



TAWISA 3 FINAL REPORT

Service au Sahel

July 2020



Table of Contents

xecutive Summary	3
verview	4
roject Results per Objective 1:	5
Output 1.1 & 1.2: Water assessment reports of each of the 100+ villages, Identification & all water points including their current status & repair needs	•
Output 1.3: Presentation & distribution of this information to all stakeholders to promote	action 6
roject Results per Objective 2:	7
Output 2.1: Water access is restored through repair/replacement of non-functioning water	er points . 7
Output 2.2: Water committees are set up and trained to sustainably manage the water po	oints 11
Output 2.3: Cost-recovery mechanisms in place such that communities are empowered to their own water points.	
Additional 1: Water committee follow-up for Tawisa 2 Villages	14
Additional 2: COVID-19 Response	16



Executive Summary

Tawisa 3 has completed mapping and survey for the Chokoyan Canton of the Ouaddai State of Eastern Chad. This included mapping and surveying over 184 villages and their improved and unimproved water sources. Printed maps are being shared with all stakeholders in the region and detailed data has been provided to the government to use in its geospatial database.

Additionally, a pump repair program was initiated in three villages within the Chokoyan Canton. These villages had existing broken pumps. Service au Sahel ran a two-day water committee training, introducing cost replacement schedules, record keeping, management of a cash box and savings goals for maintenance and repair, in each of these villages. After the training the pump was repaired. Monitoring visits have been conducted each month post the repair, tracking and working with the village to implement the training received. These monitoring visits are continuing into the next Tawisa project until the full year of monitoring is completed.

Additionally, water committees and villages who received new wells during the previous Tawisa 2 project were monitored on a quarterly basis, encouraging them to save for future repairs that will be needed for their new well. The Tawisa 3 project finished within budget, having spent 92% of total funds.



Overview

In July of 2019, Service au Sahel (SAS) started Tawisa 3 and has since worked towards assessing and addressing the critical water needs of communities in the Chokoyan (formally Ouadi-Hamra) canton of Eastern Chad through survey, mapping and a pump repair program.

This project included two main objectives:

- 1- Survey of water demands & resources;
- 2- Improved livelihoods through sustainable access to clean water.

The first objective built upon previous project work in the Hadjer Hadid Canton (formally Barde Canton) in 2017. This project created a geodatabase of all village locations and their water access points. It was the first comprehensive database of pumps and hand dug wells for the region. In Tawisa 3, this database was expanded into the neighboring Chokoyan canton, adding 184 villages and their water access points to the database. The database was created through onsite village visits and survey. Geolocated village and water point data was incorporated into the existing geodatabase. This information was checked and printed maps are being distributed to stakeholders in the region.

The second objective proposed a pump repair program for 8 to 10 pumps in the Chokoyan Canton. This program was initiated, however, fewer villages than anticipated chose to participate in the program. Of the 19 villages in Chokoyan that had an existing broken pump, only 3 of them chose to participate in the program. Those participating received water committee training and resources and their pump was repaired. The water committees in these three villages have been monitored monthly since their training. These committees will continue to be monitored and coached for a full year.

In regards to the project finances, 92% of the project finances were spent. A complete financial summary of the project is included at the end of this report along with a recommendation to roll remaining funds into the next Tawisa water development project managed by SAS. This coming project will continue the pump repair program, offering the program to any village that wishes to participate as well as finishing the year of monitoring for those villages who have already started.



Project Results per Objective 1: Survey of water demands & resources.

Output 1.1 & 1.2: Water assessment reports of each of the 100+ villages, Identification & analysis of all water points including their current status & repair needs

The goal of this objective was to survey and map villages and water access points, both improved and unimproved, for the entirety of Chokoyan Canton. This data would then be shared with government, NGOs and other stakeholders in the region to help inform and shape future work and collaboration.

The project started as SAS staff met with regional leaders and government, receiving permission to be working in the region and offers of help as needed.

