

El Niño-Related Hazards: Emergency Operations in Asia Pacific (2023–2024)

Lessons from DREF and Emergency Appeal Operations associated with hazards linked to the 2023–2024 El Niño Phenomenon. Across Asia Pacific, El Niño-related emergency operations demonstrated that climate-induced crises are increasingly prolonged, interconnected, and context-specific. Despite differences in hazard type and context, common lessons emerged around preparedness, technical readiness, operational flexibility, volunteer capacity, community engagement, and the importance of linking humanitarian assistance with longer-term resilience building. As climate variability and extreme weather events become more frequent, National Societies and IFRC must continue investing in anticipatory action, local preparedness capacities, adaptive response modalities, and integrated resilience approaches to better support vulnerable communities before, during, and after climate-related emergencies.

Disclaimer: This report was developed with the support of A.I. tools and should be checked for accuracy against the source material.

Operations Reviewed:

Emergency Operations in Asia Pacific (2023–2024) for Hazards linked to El Niño



15 operations across Asia Pacific
responding to diverse hazards
linked to the 2023–2024 El Niño
phenomenon.

COUNTRY	YEAR	HAZARD	CODE
Afghanistan	2023	Flash Floods	MDRAF012
Afghanistan	2024	Flash Floods	MDRAF015
Bangladesh	2024	Heatwave	MDRBD034
India	2023	Floods and Landslides	MDRIN028
Pakistan	2024	Flash Floods	MDRPK025
Sri Lanka	2024	Monsoon Floods	MDRPK026
Sri Lanka	2023	Floods and Landslides	MDRLK018
Mongolia	2024	Flooding	MDRLK019
Indonesia	2023	Urban Flash Flooding	MDRMN019
Indonesia	2023–2024	Drought	MDRID026
Laos	2023	Flooding	MDRLA009
Myanmar	2023	Flooding	MDRMM019
Federated States of Micronesia (FSM)	2023–2024	Drought	MDRFM002
Marshall Islands	2024	Winter Storm and Coastal Inundation	MDRMH003
Marshall Islands	2024	Drought	MDRMH004



Key Messages

There was no dedicated global, regional, or country-level operation or review specifically focused on El Niño. Instead, National Societies supported by IFRC responded through individual DREF and Emergency Appeal operations addressing hazards associated with the phenomenon. This summary consolidates lessons from those operations to identify common trends, operational learning, and good practices.

El Niño Is a Risk Multiplier

Not a hazard itself — it manifested through droughts, floods, heatwaves, water shortages, food insecurity, and livelihood disruptions across Asia Pacific.

Access Was the Hardest Challenge

Geographic isolation, security restrictions, and logistical constraints repeatedly determined what assistance could be delivered and how.

Local Volunteers Were Critical

Across multiple operations, local volunteers maintained access, conducted assessments, supported distributions, and facilitated community engagement when external responders were constrained.

Flexibility Mattered More Than Plans

Operations that adapted modalities, timelines, and delivery approaches were better able to respond to changing conditions and evolving needs.

Climate Emergencies Don't End With Funding

Many operations highlighted the continuing gap between short-term humanitarian response and longer-term resilience needs in water infrastructure, livelihoods, and climate adaptation.

Learning at a Glance

Preparedness & Technical Readiness

Pre-position equipment, build technical capacity, strengthen anticipatory action

Operational Flexibility

Adapt modalities, adjust timelines, transition between phases

Humanitarian Access

Address logistics constraints, plan for remote settings, enable local implementation

Community Engagement & Inclusion

Tailor feedback channels, use SADDD, reach vulnerable groups

Cash Assistance & Information Management

Expand CVA preparedness, invest in PMER & IM, use digital tools effectively

Volunteer Management & Duty of Care

Invest in readiness, strengthen safety measures, support volunteer well being

Learning Summary: Preparedness, Access & Flexibility

LESSONS 1-5

1 Slow-Onset Emergencies Require Flexible Operational Approaches

El Niño-related droughts evolve over extended periods, often transitioning from preparedness to emergency response and recovery. In Federated States of Micronesia and the Marshall Islands, operations initially focused on preparedness and anticipatory actions but expanded as drought conditions intensified and governments declared states of emergency. Several operations required extensions as humanitarian needs persisted beyond the original implementation period, highlighting the need for flexible operational approaches that adapt to changing environmental conditions and evolving needs.

2 Technical Preparedness Significantly Influences Response Effectiveness

Having specialized equipment, technical expertise, and maintenance capacity in place before disasters is critical. In the Marshall Islands, the absence of Reverse Osmosis units at the onset of the drought limited immediate response options and contributed to delays in providing safe drinking water. Similarly, flood operations in Pakistan demonstrated the importance of having dewatering pumps available to address secondary public health risks associated with stagnant and contaminated floodwater. These experiences reinforced the value of preparedness investments and pre-positioned response capacities.

