

Coping with water scarcity: Solidarités International's intervention in Pauktaw camps in 2023

LETTER #1- MAY 2023

This document presents the situation of the population in Pauktaw Internally Displaced People (IDP) camps and SOLIDARITÉS INTERNATIONAL's intervention to ensure continuous access to water during the water scarcity period.

SI started operating in Rakhine State during the emergency phase following cyclone Giri in 2010. It then responded to the humanitarian crisis resulting from the two waves of inter-communal violence in 2012. Since February 2013, SI has been working in Pauktaw IDP camps (ANYC, NC1, NC2, KNP) and village (ANYV) hosting Rohingyas, providing Water, Sanitation and Hygiene (WASH) services.

In the camps, people are exposed to harsh climate and very poor land with limited access to water, which greatly reduces their access to livelihoods and prevents them from meeting their basic needs.

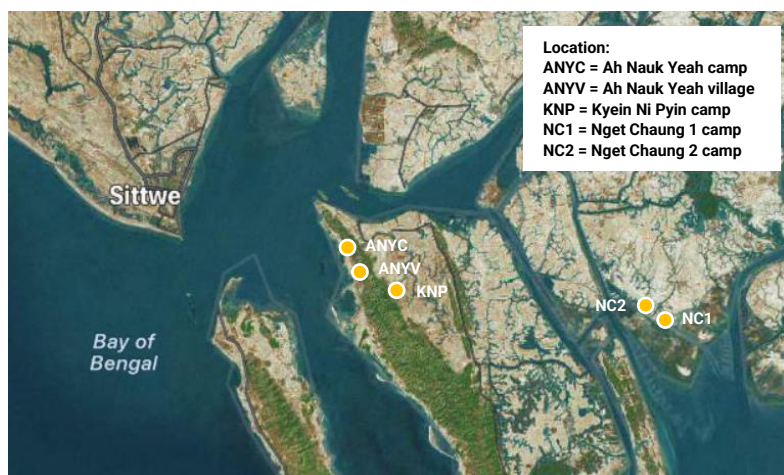


Photo 1 – Map of Pauktaw camps in Rakhine state

Due to geographical, hydrogeological, and climatic parameters, **25,812 Rohingya displaced in Pauktaw township suffer from annual potable water scarcity**. The water shortage occurs during the dry season from mid-April to early rainy season in June. They are located in low coastal plains on islets surrounded by brackish and salt water, and thus highly exposed to floods and cyclones. In addition, its hydrogeological characteristics led to groundwater depletion and saltwater intrusion in several areas. During the dry season, potable water is also not available. Although climate change could increase rainfall, it will become less predictable.

The main areas' water source is rainwater collected in ponds, with an average rainfall of 4.5 metres per year. **The seepage and evaporation lead to the loss of two-thirds of the water collected**, hampering the ability to uphold basic humanitarian standards (15 litres per day and per person, as per Sphere Standards). The combination of demographic growth, influx of Rohingyas, and limited land availability suitable for pond construction in camps, results in the ponds drying up about 3 months a year. **Improving rainwater harvesting and storage remains the most practical solution for increasing and optimizing the amount of water available after the monsoon.**

Every year, the lack of water puts more than 25,000 individuals at risk of increased public health issues

As the camps are located on islets, it is not possible to transport water by truck. Thus, boating, or where possible piping, is used to deliver water during times of water scarcity. Moreover, the water supply is limited, which impacts personal hygiene, including menstrual hygiene and public health, and **increases the spread of skin infections, acute watery diarrhoea** or other outbreaks.

Each year since 2019, SI has been planning, preparing, and managing water supply to cope with the shortages. SI supplies water by boating in 3 sites and by remote pumping in 2 other sites. Therefore, piping and boating only provide **7.5 litres of drinkable water per person each day**, falling short of the required 15 litres.

Fluctuating and unpredictable weather makes the forecast of needs and duration of support very uncertain, putting the population under stress every year as to whether they will receive support during this period. **Since the 20th of April 2023, SI has renewed its support to the Pauktaw IDPs sites by providing water daily.**

Photo 2 – View of NC1 camp



2022–2023 WATER SCARCITY CYCLE

The **water scarcity cycle** is divided into 4 different phases according to the calendar month, as shown in the graph below.



1 Water scarcity mitigation

→ Actions related to **collecting additional rainfall** or **reducing water loss** from ponds (through seepage and evaporation) and via that reach self-sustainability of constant access to water:

Increase the volume of water collected	Reduce water loss
• Increase the height and strength of pond dikes to make them more floods and inclement weather resilient and to hold more water. • Increase the size of ponds by removing dikes between neighbouring ponds, deepening the ponds, or enlarging their size.	• Cover ponds to decrease evaporation from December to March. • Sealing ponds bottoms to prevent water infiltration or exfiltration with clay. • Installation of a geomembrane liner.
Challenges: • Due to land availability issues, space to build new ponds for rainwater harvesting in the camps is limited. • In many areas, it is not possible to deepen ponds due to rock formations or/and high-water table. This shall become harder with sea level rise. • Restrictions from landowners may prevent the improvement of some ponds.	