Data collection started slowly due to the rainy season in July through October, making roads muddy and often unpassable. However, through the second and third quarter of the project, all 184 villages were surveyed and mapped. Due to the rural and often nomadic characteristics of the region, villages were only surveyed if they contained at least 25 households, had a village leader and a masiik¹.

Project staff traveled to each village, recording their geolocation with a hand-held GPS unit. They met with each village leader and/or other leading men in the community. Surveys included village population, leadership contact information, history of previous NGO work, previous committees in the village, and history of water access. Improved water points (hand/foot pump, water tower etc.) were GPS located and information about previous water committees, installation, when the pump broke etc. were collected. Village leaders were asked to show any unimproved water sources that the village drank from. These were also geolocated.



Figure 1 – Staff member collecting a GPS location at a hand dug well.

Survey included 184 villages, comprising of 11,273

households. 21 improved water sources were mapped as well as 31 unimproved open wells, or hand scoop type wells were mapped. See the cover photo as well as Figure 1 for examples of typical unimproved water sources.

¹ A masiik is a type of small Quranic school usually run under a tree or shade structure in a public space. Since the region is almost 100% Muslim, the presence of a masiik is a strong indicator of permanence for the village. This space also serves as a communal meeting point for a village that does not have a mosque.



Difficulties and Lesson's learned:

In August 2019, the national government declared a State of Emergency in the Ouaddai region due to tribal fighting between Arab and Ouaddai tribes in the southern part of Chokoyan canton. This was initially for 20 days and then extended through to January 2020. Firearms were collected from villages and nomadic communities in an effort to stop further violence. A temporary ban on motorcycles as well as restricted travel on roads made data collection difficult. This delayed the project, pushing the majority of data collection to the end of the year and January. Security was monitored constantly and data collection was only done in areas that were considered safe for travel. The entirety of Chokoyan was mapped by the end of January 2020.

Output 1.3: Presentation & distribution of this information to all stakeholders to promote action

2

20

Raw data was processed, checked and put into the existing geodatabase. Data for Chokoyan was analyzed and includes the following:

Data Collection Summary*

Population Data

# Villages	170
# Households	11,273
# Quranic Schools	13 (1,133 Students)
Approximate Population	91,300
Improved Water Source Data	
# Existing Pumps	27
Working Pumps**	5
Other Data	
Approximate area of canton	2,645 km ²

^{*} All data per June 2020

Hospitals/Clinics

Villages w/ previous NGO engagement

The database was mapped using QGIS. After a draft map was created, it was brought to regional leaders for checking. Regional government leaders were impressed to see villages and their locations. Local leaders who had worked their jobs for many years, knew names and locations of all villages and landmarks in the canton, but had never seen them on a map. As leaders listed locations and names of villages for which they are responsible, they were encouraged and excited to see the same villages in their correct location on the map. Government leaders as well as other NGOs who work in the region were given copies of the final map. A copy of



Figure 2 – Reviewing the draft map with regional leaders

^{**}Includes 3 pumps repaired in this project



the database of the villages and pump locations was given to the ResEau project, a collaborative effort between the Government of Chad and the Swiss Agency for Development and Cooperation.

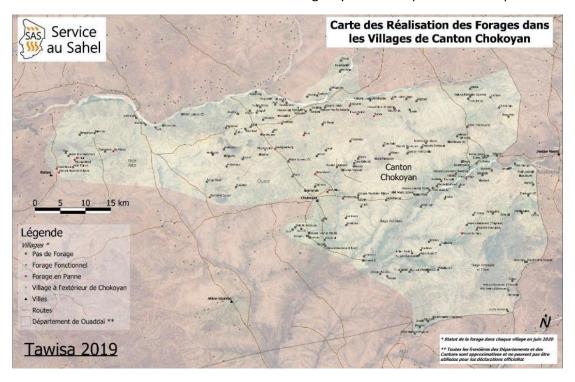


Figure 3 – Completed map of Chokoyan Canton.

