Life in tents in Emir Palace IDP camp, Anka, Zamfara, Nigeria

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SWOT FIELD IMPLEMENTATION REPORT

Anka IDP Camp, Zamfara State, Nigeria
Médecins Sans Frontières (OCA)

JUNE 2021

MEDECINS SANS FRONTIERES

Safe Water Optimization Tool

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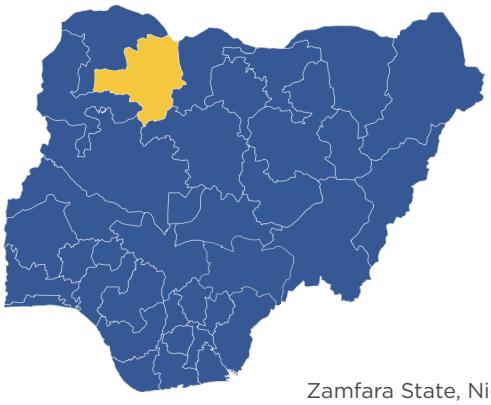

Zamfara State, Nigeria

BACKGROUND

Conflict between farmers and herders in Nigeria's 'Middle Belt' states has been increasing since 2011, fuelled by declining access to water resource and pasture land in the region. In 2018 an escalation in violence led to the displacement of at least 100,000 people who fled to relative safety in the towns of Anka, Shinkafi and Zurmi in Zamfara state in Northwest Nigeria.

MSF have been working in the Town of Anka since 2010, running a hospital for children and providing basic WASH and shelter services for IDPs.

THE SITE

The 'New Emir's Palace' IDP camp in Anka Town houses over 3,500 people who have fled conflict, mainly in other parts of Zamfara State.

Families share temporary shelters constructed from wood and plastic sheeting. Water is delivered from a borehole using a solar pump to five tapstands across the site. A dosatron is used to chlorinate the drinking water supply. An average of 5-10 litres of drinking water per person is available per day, supplemented by access to handpumps.

New Emir's Palace IDP Camp

490 µS/cm

Mean conductivity

28.6 °C

Mean water temperature

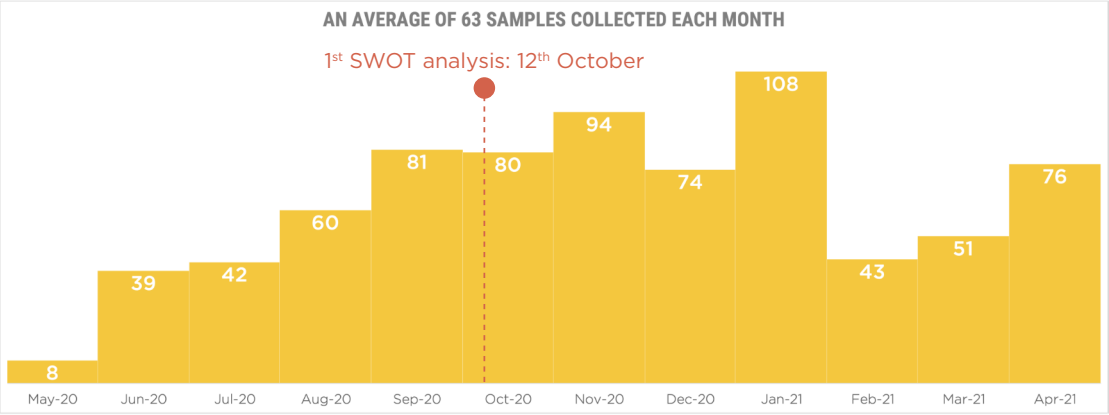

Figure 1: Number of paired samples collected per month

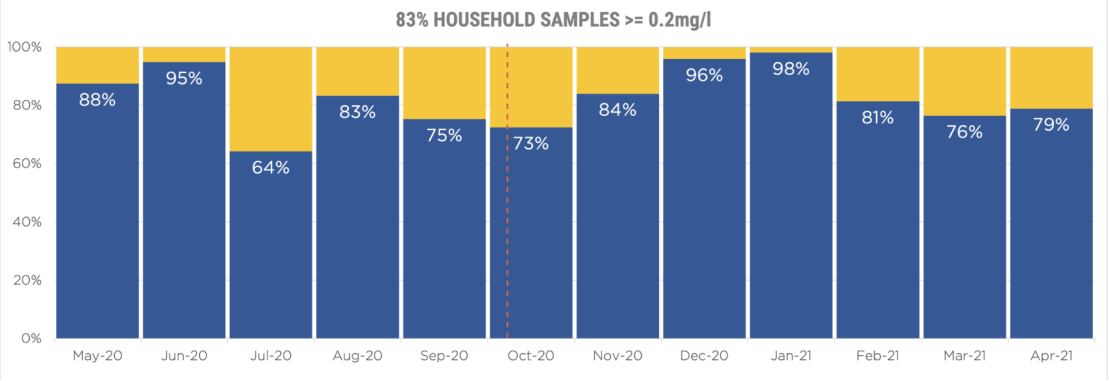

Figure 2: Percentage of household samples with a protective level of FRC (at least 0.2mg/l)

DATA COLLECTION

Data collection started in May 2020 and is ongoing as of June 2021. To date a total of 756 paired samples have been collected, an average of 63 per month. The 100th sample was recorded on day 78 and the first analysis was conducted in October 2020.

