

# Climate change impact in Afghanistan



**7th most affected country in the world**

**+4.8°C rise**  
(1950–2020)

**0.07% total contribution**  
to global Greenhouse Gasses (GHGs) emissions

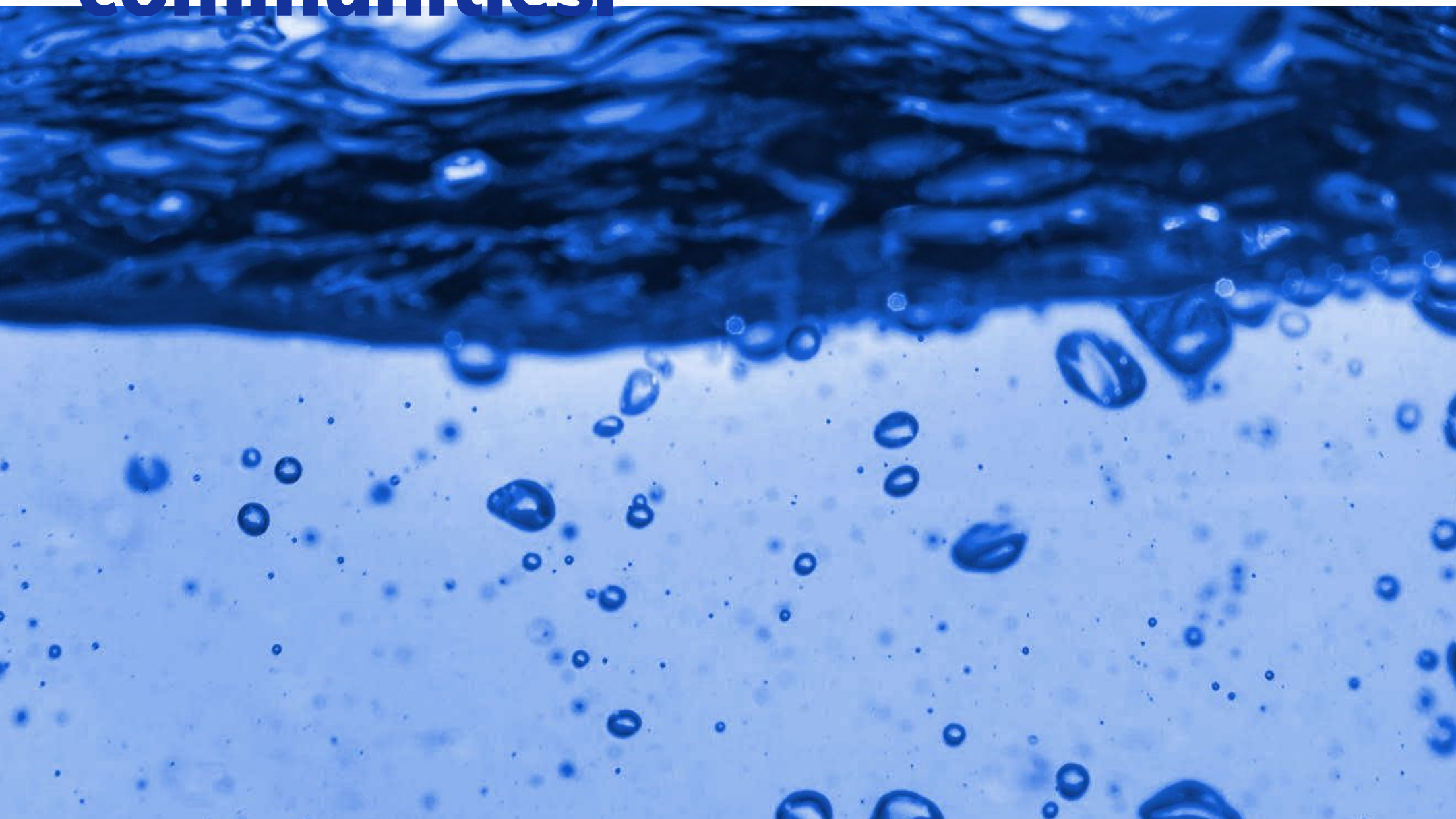
**2,300,000 displaced**  
(2018–2021)