Project Results per Objective 2:

Improved livelihoods through sustainable access to clean water

Output 2.1: Water access is restored through repair/replacement of non-functioning water points

During data collection, villages found with existing broken pumps were invited to participate in a program that would include repair of their broken pump, water committee training, and a year of monitoring. Those participating were required to contribute €190 (125,000 XAF) if a large village and €115 (75,000 XAF) if a smaller village. If the village successfully completes the yearlong monitoring period by collecting cost recovery funds from its community, recording all income, and recording and receipting all expenditures, then this initial contribution is returned to the community.

Wanting to give each village the best opportunity to succeed, SAS chose to not just repair the broken pumps in participating villages, but to replace a large number of the inner parts of the pump that more commonly break, even if the part was not yet broken. These, old or broken parts were left with the village so that they would know and have proof of what parts had been changed if a problem arose in the future. This was done in hopes that the village will have a longer period for savings to build up before a large repair is needed.



SAS identified 19 communities in Chokoyan, each with 1 to 2 existing broken pumps. Each of these communities were invited to participate in the pump repair program. Community leaders were told about the program and invited by staff when the survey was completed. Each community was followed up with in the following weeks and months post their initial visit in order to strengthen the relationship, answer questions and to gauge interest in the program. Of these communities, only 3 chose to participate in the program: Noungouroung, Kouchaguine, and Hille Tahir.

Noungouroung

Noungouroung, was the first village to gather funds to participate in the program. The village's pump had been installed in 2005. The leaders said that the pump had broken before, and that the village had fixed the pump each time. Learning about our program, the village leaders decided this would improve their ability to maintain their pump and decided to do our program rather than a simple fix as they had done previously.

Kouchaquine

Kouchaguine did not express much interest in the program during initial visits. However, the village later contacted SAS employees, having gathered their funds and wishing to participate.

Kouchaguine has two pumps, one that belongs to their regional clinic. The other, which SAS repaired, is used by the village. The pump had multiple broken parts as it had been left broken for 3 years prior to this fix.



Figure 4 – Staff fixing the pump at Kouchaguine Village



Figure 5 – Replacing the pump at Hille Tahir Village

Hille Tahir

Hille Tahir was one of the last villages surveyed in Chokoyan Canton by SAS staff. The community had a broken India (hand-pump). Because parts for India pumps are more difficult to obtain in this region and because the repairs require more specialized tools than the Vergnet foot-pumps, the village decided with the SAS staff to replace the pump with a Vergnet.



Problem Analysis – Lack of interest in pump repair program

The pump repair program is designed to address sustainability and water access issues and develop local skills and relationships. If the village completes the program well, it costs the village nothing. Those who take the time to understand the program are often impressed with it and feel it is a valuable program. Yet, finding villages wanting to participate in the program has been very difficult. The following are reasons villages have stated for not participating:

- 1. The financial buy-in was too high/they lacked the resources at the time
- 2. The lack of good leadership and divisions within the village
- 3. The community did not want the well fixed

Additional reasons staff felt contributed to the lack of interest include:

- 4. General lack of trust in organizations/NGOs to follow through with the proposed projects
- 5. Lack of understanding of what is being offered
- 6. Not wanting or able to collect money each month from villagers when "free" sources of (dirty) water were available
- 7. Fixing the well was not a felt priority compared to other pressing priorities

<u>Reason 1:</u> This was a commonly stated reason. The community contribution was purposely set higher as the pump repair program was designed to work only with villages that would be likely to maintain their pump post the end of the project. Community buy-in illustrates initiative and a prioritization of fixing the pump. The program ultimately requires full village participation. A larger buy-in amount makes it harder for one or a couple individuals to raise the money on their own.

