costs of operation. In this regard, the WASH cluster was willing to continue offering the needed support to the SWATs. The Bam SWAT was also set up using semi-permanent treatment and elevated steel tank which were more durable compared to the temporary SWATs.

Similarly to SWATs, the existence of capacity built for WMC members who were willing to support the project outcomes as well as the available work plans improve the likelihood of sustainability of water points and pipelines in the community. WMC members are able to identify and be notified of leakages by community members and work with operators or by themselves to fix them. Additionally, the WMCs engaged the community members in cleaning water points and jerry cans as part of the project. The engagement of the community through WMCs is a positive sign for sustainability. Sustainability of water points and tap stands was also hinged on the continued operation of SWATs which is likely as discussed above.

Tap stands and hand washing facilities in the health centers were also likely to continue after the project because at the HCs, they were more secure from vandalism compared to schools and the community level. The HCs were fenced and had hired guards. The Bam HC was also adjacent to the Bam SWAT, which would offer continued supply through gravity due to the availability of the EST as long as the SWAT was operational. As previously indicated, prior to water connection in the HCs, water for handwashing facilities was fetched manually. This indicates commitment to accessing water for handwashing, which is a positive indicator for continued operation of hand washing facilities.

Similarly to tap stands and handwashing facilities in the HCs, the sustainability of those installed in schools was hinged on continued operation of SWATs and pipelines set up by the project. At the school level, teachers and students were able to monitor the facilities during the day and on school days but the lack of fences and security personnel especially in St. Andrew and Sobat had a negative effect on sustainability. Additionally, despite the commitment of schools to hiring security guards, the availability of the budget was a major concern.

Overall, the continued practice of hygiene and COVID 19 preventive measures was affected by different factors. At the school level, continued practice was supported by majority of students being capacity built, existence of hygiene clubs which had disseminated the information to other students, trained teachers, availability of equipment and enforcement by teachers. Commitment of students to continued washing of hands was also demonstrated by their efforts in fetching water manually, storing in buckets and filling the hand washing facilities. However, the lack of guaranteed access to COVID 19 PPEs, poor fences, as well as the easing of measure by the government affected the prospect of continued practice. In regard to

some of these challenges, the education cluster was willing to continue supporting access to PPEs and WV had plans to support the fencing of St. Andrew PS. The education cluster cited they could look for an organization through donor funding to continue providing PPEs as projects were discussed at cluster meetings.

On the other hand, continued practice at the community level was likely to be affected by various factors despite increased access to water and sharing of the knowledge acquired within the community. Easing of COVID 19 measures and the communication from the government had negative effect on continued practice as community members believed COVID 19 was gone and infections had reduced. This led to most community members abandoning wearing of masks and maintaining of social distance. Lack of enforcement of practice at the household level also had a negative effect of the potential of continued practice.

3.4 Assessment if and how JPF's financing modalities facilitated or hindered WVJ's efforts at localization

In terms of localization, WV aimed to engage local resources and ensuring community participation in the project. The project engaged water operators from the community and proposed by the government. The project trained them on SWAT operations and at the time of the evaluation, they were in position of fixing the SWATs without external help. As the treatment tanks had rubber lining built inside the iron tank, in case it was damaged during installation, water operators could use local plastics (made from recycling plastic material) and patch the tank. Qualitative information from water operators indicated this was a challenge they had addressed at the Nile Place SWAT. Overall, the project funding was sufficient to build their capacity and also cater for their incentive during the project period. However, the water operators were not willing to continue working without incentives after the project ended. This indicated a challenge in handling recurrent costs after the end of a project. This should be streamlined by the government and other actors such as the WASH Cluster.

On the other hand, the project engaged the community through water management committees and through community supervision. Community members nominated WMC members who were trained through the project and developed a maintenance plan where they would aid in cleaning the water points and addressing leakages in the water supply system. The community through the government also identified and offered suitable land for the construction of the Bam SWAT. Community members supervised the installation of the SWAT.

The project also used existing systems such as the PTAs/SMCs and school children to disseminate information on COVID 19 prevention measures as opposed to engaging hired hygiene workers. PTA members were trusted by community members to disseminate information while children were trusted at the household level.

Overall, the funding facilitated localization efforts of WV by supporting local capacities through the project as discussed above. In terms of participation of community members, the funding facilitated training of teachers, WMC and PTA members. It also supported the incentives of PTA members when creating awareness in the community. The funding also supported the annual incentives and capacity building of water operators to be confident to fix SWATs even after the project has ended without external support.

