Harrek Way'ak Campaign open day in Mlaih, Madaba, Jordan - 2025, Mercy Corps

Climate-Related Challenges Across Scales

Key Insights from Jordan

Climate Change is intensifying Jordan's existing vulnerabilities, increasing exposure to climate-related disaster risks across the country. Rising temperatures, intensifying flash floods, and deepening water scarcity are converging into a growing resilience challenge, one that is already reshaping daily life across the kingdom.

Flash floods

17% of Jordan's territory is now classified as **high-severity hazard zones**, exposing communities, infrastructure and livelihoods to sudden disaster.[1]

Estimated peak flood and surface runoff volumes range from approximately **5 MCM in the Jordan Valley** to up to **65 MCM at the Hammad Basin outlet.**[2]

Watershed basin size and shape are identified as key factors influencing **total surface runoff** and the rate of **water flow to main channels.**[3]

Heatwaves

45°C

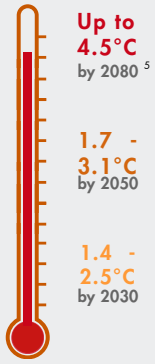
Jordan is experiencing more frequent heatwaves, **with peak temperatures during these events exceeding 45°C.**[4]

~60

Heat-stroke cases have increased by **~60 cases annually** between 2020 and 2023, signaling heat-related health stress.[6]

4th national risk

Heatwaves are now ranked as **Jordan's fourth highest national risk,** following earthquakes, flash floods, and landslides.



Water Scarcity

the existing vulnerability amplifying all climate risks

61 m³

Jordan ranks among the most water-stressed countries globally, with **renewable water availability of 61 m³/person/year,** far below the **500 m³/person/year absolute scarcity threshold.**

200 m³

92% of Jordan is classified as **arid to semi-arid**, receiving less than **200 mm of rainfall annually.**

12 % 29

The majority of **Jordan's water supply depends on groundwater,** yet recharge rates are projected to **decline by 12% to 29% between 2020 to 2050.**

Climate risks in Jordan do not occur in isolation, they reinforce one another, pushing communities closer to repeated losses and long-term instability.

1 Climate Risk Profile Jordan
2 Assessment and Mapping of Flash Flood Hazard Severity in Jordan
3 Assessment and Mapping of Flash Flood Hazard Severity in Jordan
4 Arab Weather, "Jordan Is Surviving This Year's Record-Breaking June Heatwave," ArabiaWeather, June 18, 2025
5 Climate Risk Profile Jordan
6 National Climate Change Health Adaptation Strategy of Jordan 2024-2033
7 National Water Strategy 2023–2040

CRMC grading dissemination and prioritisation event in Azraq, Zarqa, Jordan - 2025, Mercy Corps

Climate Resilience at the Community Level

While climate risks are intensifying nationwide, their impacts are not felt evenly. Exposure, vulnerability, and capacity to respond vary significantly from one community to another. To understand how these national climate pressures translate into lived realities at the local level, Mercy Corps Jordan applied the **Climate Resilience Measurement for Communities (CRMC)** framework across five climate-vulnerable communities: Azraq, Shobak, Wadi Musa, Mlaih, and Dieban. The assessment provided a localized evidence base highlighting key resilience gaps and systems under stress, reinforcing that effective climate adaptation begins with community-led solutions.

Community resilience findings across key dimensions

Guided by the CRMC framework, community resilience in the assessed locations is shaped by a combination of economic security, human capacity, social cohesion, infrastructure services, and the surrounding natural environment. Taken together, these dimensions reveal resilience patterns and highlight where communities are able to cope with climate stress, and where they remain exposed.

Across the communities, indigenous practices and local knowledge stand out as a key strength. Community members **demonstrate the ability to learn, adapt behaviors, and engage with adaptive resilience-building actions**, **rooted in long-standing experience** with environmental stress, particularly when provided with targeted support and information.

Social cohesion and informal support networks play a critical role in helping communities cope with climate shocks. **Strong family ties, neighbor support, and informal solidarity mechanisms consistently help households manage immediate impacts**. However, **these strengths are not yet matched by equally strong formal or institutionalized collective mechanisms** that could support longer-term adaptation and coordinated response.

Institutional preparedness for floods is more developed, while **systems addressing extreme heat present opportunities for further development** across all five locations, particularly in risk reduction and response planning.

Across communities, **emergency response, particularly by the Civil Defense Directorate emerges as a relative strength,** with approximately **95% trust reported across all communities,** despite limited formal preparedness and planning.

The natural environment remains underutilized as a resilience asset across all five locations. Despite variation in vegetation and tree cover between communities, existing natural infrastructure can be leveraged more effectively to support ecosystem-based approaches to heat stress reduction and flood risk management.

Local planning and budgeting for climate adaptation remain limited across most locations. In **Azraq, Dieban, Shobak, and Mlaih, there are few dedicated budgets or formal local plans specifically addressing heatwave adaptation**, however resilience **actions in these communities tend to be reactive**, focused on emergency response, or dependent on national institutions, donors, or external support. **Wadi Musa** presents a partial exception, **where climate change adaptation, particularly in relation to flood risk, is integrated into local planning processes**.

Across the five assessed communities, **economic capacity remains the most constrained dimension of resilience.** Between **49–66% of households report being unable to cover even one week of emergency expenses**, indicating limited financial buffers to absorb or recover from climate-related shocks.

Energy access and affordability are critical for coping with heatwaves, yet levels of resilience vary by location. **Energy affordability is a significant challenge** in Azraq, Dieban, and Shobak, and remains a concern, though to a slightly lesser extent, in Mlaih, **where many households report spending a large share of their income on basic energy needs such as cooling and electricity.**

Access to early warning systems and climate risk information exist across all locations; however, **community understanding and use of this information vary.** Awareness and utilization are stronger in Wadi Musa and Shobak, while the translation of information into practical action appears more limited in Azraq, Mlaih and Dieban.

Training during the Safe Winter Campaign by the Civil Defense in Wadi Musa, Maan, Jordan - 2025, Mercy Corps

Mercy Corps' Commitment to Action

In response to intensifying climate risks and resilience gaps identified at both community and national levels, **Tabeaa: Strengthening Climate Resilience in Jordanian Communities** represents a sustained, long-term commitment to advancing climate resilience in vulnerable communities across Jordan. **Co-funded by the Z Zurich Foundation and the Embassy of Switzerland in Jordan,** and implemented as part of Mercy Corps' engagement under **the Zurich Climate Resilience Alliance** (a multi-sectoral partnership focused on enhancing resilience to climate hazards in both rural and urban communities), the project builds on earlier phases of evidence, partnerships, and learning. Now in its current phase through 2027, Tabeaa pursues a structured resilience pathway, delivered in close collaboration with key national, local, and sectoral partners to drive sustainable and scalable climate resilience outcomes.

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Climate Resilience Alliance

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