SAS staff often heard of many other things the villages were either forced or chose to raise money for. The majority of these things were significantly higher than the amount asked for by this project. Though these other things caused financial strain on the villages that cannot be dismissed, it also illustrated that this amount of money could be raised.

Due to wide spread extortion during the State of Emergency, target communities were drained of resources to which they normally would have access. This made the buy-in harder for communities that might normally have participated.

<u>Reason 2:</u> The pump repair program was designed to work only with villages would be the most likely to have a water committee succeed with long term savings. SAS has found that a key component of this is having a village leader(s) who can unite and direct the village, in particular with regards to finances. Villages who lacked this struggled to gather the buy-in contribution.

<u>Reason 3:</u> As detailed later (page 13 of this report), SAS staff heard that others had come in the name of NGOs, gathered money and then not delivered on the promises they made. NGOs who stay long term and who don't change their programing/funding are rare. Village leaders are right to be skeptical.



Problem Analysis – Continued

<u>Reason 4:</u> Wells are sometimes placed in locations that are not ideal for the village. A well located far away is harder to guard and insure it is not vandalized or broken. Local politics or tribal tensions surrounding the well can also be good reasons to allow it to stay broken.

<u>Reason 5:</u> SAS staff often had to explain and re-explain how the program would work, sometimes to the same leaders. Supervisors as well as field staff had to work hard to communicate that the program was more than just a pump repair. Rather it included a year-long relationship that built towards the village's future success. The monthly follow-up as well as the eventual conditional return of the contribution money was not easily understood even by participating villages until it was put into practice.

<u>Reasons 6 & 7:</u> Water has historically always been a free resource, making it hard to accept the need to pay for it. Paying a small fee for maintenance of a well is hard to prioritize when there is very little money for many of the other necessities of life. Most do desire to drink clean water, but precious financial resources will be directed elsewhere. If the village is located close to a riverbed or other type of free water source, then the easy water access makes it makes it difficult to justify allocating funds to the clean water source.

A visit with a regional leader gave further insight into this issue. The leader asked if we could consider building reinforced open wells (see cover picture) instead of boreholes with pumps. Open wells have very dirty water, but are quick, cheap and easy forms of water access. When asked why open wells would be preferred to a pump (with clean water), he replied: a) open wells take no/very little money to maintain. Pumps break and take consistent maintenance and money. NGOs expect villagers to gather money to fix pumps b) It takes more time to fill your water jars with a foot or hand pump. Several people can gather water at the same time from an open well. c) many people do not know the value of clean water. The leader's comments illustrated vividly that for many people cheap water access is the felt need rather than clean water access.

<u>Summary:</u> Every community is unique and has its own reasons for participating or not participating. However, SAS will be interested to see if communities who originally expressed interest in the program but did not follow through will later want to participate in the program once SAS is more established in the region. This coming year, SAS will be finishing the monitoring of the existing 3 communities as well as drilling new wells in the region, continuing our presence in the region. As news travels about the work SAS is doing, and that previous promises were kept by the organization, it is possible that other communities will choose to participate. If there is peace in the region and there are good rains for crops, then villages will have more money available. SAS is interested to see if changes to these factors will enable more villages in Chokoyan to participate in this program, or if other factors keep villages from participating.

The pump repair program has illustrated itself as beneficial for those villages who do participate. However, it is expected that those villages will be less common. SAS hopes to learn from these possible reasons as the organization designs future projects that address clean water access through the region.



Output 2.2: Water committees are set up and trained to sustainably manage the water points

Upon receipt of the village buy-in, SAS worked with each village to create a water committee. Each committee was required to have at least 5 members and encouraged to include at least one or more women. Once committee members were chosen by the community, a two-day long training was completed. Trainings were done on site and in the local tribal languages, enabling attendance by the village leader and others from the community and increased comprehension for all attendees.