5 Lessons learnt and recommendations

1. In terms of the technical design, the use nozzle fitted tap stands worked well in preventing water loss but the community, especially children had challenges in using them. This led to some tying the nozzles with clothing for continuous water flow. However, the WMCs were able to remove the restraints during surveillance and discourage community members from the behavior.
2. Community engagement can be encouraged including cleaning and taking care of water points as well as discouraging children from interfering with the nozzles. This increases their sense of responsibility for water supply facilities which also includes their willingness to work with WMCs to clean water facilities, supervise construction of SWAT and desire to be involved in SWAT handover decisions.
3. Despite the use of the hand washing facilities in schools for hand washing, hand washing in the morning caused queues at the entrance of schools, prompting some students to skip the queue and enter the school without handwashing. In this regard, water points and hand washing stations can be increased in schools to avoid long queues.
4. Overall, although the project design provided some of the most important components for protection and prevention of COVID 19 (water, awareness, training of prevention measures, handwashing facilities, PPEs in schools), practice faced numerous challenges. Similar projects in the future should consider conducting holistic situational analysis to identify gaps in COVID 19 prevention. This will ensure access to all required means to prevention, such as masks, soaps, etc. either directly by the project or in coordination with other actors.
5. The school based approach worked well especially in practicing in schools where teachers enforced compliance. The children were also able to disseminate the awareness in the community especially within their households where they were trusted. However, the level of practice at home was lower than in school given factors such as lack of enforcement and the government easing of restrictions which indicates a need for a critical mass to shift their behavior pattern if it is to be maintained. This may be achieved through an intervention targeting community leaders (just as teachers' role in school) to create a mechanism of enforcement within communities. The clear communication by the government on easing restrictions as discussed below would also aid in continued practice.
6. The government should also consider formulating clear messages to communities when the government lifts the restrictions. This would ensure that the communities clearly understand the ease of the measures does not mean they are risk free. It would also insist on ongoing presence of infection risks and a continuous need for protective measures, even when they are allowed to do things that were previously restricted.
7. In terms of gender mainstreaming, the majority of WMC members were female and were suitable given majority of activities on fetching water were undertaken by women. They worked well in addressing challenges such as conflicts at water points as well as being capacity built to fix and run the SWATs. This can be replicated in other projects. On the other hand, the participation of school girls in training was lower compared to boys and this may have had a negative effect on how the information was disseminated within schools. This may be depicted in St. Andrew where only one girl compared to 6 in interior and 5 in Sobat was directly trained by the project. Similarly, all trained teachers (11) in St. Andrew were male. Future projects should consider the roles, aspirations, wishes and needs of women, men, girls and boys as they both have equally valued contributions in projects.
8. The projects efforts in supporting localization especially in capacity building community members in WMCs, PTA/SMCs, teachers, children and water operators can be replicated in other projects.

Some of the effective capacity building aspects included; SWAT operations and maintenance and COVID 19 prevention measures. However, community involvement especially on the SWAT hand over process was not well addressed as community members were not allowed to express their concerns and share their inputs in the plan. Future projects should consider inviting community members and other relevant actors to chart way forward on such key issues. This can be achieved through multi-stakeholder platforms and meetings.

9. With regard to other key issues facing localization such as incentives, future projects should consider including long term plans of income for engaged members. This can be through supporting a reward system to the communal services offered. A community payment system can be explored to support the services of water operators as WMCs were willing to continue working without incentives. Payment should be as per the level of efforts and technical skills offered. Thus, should WMCs be tasked with the daily running SWATs, they should also be compensated similarly to water operators. Discussion on how trained water operators and WMCs can use the skills gained as a means of livelihood is encouraged. This would ensure their livelihoods are also in line with their community services they provide. WMCs could be supported with branded shirts and operational tools such as gumboots. This would enhance their recognition in the community and also aid in undertaking their work.
10. Closure of borders and other restrictions as well the logistics context of Malakal was challenging in terms of procurement, which led to delays in implementation. We also recommend JPF to consider long term projects given the challenges in Malakal. Future projects are also urged to consider the transport context in their plans to avoid delays in implementation.

ANNEX 2: Data collection Tools


Quantitative Questionnaire_Commu


Quantitative Questionnaire_Studen


KII with water operators.docx


KII With teachers PTA SMC.docx


KII Staff and local partners discussion g


KII Health Centre Staff revised.docx


KII government institutions community


FGD Guide_ Students.docx


FGD Guide_ Water Management Commit


FGD Guide Community members.