**13,000,000 affected**  
(2018–2021)

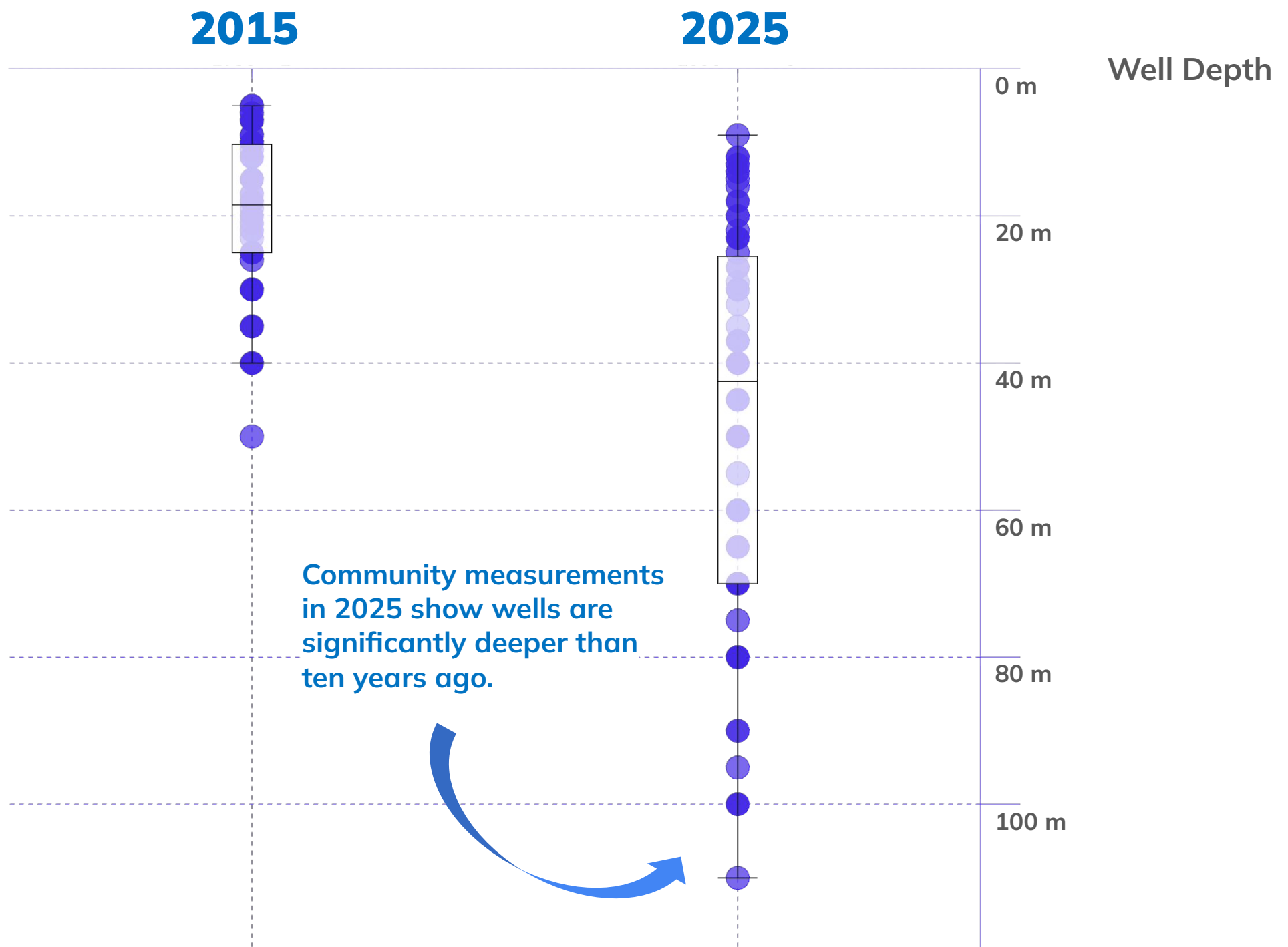
**170,000 affected by floods in 2024**

**22,900,000 need aid 2025**

**Poor water quality is not just an environmental issue it is a crisis of health, economic stability, and social conflict in communities.**