Water committee training covered a variety of topics related to the collection and management of community cash flows, record keeping, and receipting of expenditures. The training included discussion and questions on the role of each committee member as well as cultural stories and role play to illustrate common scenarios. Committee members seemed to appreciate tools that illustrated honesty and transparency in their money management. Each water committee was given a lockable cash box, receipt books, and notebooks to keep records within. Each water committee was encouraged to engage and discuss the fee schedule with the rest of the community within the following month.

Table: 1 : Village trainings and Pump Repairs

Villago	Training	# Committee	#	Repair	
Village	Completed	Members	Women	Initial Fix	2nd fix
Noungouroung	29-Nov-19	9	2	29-Nov-19	6-Jan-20
Kouchaguine	6-Mar-20	10	5	6-Mar-20	N/A
Hille Tahir	20-Apr-20	10	1	23-Apr-20	2-Jun-20

Water committee members for each village committee are listed below:

Table: 2: Noungouroung Water Committee Members

No	Name Water Committee Ro	
1	Khazin Yousuf Ousman	President
2	Mahamat Yousuf Dodio	Vice President
3	Ousman Radouane Ahma	Secretary
4	Bichara Adam Doude	Treasurer
5	Abdasalam Adam Abdelkerim	Guard
6	Abdoulaye Abdadine Ousman	Member
7	Assil Ibrahim Ousman	Member
8	Gafile Andjarak	Member
8	Noura Douban	Member



Table: 3: Kouchaguine Water Committee Members

No	Name Water Committee Ro	
1	Mahamat Hussein Nadif	President
2	Halime Issak Hassan	Vice President
3	Habib Ousman Adam	Secretary
4	Adam Hissen Adam	Add. Secretary
5	Hawai Ousman Annur	Treasurer
6	Mariyama Mahamat Adam	Add. Treasurer
7	Mariyam Oumar Adam	Guard
8	Khadija Adam Hussein	Add. Guard
9	Abdel Azim Ali Adam	Member
10	Isakh Abdoulaye Haan	Member

Table: 4: Hille Tahir Water Committee Members

No	Name Water Committee	
1	Abakar Mahamad	President
2	Mahamad Saleh Abdul Malik	Vice President
3	Rizik Ousman	Secretary
4	Mariyam Boukari	Treasurer
5	Yakoub Suleyman	Guard
6	Abdoulaye Ahmat	Member
7	Tahir Saleh	Member
8	Dahab Bournus	Member
9	Anwar Nasseur	Member
10	Mahamat Tahir	Member

Output 2.3: Cost-recovery mechanisms in place such that communities are empowered to maintain their own water points.

Monitoring started one month post the repair of the pump. The initial visit was generally used to ensure that the pump was still functional, and to remind and encourage the committee to register each household if they had not yet done so. Starting with the second visit, staff monitored household registration and cash intake and expenditures.

Table: 5: Water Committee Monitoring

\/illa=a	Water Committee Monitoring				
Village	1st Month	2nd Month	3rd Month	4th Month	
Noungouroung	20-Feb-20	26-Mar-20	11-May-20	16-Jun-20	
Kouchaguine	6-Apr-20	12-May-20	4-Jun-20	N/A	
Hille Tahir	2-Jun-20	N/A	N/A	N/A	



Staff found that full household registration often isn't completed till the 3rd or 4th visit. The village is instructed to register each household and then communally decide which houses should be exempt due to poverty.

It also takes the water committee several months to gather the first few months of payments and to get into the habit of collecting funds regularly. This learning process is encouraged and helped by the SAS staff through their monthly visits. Summarized below is the recorded progress of all three villages. Monthly monitoring is currently continuing till the full year is completed.

