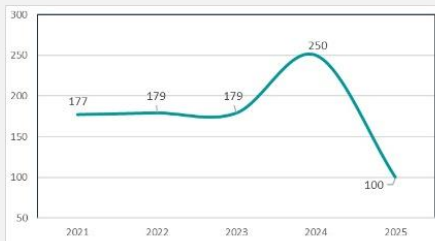




Shalbagan water reservoir at critically low levels: Currently holding only 30% of its total capacity.  
© Grover Casilla/UNHCR

### Water availability trend



Water Availability Trend in January per year (Unit - Thousand of cubic meter)



**159,000**

Affected Population in Teknaf Camps (22, 24, 25, 26, 27 and NRC)



**28<sup>th</sup> of February**

Estimated Date of Surface Water Reservoir Dry Out at Teknaf's Camps in 2025



**3.5 lpcd**

Amount of Water Available, if no emergency actions take place (Such Survival Need)



**2,385 m3/day**

Volume of Daily Water needed to Reach Sphere Standards (Such 15 lpcd) for The Affected Population

### Background:

The six camps in Teknaf (Camp 22, 24, 25, 26, 27 and Nayapara Registered Camp), home to around **149,000 Rohingya** refugees and **10,000 host's community** people, regularly experience significant water shortages during the dry season, particularly from January to May. Approximately **75%** of the population living on these camps rely on surface water sources to meet their daily needs of 20 litres per person per day (Lpcd) as there is no under-ground aquifer.

### Current context:

A review of the current water availability in reservoirs highlights a severe decline in January 2025: the reservoirs hold approximately **100,000 cubic meters** in mid-January 2025, compared to **250,000 cubic meters** at the same time in the past years, a drop down of **60%** mainly due to the insufficient rainfall in the region between late September and December compared to previous years.

Over the past years, humanitarian partners of the WASH Sector were forced to introduce water rationing for Teknaf camps during the dry seasons, usually starting early March with a ratio of **15** liters per person per day (Lpcd), and further down to **12** Lpcd when severe water shortage was experienced, or rain was late (usually around May). As per mid of January 2025, in most of the camps only **10** liters per person per day (Lpcd) is provided and surface water reservoirs will dry out completely if no action is taken before the end of February.

Two desalinization plants and few successful boreholes could in that case be the only sources of fresh water providing **3.5 liters of water per person per day (such minimum survival need)** with strong geographical disparities.

### Consequences:

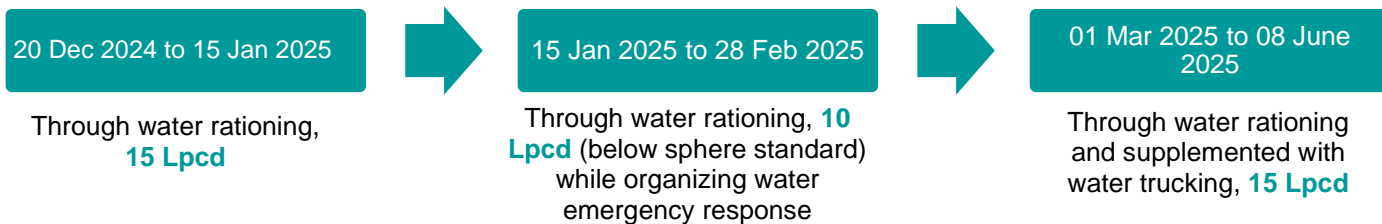
Water scarcity in Teknaf camps in 2025 is a humanitarian crisis. Failure to address immediate water supply needs will worsen living conditions, increase protection risks, and trigger WASH-related disease outbreaks and threat the life of 159,000 people. Urgent action is needed to safeguard health, dignity, and coexistence with host communities.



