



**UNHCR**  
United Nations High Commissioner for Refugees  
Haut Commissariat des Nations Unies pour les réfugiés



European Union  
Civil Protection and  
Humanitarian Aid

## Q and A with Mohamed Tahar Kachebi, UNHCR Water, Sanitation and Hygiene (WASH) Officer June 2018



A Sahrawi worker in the water sector filling up a water truck at a “giraffe” station in Awserd camp. The objective of UNHCR, the UN Refugee Agency, is to guarantee a stable and continuous water supply to the 173,600 refugees living in the Sahrawi camps. UNHCR / R. Fraser

### **How does UNHCR, the UN Refugee Agency, provide water for the refugees?**

UNHCR, the UN Refugee Agency, works with the Sahrawi Water Department and two international NGOs *Solidaridad Internacional Andalucía (SI-A)* and *Triangle Génération Humanitaire (TGH)*, for all activities carried out in the water sector. The work consists of producing, treating and supplying potable water through a water distribution network and a fleet of water trucks in the camps.

The only existing water source in the area is a deep underground water aquifer. Water produced from this source is hindered by the presence of suspended solids and high concentrations of chemical elements. For this reason water is treated through a multi-stage, high-tech treatment system before it's distributed to beneficiaries. Over 70% of the total quantity of water distributed is done by trucking, and the remaining 30% is by water network. We are looking into all possibilities for the best balance, including a shift from trucking to expanding the network.

Thanks to actions undertaken in the last years and the continuous contribution from **EU Humanitarian Aid (ECHO)** and other donors in the water sector, water is supplied to refugees in a regular and continuous manner – even though the quantity supplied doesn't yet match with minimum humanitarian standards.

### **Why is water provision so important?**

Water is life. Water is directly connected to the health of the population. We all need to be properly hydrated for good digestion and to regulate our body temperature – especially in the summer months which are extremely hot and dry for the Sahrawi refugees. We also need the water we drink to be clean. This is why we treat it to reduce turbidity and salinity and regularly monitor its quality to ensure it is meeting WHO standards. Families store water in household tanks, and some are made of materials which can pose a health hazard, like metal when it gets oxidized. Because of this, one of our activities is the provision and distribution of reinforced concrete water storage tanks, to preserve the quality of water and gradually renew rusty tanks – for 150 families a year.



UNHCR WASH Officer Mohammed Tahar Kachebi (blue t-shirt) with partner SI-A (red vest) and women active in the water department (right), at a water distribution point in Smara camp.

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### **How much water is needed, and how much is provided?**

Currently, the refugee population is supplied with about 1.62 million liters (L) of potable water per day, which is only about 10 L per person per day – as the population consists of more than 170,000 refugees. A minimum production of about 3.5 million L per day needs to be achieved to reach the standard of 20 L per person per day.

### **What are the challenges of water supply?**

The camps in which the Sahrawi refugees live are located in a harsh desert climate. Summer daytime temperatures at these camps regularly approach 50 °C (122 °F). There is little rain for most of the year, and water resources are scarce. The only existing water source here is the groundwater, which is characterized by its deepness, turbidity and high concentration in mineral and chemical elements. This situation makes the achievement of minimum standards in terms of quantity and quality of water (20 L per person per day) rather complex and expensive. The distribution of water by water trucks is unavoidable due to the insufficient network (pipelines) coverage to reach all refugees.

Due to the complexity of the existing water system and the climate, the water supply has always been one of the biggest challenges for UNHCR and its partners. This is especially the case in the summer months.

### **What kinds of innovative technologies is UNHCR using?**

The supply system is composed of deep boreholes, reservoirs, a reverse osmosis station for water treatment, pumping stations, water laboratory and water networks as well as a fleet of water trucks. In 2017, UNHCR introduced a sand decanter to improve the water quality, and began using five Diver probes which collect specific information from boreholes such as water pressure and temperature.

### **Donors to UNHCR earmarked activities in 2018**

- United States of America
- Sweden
- Italy
- Canada
- France
- European Union