MSF used a single enumerator to collect the paired samples as part of their ongoing water quality monitoring. FRC measurements were made using a pooltester and results recorded by hand before uploading to the webtool.

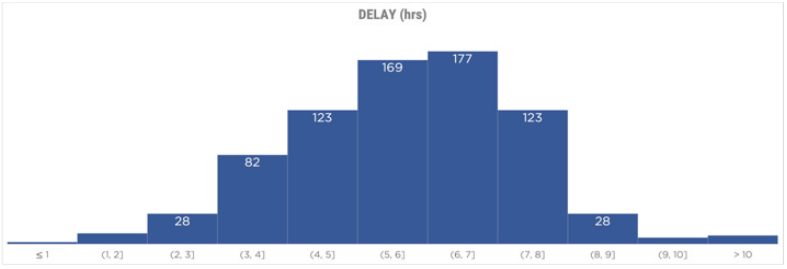

Figure 3: Delay between tapstand and household samples

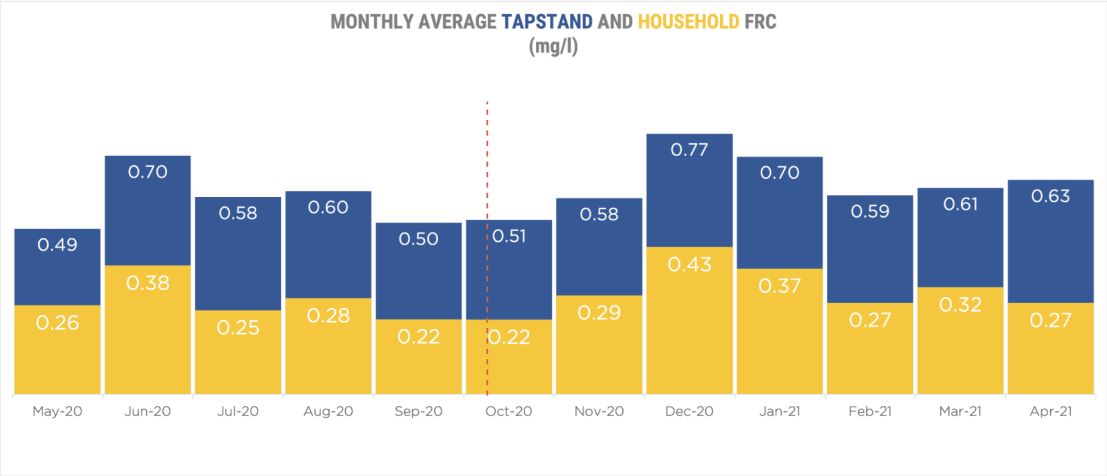

Figure 4: Average FRC results at tapstand and household, by month

RESULTS:

For a 9-hour duration of protection, the SWOT generated a tapstand FRC recommendation of 0.87 mg/L.

Figure 5 depicts a retrospective empirical analysis of how the SWOT recommendation compares to the status quo Sphere FRC target (i.e., 0.2 – 0.5 mg/L) with respect to ensuring household water safety (i.e., FRC > 0.2 mg/L) in data where household follow-up occurred between 9 +/- 3 hours post-distribution (n=344, average post-distribution time: 7.0 hours).

The SWOT FRC recommendation outperformed the status quo Sphere FRC target recommendation and improved the household water safety rate from 62% to 100% at 9 +/- 3 hours follow-up.

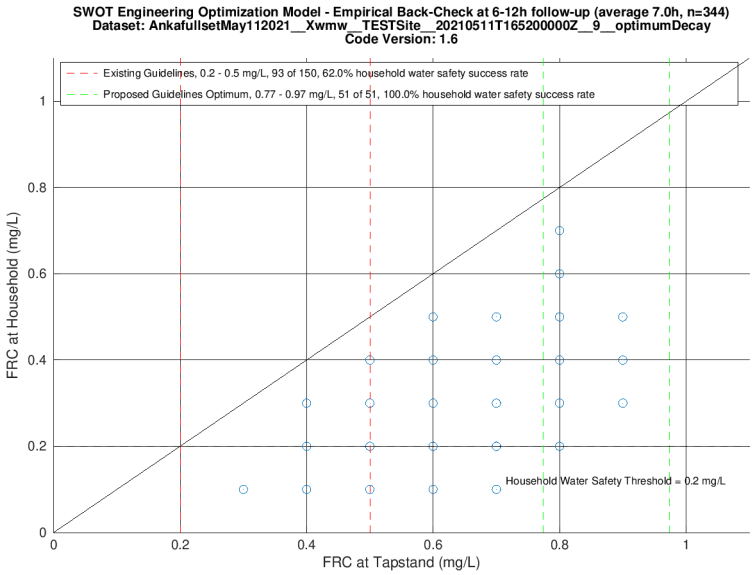

Figure 5: Empirical back-check of the SWOT results

LESSONS:

Field user set the desired follow-up time to 6 hours. Unclear what water supply situation this represents as overnight storage is at least 9 hours. In future, we may want to restrict time to above 9 hours. Should also follow-up with and clarify to field user on how to select the typical maximum typical duration of household storage/use.

USER FEEDBACK:

MSF provided extensive feedback based on their experience using the SWOT in Nigeria and this has been instrumental in identifying updates and improvement to the tool and supporting materials.

NEXT STEPS:

MSF will hand over the Anka project to Solidarités International as of May-June 2021. We are in contact with Solidarités International and they have committed to continue using the SWOT at Anka.