LESSON 16:
BUILD WATER, SANITATION AND HYGIENE (WASH) AND ECOSYSTEM RESILIENCE

Humanitarian actors should move from short-term water trucking and emergency WASH responses towards integrated, sustainable water and ecosystem management as soon as possible.

Number of documents contributing to the lessons: 17

Average evidence scores of all documents contributing to the lessons: 3.8

Median evidence strength of documents contributing to the lessons: 80%

Water access is among the most immediate and critical needs during drought, yet reliance on emergency measures, such as water trucking, is unsustainable and costly. While lifesaving in acute crises, trucking must be complemented by systemic solutions that ensure lasting access, such as mapping local sources, rehabilitating boreholes, increasing storage and establishing permanent water-delivery and governance structures, as well as ensuring an enabling policy environment. WASH facilities should also be accessible for persons with disabilities, older people and others with mobility challenges.

Effective drought response should include embedding water and ecosystem programming into long-term sustainability strategies, such as soil and water conservation, water storage and drainage, landscape restoration and management, and government leadership and accountability. Tailored approaches must reflect how drought differently impacts people's livelihoods – especially farmers, pastoralists and the urban poor – so that resources are distributed equitably and efficiently. This will include training local water committees and linking them to financial protection schemes.

Finally, water security cannot be separated from environmental health. Investing in ecosystem resilience by restoring rangelands, managing watersheds and protecting forests and aquifers supports both human and ecological systems. Building resilience requires expanding capacities for water harvesting and storage so that households, farmers and communities can better withstand prolonged dry periods. Facilitating access to finance through grants, micro-loans or subsidies enables investment in affordable water infrastructure and technologies, while integrating modern and traditional methods ensures solutions are context-appropriate and locally owned.

Back to summary of lessons

Following severe and/or prolonged drought, flooding may occur due to the ground not being able to absorb as much surface water. Responding actors can support soil and water conservation, landscape restoration and management to increase resilience to droughts.[8] Strengthening the regulatory frameworks that govern natural-resource use ensures that humanitarian and development interventions reinforce one another, creating the foundations for sustainable drought resilience.

RECOMMENDATIONS

- **Humanitarian and development actors should integrate water resource management and ecosystem considerations into drought preparedness, response and recovery strategies.**
- **Humanitarian actors should design emergency water interventions as part of a broader strategy that considers sustainability, cost and transition to longer-term solutions.**
- **Humanitarian, development and environmental actors should invest in water infrastructure, catchment management and ecosystem restoration to reduce vulnerability to future droughts.**
- **Humanitarian and development actors should support inclusive and participatory water governance and natural resource management, paying particular attention to gender, power dynamics and marginalised groups.**
- **Governments and partners should strengthen coordination across water, environment, agriculture and humanitarian sectors to improve the coherence and sustainability of drought responses.**
- **Donors should support multiyear and flexible financing for water- and ecosystem-resilience interventions in drought-prone contexts.**

8 The Delphi panel members highlighted that traditional structures for water storage and drainage, such as the Wadi or Hafir, should be promoted in arid regions (where contextually relevant) to recharge groundwater by controlling water flow and encouraging water infiltration.

Back to summary of lessons