Temporary Dam drying in camp 22  
@Fazlul Karim/DSK

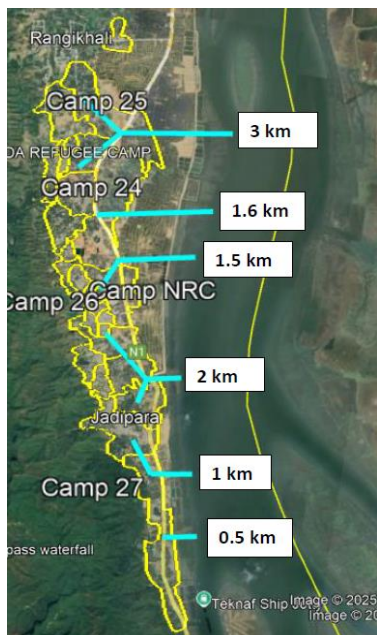
## Solution 1: Water trucking: 1.5 million USD

In light of the current water storage, WASH sector conducted a modelling of water supply to the Teknaf camps and concluded that water rationing must be introduced well earlier than previous years, and water trucking must be introduced from 1st March. Through these measures, refugee households would be able to receive water supply in the below quantity:



To supply 15 liters per person per day, we will need an **additional 1,800 m<sup>3</sup>** of water per day between March and May such 90 trucks of 10m<sup>3</sup> travelling twice per day between Ukhia (near source of fresh water) to Teknaf which sounds **unrealistic** (lack of water trucks, jam in the camps, road accidents, high cost, lack of near production borehole). Based on the availability of trucks, 350m<sup>3</sup> of additional fresh and safe water through water trucking sounds more realistic such can serve **only 6 Lpcd**.

## Solution 2: Water trucking (710,000USD) + “out of the box” solution (230,000USD): 940,000 USD



Map: complementary water pumping in Naf river

WASH sector will mobilize as many trucks as possible (even no-formal water-trucks) which could result to 350m<sup>3</sup> to 400m<sup>3</sup> of additional water per day to reach 6 liters of fresh and safe water (considering existing permanent water sources) such minimum for drinking and cooking (Sphere Standards 2018).

All the others water needs in camps 24, 25, 26, 27, NYC (135.000 people) will be covered during 4 months by Naf River through direct pumping to the camps. It will require independent unsafe water supply system: pumps, pipeline (1 to 3km), bladders + tapstands, hygiene promotion to explain save and unsafe water supply.

Such technical solution is affordable, easy and quick to implement through 6 pumping stations and pipeline along Naf river with around 10 distribution points (beneficiaries within 500m of distribution point) to provide extra 600m<sup>3</sup>/day easily.

Naf water is river and sea water mixed such a salinity of 17 g/l of Total Dissolved Solid (compared to 35g/l for the sea) and with low turbidity during the dry season (around 20NTU). WHO recommends less than 1g/l for fresh drinking water and mentions that TDS is not a drinking water's criteria, it's a recommendation based on quality (taste), not on safety (health risk). Water with salinity levels similar to seawater is generally safe for bathing and washing however, salty water after prolonged exposure could cause rashes on skin, eyes irritation and damage clothes over time. Finally, from an health point of view, many studies (Fewtrell, 2005) demonstrate that water quantity is more impactful than water quality on health in emergency.

## Conclusion & Emergency solution:

WASH sector (mostly UNHCR in Southern Teknaf's camps and UNICEF in camp 22) are exploring solutions for immediate water-trucking but, due to limitations, WASH partners will manage to cover only basic drinking and cooking need with safe water in the next 3 months (estimated 6 Ldcp instead of minimum 15 Ldcp recommended by Sphere).

As an emergency and temporary solution, to limit conflict and satisfy higher need during Ramadan, Naf river will be considered as an alternative water source (bathing, cleaning, ablution...).

Emergency water trucking is vital for immediate relief, but it is not a sustainable solution. While immediate funding is required to implement emergency measures, long-term solutions are critical to mitigate future risks and build resilience.



**Solution 2 (WASH sector recommended) will cost around 940,000 USD for 4 months.**