# Afghanistan is digging deeper and deeper for water.

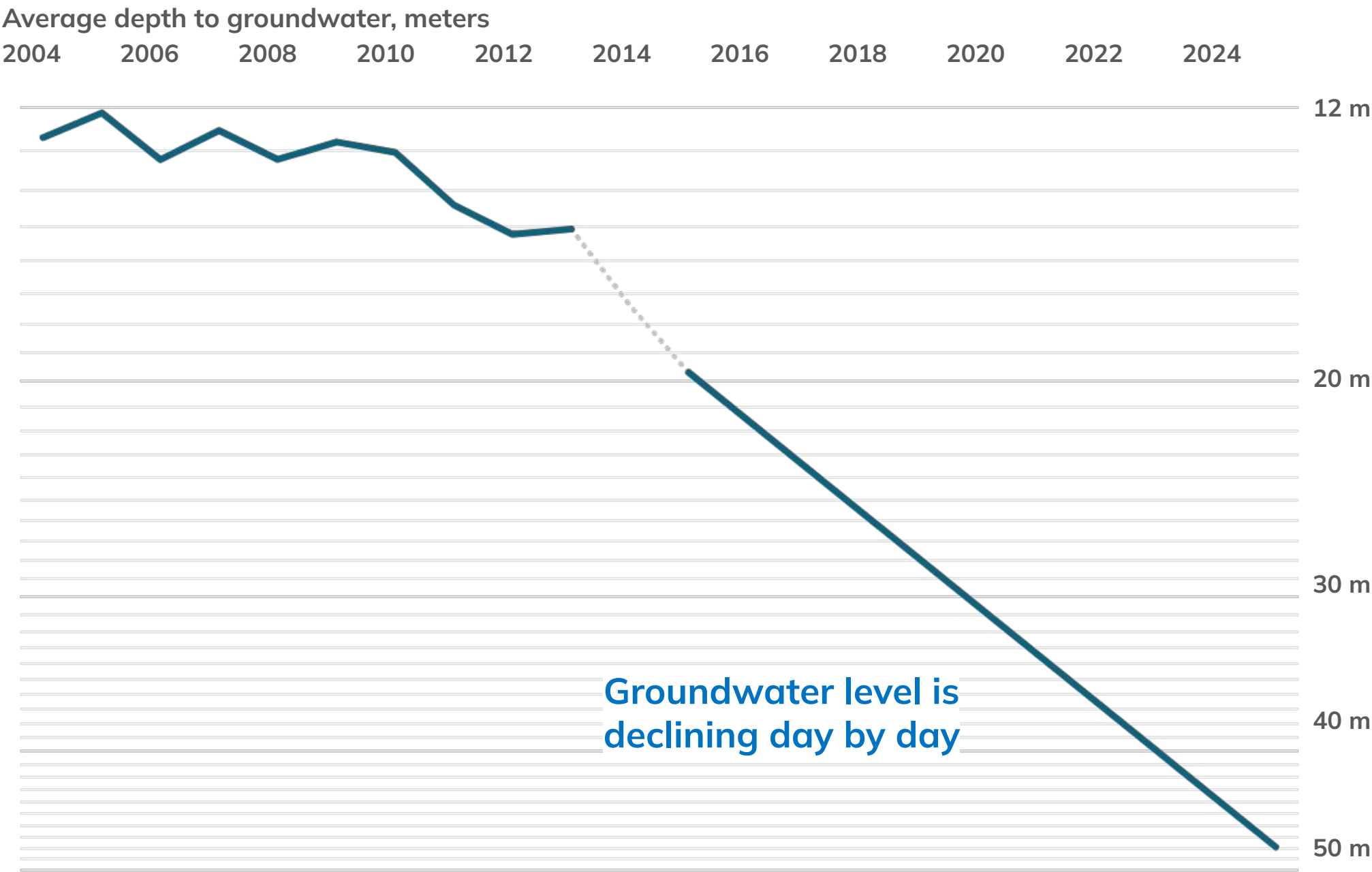


**Soon, there'll be no water left.**

Source: ECOFA Measurements (2025) and Community Estimates (2015)

# The science lines

**Up.** Research station measurements from 2004-2013 confirm the 2015 community estimates, and highlight the drastic decline in groundwater depth over the past decade.



Source: 2004–2013: Annual Groundwater Level Dataset (Jasechko et al. 2024, Nature), 2015 and 2025: ECOFA



We are working with communities on practical fixes, testing water, improving wells, and helping farmers manage salinity, so children have a chance at a greener future.





# Impacts of Climate Change in Afghanistan

- Rising temperature is reshaping communities in Afghanistan
- From drought to floods, the climate crisis is no longer tomorrow's threat; it is today's reality.





People in Bamyan & Kabul want to reflect their voices for donors and NGOs to work for a climate change resilience mechanism.



Field survey in Bamyan province ECOFA

# Partner with ECOFA to target hotspots now.

Surface water  
management  
Dams,  
Trenches,  
Pools

Groundwater  
Management

Drinking  
water supply



Public  
awareness  
directly with  
communities

Data  
collection for  
mitigation  
measurement

Standard  
Irrigation  
system

Opportunities  
for local  
people

Decreasing  
poverty rate



# The salty waters of Kabul and Bamyan Provinces



# Would you drink this cup of tea?

In a village in Bamyan, we tested well water in a glass teacup.

The cup looks harmless.

The meter says otherwise.

At  $EC = 2,036 \mu S/cm$ , this “tea” is too salty for many crops.

For people, high salinity is linked to a greater risk of hypertension.