Achievements:

- 10** pond covers installed
- 6** pond waterproofing (including geomembrane lining)
- 10** pond extensions and coatings

Community feedback on pond digging in Kyen Nii Pin (KNP) camp:

Dullah, a daily worker involved in digging ponds in KNP, mentioned that the ponds were in bad shape with shallow bottoms and damaged and unequal embankments before SI intervention. He highlighted the positive impact of SI's intervention: *"The ponds are now deepened with their embankments raised and equal, they are much bigger now and more water can be collected in the coming rainy season".*



Photo 3 - Pond cover in KNP (Mar 23)



Photo 4 - Pond in KNP before digging and compaction (Feb 23)



Photo 5 - Pond in KNP after removing dikes, digging and compaction (Mar 23)

2 Water scarcity preparedness

- Activities to be carried out before the beginning of water distribution by boat or by remote pumping:
- **Predicting the onset of water scarcity** through weekly monitoring of water levels in each pond and constant communication with the population to identify social constraints to water use in each site;
 - **Preparation of all the equipment** for water pumping in the 5 sites and creation of the registration cards used by the team to know the amount of water to provide to each household;
 - **Coordination**
 - with the Camp Management Committee and the community to inform on the reduction in water availability and the onset of water scarcity;
 - between SI, UNICEF, and the WASH cluster on a weekly basis to share progresses and challenges;
 - with UNICEF and the boat owner for the preparation of water delivery.
 - **Communication/Awareness** through dissemination of messages to the camp population on how to save water;
 - **Preparation of a 3-day contingency stock of water** in ANYC and KNP to prevent any gap in water supply in case of delays in water boating delivery. Basic equipment is stored in the camps to allow for immediate repairs if needed.

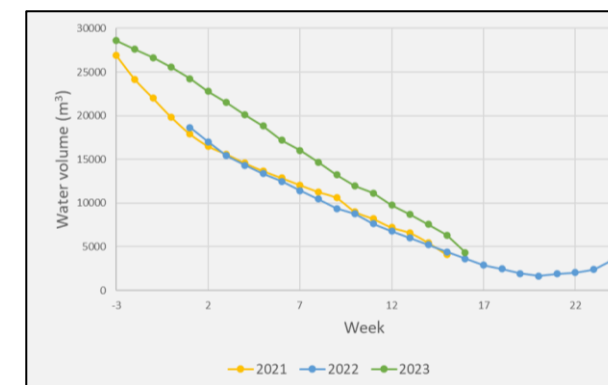


Figure 1 – Monitoring of water availability in NC1 camp in 2021, 2022 and 2023



Photo 6 – Receiver tanks in KNP (Apr 23)

3 Water scarcity response

→ To supply 7.5 litres per person per day in 5 IDP sites, by carefully organizing water-boating and piping, by continuously operating and maintaining the infrastructures and by ensuring an uninterrupted **daily water supply service**.



Photo 7 – Boat to carry water (Apr 23)



Photo 8 – Water distribution record of 7.5 l/d/p in NC2 camp (May 23)

Where do we stand in May 2023?

Location	Population (ind)	Water daily need (in L)	Response starting date	Modality
ANY C	5,405	40,538	20 April 2023	Water boating using water from a pond near Sittwe town
ANY V	2,604	19,530	4 May 2023	Water boating using water from a pond near Sittwe town
KNP	7,446	55,845	20 April 2023	Water boating using water from a pond near Sittwe town
NC1	5,089	38,168	2 May 2023	Remote pumping from external pond at 1.5 km outside the camp
NC2	5,268	39,510	2 May 2023	Remote pumping from external pond at 2.7 km outside the camp
TOTAL	25,812	193,590		



Challenges/limitations

- Only 7.5 litres of drinking water per person per day is provided, which does not allow meeting the standard.
- Reduction of available funding.
- Easy disruption of boat delivery due to bad weather, equipment failure, access challenges or civil unrest.
- Tensions arise within the community and between groups due to reduced water availability.

ACTION PLAN FOR 2023–2024

To invest in the short term to have a long-term impact, to sustain the water resource to cover the needs of the whole population all year long and, consequently, to reduce the financial cost of the response to water scarcity.

- ➔ **Addressing acute water needs** throughout the year, including during water scarcity, by drawing on external water sources.
- ➔ **Scaling up water scarcity mitigation measures** by improving ponds to quickly reduce water losses and thus the duration of the water scarcity period.

To implement 2023-2024 plan, SI needs the support of all stakeholders:

- ➔ **Communities**: to continue to support ponds improvement by SI team.
- ➔ **OCHA**: to advocate for continuous access to the camps with minimal disruption and delays.
- ➔ **Donors**: to allow SI to meet urgent needs and invest in long-term solutions, ensuring a positive impact for the upcoming 2024 water scarcity.



SOLIDARITÉS INTERNATIONAL thanks its donors for the constant support since 2019 and calls upon support as no funds has been secured for 2024 water scarcity cycle.

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