3 Geographic Isolation and Access Constraints Require Adaptive Delivery Models

Operational access constraints significantly influenced response delivery across multiple contexts. In the Marshall Islands, vast distances between islands, infrequent transport links, and high transportation costs required teams to combine assessments, distributions, monitoring, and community engagement activities within single deployments. In Pakistan, security restrictions prevented international personnel from accessing affected areas, making local volunteers the primary mechanism for implementation and monitoring.

4 Local Volunteers Are Critical to Maintaining Humanitarian Access

Across multiple operations, local volunteers played a critical role in ensuring continuity of assistance in difficult operating environments. In Pakistan, local volunteers became the primary link between affected communities and the response due to security restrictions on external personnel. In the Marshall Islands, volunteers supported water quality monitoring, hygiene promotion, community engagement, and operation of water purification systems.

5 Operational Flexibility Improves Response Effectiveness in Dynamic Contexts

Several operations demonstrated the importance of adapting response modalities as conditions changed. In Pakistan, security concerns prevented the continued deployment of Mobile Health Teams, leading to the introduction of Cash for Health assistance for pregnant and lactating women. In the Marshall Islands, changing drought conditions required adjustments to planned water distribution activities and greater emphasis on strengthening long-term water purification capacity.

Learning Summary: Cash, Communities, Water & Technology

LESSONS 6-10

Cash Assistance Provides Effective and Adaptable Support

- 6** Cash assistance proved effective across a range of El Niño-related contexts where markets remained functional. In Pakistan, multipurpose cash grants enabled households to meet immediate food and basic needs, while Cash for Health grants supported access to essential healthcare services. Experiences from Indonesia, Federated States of Micronesia, and Sri Lanka similarly demonstrated that cash assistance provides flexibility, dignity, and choice to affected populations.

Community Engagement Mechanisms Must Reflect Local Preferences

- 7** The effectiveness of Community Engagement and Accountability mechanisms varied according to local context and community preferences. In Pakistan, hotline services and feedback mechanisms achieved relatively high levels of awareness and utilization. In contrast, face-to-face engagement during household visits proved more effective in the Marshall Islands, while Indonesia identified WhatsApp as a preferred communication channel.

Inclusive Approaches Improve Access to Assistance

- 8** Operations in Afghanistan and Pakistan highlighted the critical role of female volunteers and staff in accessing women and children in contexts where cultural norms restrict interaction with male responders. Collecting and utilizing sex, age, and disability-disaggregated data supported more inclusive planning and implementation.

Water Security and Public Health Are Closely Interconnected

- 9** Both drought and flood responses highlighted the strong relationship between water access and public health outcomes. In the Marshall Islands, prolonged drought increased water salinity, affected agricultural production, and contributed to hygiene-related health risks. In Pakistan, floodwaters contaminated water sources and sanitation systems, increasing risks of waterborne disease.

Digital Tools Improve Efficiency but Do Not Replace Human Capacity

- 10** Digital platforms such as Kobo Toolbox and Red Rose improved data collection, registration, and monitoring across several operations. However, experiences from Afghanistan, Federated States of Micronesia, Marshall Islands, Mongolia, and other contexts demonstrated that technology alone does not guarantee quality information.

Learning Summary: Volunteers, Resilience & Operations Reviewed

LESSONS 11-12

Lesson 11: Volunteer Safety & Duty of Care

Operations conducted in extreme environments highlighted a range of risks faced by volunteers, including exposure to extreme temperatures, hazardous travel conditions, remote deployments, and insecure operating environments. Volunteer safety and duty of care require continued attention across all emergency response operations.

Lesson 12: Linking Response to Recovery & Resilience

A recurring challenge across several operations was the limited ability to address longer-term recovery and resilience needs within short emergency response timeframes. Many operations highlighted the continuing gap between short-term humanitarian response and longer-term resilience needs, particularly in areas such as water infrastructure, livelihoods, and climate adaptation.

Conclusion

Across Asia Pacific, El Niño-related emergency operations demonstrated that climate-induced crises are increasingly prolonged, interconnected, and context-specific. As climate variability and extreme weather events become more frequent, National Societies and IFRC must continue investing in anticipatory action, local preparedness capacities, adaptive response modalities, and integrated resilience approaches to better support vulnerable communities before, during, and after climate-related emergencies.

Annex: Operations Reviewed

Country	Year	Hazard	DREF/Appeal Code
Afghanistan	2023	Flash Floods	MDRAF012
Afghanistan	2024	Flash Floods	MDRAF015
Bangladesh	2024	Heatwave	MDRBD034
India	2023	Floods and Landslides	MDRIN028
Pakistan	2024	Flash Floods	MDRPK025
Pakistan	2024	Monsoon Floods	MDRPK026
Sri Lanka	2023	Floods and Landslides	MDRLK018
Sri Lanka	2024	Flooding	MDRLK019
Mongolia	2023	Urban Flash Flooding	MDRMN019
Indonesia	2023-2024	Drought	MDRID026
Laos	2023	Flooding	MDRLA009
Myanmar	2023	Flooding	MDRMM019
Federated Sate of Micronesia	2023-2024	Drought	MDRFM002
Marshall Islands	2024	Winter Storm and Coastal Inundation	MDRMH003
Marshall Islands	2024	Drought	MDRMH004