Table: 6: Water Committee Progress

Follow-up Visits	Houses Registered	Paying Households	Collected Fees (XAF)	Collected Fees (€US)
Noungourou	ng @ 250 XAF	/household/mo	onth	
20-Feb-20	59	n/a	2,000	€3
26-Mar-20	95	n/a	8,500	€ 13
11-May-20	133	125	28,000	€ 43
16-Jun-20	133	125	38,500	€ 59
Kouchaguine	Kouchaguine @ 200 XAF/household/month			
6-Apr-20	155	n/a	7,100	€ 11
12-May-20	299	259	31,800	€ 49
4-Jun-20	299	259	80,150	€ 122

While doing survey, SAS staff heard many stories where NGOs had come, promised wells or other development, extracted money from the village and then left- never to return or fulfill their promises. When village leaders would go to search for these NGOs, they would find that they had been fake, or that the NGO had stopped working in the region, without notifying or returning the village's contribution money. This has caused many villages to rightfully be wary of those coming in and to not expect promises to be fulfilled.

The Noungouroung water committee was taken aback when SAS staff arrived for their first follow-up visit a month after the repair. They were surprised, remarking that though the distance was really far (3 hours by car) and it was really hot, SAS had still come just to check on their water committee. They told staff that they didn't expect SAS to do that even though this is what had been promised.



Additional 1: Water committee follow-up for Tawisa 2 Villages

In the previous project from 2018-2019, the Tawisa team (formally with International Aid Services (IAS)) drilled new wells in 4 communities in the Hadjer Hadid Canton. The team also trained a water committee in each of these villages. Though not required to participate, each of these villages expressed interest in continued follow-up over the next year to help them with their new water committees. When SAS took over the Tawisa Projects this year, it was decided to continue quarterly follow-up with these villages until a year post their well opening. Villages were contacted and/or visited as follows:

Table 8: Tawisa 2 Water Committee Monitoring

Village	Well opening (Tawisa 2)	1st Follow-up	2nd Follow-up	3rd Follow-up
Konga	11-Feb-19	3-Aug-19	14-Nov-19	27-Feb-20
Labide	4-Mar-19	3-Aug-19	14-Nov-19	27-Feb-20
Boussei	8-Apr-19	2-Sep-19	3-Oct-19	21-Feb-20
Goundo	16-Apr-19	20-Sep-19	N/A	5-Feb-20*

^{*}Met with Goundo leaders in the SAS office

Konga Kabir:

Konga Kabir has steadily continued to collect funds for their well's preservation, having collected 73,500 XAF (€112) by the final visit. The village combined both cash collections as well as "in-kind" payments in either millet or peanuts. Keeping receipts was difficult for the village at first, but they improved by the second visit. Along with many of the men from the region, the majority of the water committee members had traveled around the time of the third



Figure 6 – Staff reviewing the ledger and cash box at Konga Kabir
Village

visit. These members did not appoint others to take over their duties. Remaining members of the community were encouraged to appoint substitutes for these roles until the original men returned.

Labide:

Labide struggled over the first rainy season to collect funds, as the majority of the village left for the fields. However, they were able to recover some of those funds in the following months, gathering 74,000 XAF (€113) by the final visit. The Labide committee also struggled with receipting for expenditures and those who traveled also failed to appoint replacements. However, when the pump broke, the committee was quick to fix the well, using the resources they had gathered.

Boussei:

After the well opened, the communities decided to gather funds at the well, per filled water container, instead of collecting per household as suggested in the training. This resulted in most households not paying for the water as water was collected on debt rather than upfront payment. The pump broke



several months after its initial installation and the community had minimal collected funds to repair it. The SAS team met with them multiple times while the pump was broken, helping to retrain and encourage the water committee to gather funds and repair the pump. The community repaired the pump in the beginning of 2020. However, after it broke again, it became clear that there could be corrosive material in the borehole, causing the pump parts to wear out quickly. SAS is continuing to work with this village to find solutions.



Figure 7 – Staff waiting to meet with those from the Goundo Water confirmation from the secretary that they were committee

Goundu:

SAS meet with the secretary of the water committee in Goundo in the first quarter of Tawisa 3. The village had already collected 47,500 XAF (€73). In the second quarter, the SAS team repeatedly tried to contact and arrange for a meeting with the water committee. However, both members of the water committee as well as the village leaders had traveled. SAS received verbal

collecting funds. In February, the village

leaders visited the SAS office and discussed options to improve their well from the installed foot-pump to an electric pump.