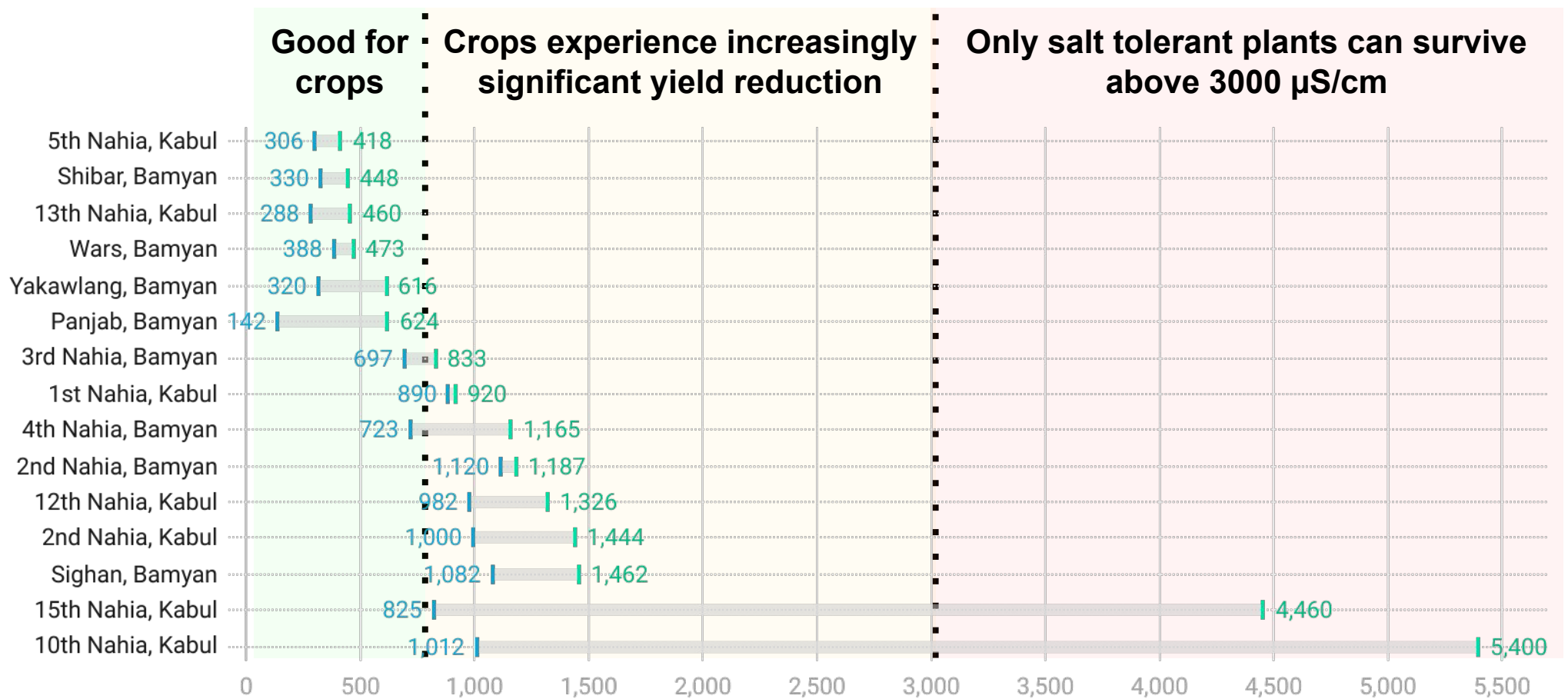
Source: Environment Conservation Organization for Afghanistan (ECOFA)





# Why it matters

## Electrical Conductivity at the district level in Kabul and Bamyan provinces



Source: Environment Conservation Organization for Afghanistan (ECOFA)

# What does it mean for Kabul and Bamyan?



In Bamyan, most districts have safe salinity levels, but areas like Sighan and 2nd Nahia are much higher — enough to hurt potato and cereal harvests. If nothing is done, rising salinity will damage the soil and put farmers' food security at risk.

In Kabul, salinity is much worse. Some areas reach 5,400  $\mu\text{S}/\text{cm}$ , where only salt-tolerant crops can grow. This threatens harvests and could leave farmland unusable, putting farmers' livelihoods at risk.



# What is needed now!

- ⇒ Target urgent support to Kabul & Bamyan provinces
- ⇒ Improve irrigation management
- ⇒ Flush salts from soils to protect crop roots.
- ⇒ Community-based EC and groundwater depth tracking to safeguard priority wells.



**Partner with us now!**

We are building the resilience and livelihoods today for tomorrow.

# Salty Waters: Kabul and Bamyan Confront Rising Salinity Crisis