Additional 2: COVID-19 Response

COVID-19 Context in Eastern Chad:

As COVID-19 started to spread into eastern Chad, Service au Sahel (SAS) noted the lack of protective gear that staff in hospitals and clinics had in the Hadjer Hadid and Chokoyan Cantons of the Ouaddai region. Hospitals, run by the International Rescue Committee (IRC) in the 5 refugee camps in the region had been provided with disposable masks, but these were worn for long periods of time without being changed and were in limited supply. Though the refugee camps do have non-government organizations (NGO) that work within them, very few NGOs work amongst the equally impoverished villages in the region. Government run village clinics lacked resources and information about the pandemic.

In response to this situation, SAS directed resources to sewing 800 cloth masks for distribution within the region. Additionally, it created informational videos and complied other resources in the local languages to help increase awareness and understanding of the disease. These resources were put on Secure Digital (SD) cards and printed for distribution.

Materials Distributed:



SAS decide to create masks that could be easily recreated by locals for a price that locals could also afford. Thus, SAS sourced local fabric known as "congo" as it is durable, cotton, and widely available. Elastic for the ear holds was purchased from the local market. Two-ply masks were sewn per a pattern on the United States Centers for Disease Control (CDC) website². A local tailor sewed all 800 masks over a 2-week period. Masks were distributed as they were completed.

SAS desired to get information about the disease to as many people in the villages and the camps as possible, while noting the difficulties of travel and large gatherings. Thus, the team decided to create resources in local languages, easily spread by smartphones. SAS created videos in Masalit about COVID-19, how it spreads, prevention measures, and how to care for cloth face masks. This video was also translated into Ouaddai and Arabic. The team also gathered similar videos and paper handouts in Arabic, Masalit and French created by

SIL (Summer Institute of Linguistics) and Moskohanadii.org.

Figure 8 – A local tailor sews a cloth mask

These resources were placed on mobile phone SD cards. All recipients of these SD cards were encouraged to share these videos via bluetooth or Xender to other mobile phones.

² https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html



Distribution Locations

-500 cloth masks were given to the IRC to use and distribute to their health care workers in the hospitals in the region's 5 refugee camps. These hospitals see both refugee and local patients and are where

many will go when they seek medical care from COVID-19, putting these doctors at the high risk. SAS also provided an SD card to IRC with informational videos for the hospital staff and others.

-150 cloth masks were distributed to the 7 village clinics within the region. These clinics are small, some with less than 10 staff. SAS staff visited 6 of these facilities on-site and met personally with the directors of all 7 clinics. Each clinic was given 20-30 masks and an SD card. Multiple copies of informational posters with pictures and information in local languages about basic prevention measures were also given to hang up around each clinic.



Figure 9 – Doctors at the Treguine Refugee Hospital wearing masks made by SAS during a hospital visit

Village clinic staff were very appreciative of the masks and information. Having received little to no outside additional support, the measures were appreciated both for the practical help as well as the encouragement.



Figure 10 – SAS staff meeting with the doctor at the clinic in Arkoum Village

-Local and refugee populations purchase medicine and other medical supplies from a handful of local pharmacies. Thus, it was decided that these pharmacies would be the best location to introduce the masks into the local market. Each pharmacy owner was offered 20 masks. These masks were to be sold at 200 XAF /mask (€0.30). Pharmacy owners had to purchase the masks for half of this price (100 XAF/€0.15). Three pharmacies have purchased masks and are currently selling them. These pharmacy owners were provided an SD card with the videos and encouraged to give the videos to anyone who wished to purchase a mask.

-All remaining cloth masks have been distributed to SAS staff. Staff are encouraged to wear them whenever they are outside their homes.