



2023 MOROCCO EARTHQUAKE

DISASTER BRIEF

GLIDE N° EQ-2023-000166-MAR- MENA REGION - SEPTEMBER 2023

DISASTER OVERVIEW

A earthquake of 6.8 magnitude shook Morocco on September 8, 2023, at 11 p.m. local time, followed by a magnitude 4.9 aftershock 19 minutes later. According to USGS, the quake originated deep below the surface, at a depth of 18.5 km with its epicenter identified in the High Atlas Mountains, 71km south-west of the city of Marrakesh. The earthquake was felt as far away as Portugal and Algeria.

At least 2,901 people were killed, mostly in Marrakech and five provinces near the epicenter, and another 5,530 were injured, according to Morocco’s Interior Ministry .According to the GDACS report, approximately 320,000 people were exposed to the earthquake with the remote villages nestled in the High Atlas Mountains, right at the earthquake’s epicenter, suffering substantial losses. According to Reuters the destruction in some areas is described as “absolute,” with not a single house left standing.

The continued risk of landslides and the large distances involved complicated the rescue and relief efforts. with emergency services facing difficulties in reaching people in need. While earthquakes of this size in the region are uncommon (since 1900 there have been only nine magnitude 5 events), this earthquake was the deadliest in Morocco since 2004.

**TOTAL POPULATION
LIVING IN AFFECTED
AREAS**

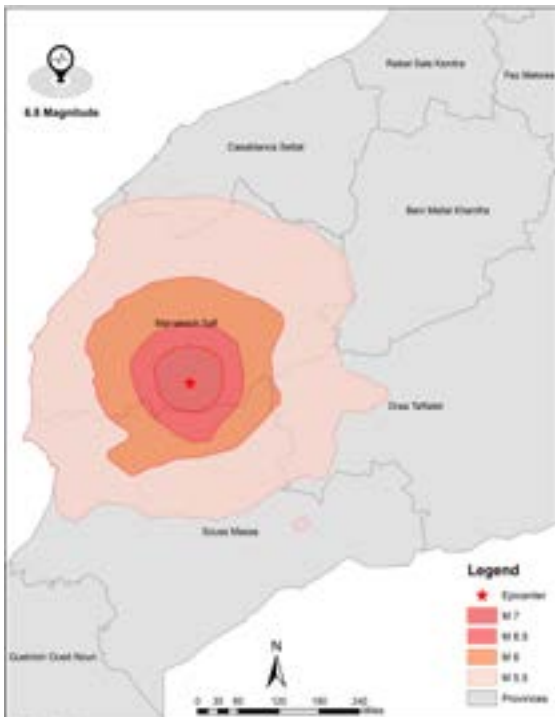
6.6Million

**TOTAL # POPULATION
LIVING WITHIN 50km OF
THE EPICENTRE**

380k

**TOTAL # OF
CASUALTIES**

8.4K



NATIONAL SOCIETY SITUATION REPORT

The Moroccan Red Crescent (MRC) teams are coordinating closely with the local authorities on the ground assessing the situation and providing support to the affected people.

- MRC deployed 3 operations managers in the initial response.
- In Taroudant Province, 60 paramedics are on the ground. Services provided include evacuation, first aid, transporting the wounded to the hospital, psychological support, reducing panic, organizing with the authorities and Supervision of food supplies, blankets, and tents shipped from the regional warehouse in Agadir. 27 trained first aid volunteers were deployed in the tourist city of Marrakesh. Some of the visitors to the city are doctors and are currently volunteering to support in providing medical support to the injured in the area. MRC distributed in El Hous: 600 tents, 3000 blankets, food aid for one month, and potable water for 600 families for 15 days.
- The disaster categorization was announced as RED category in 9/11/2023 and an emergency appeal is under development and will be published. Meanwhile, A DREF allocation of CHF 1 million was approved and released to support the response of the national society on the ground.

Source: IFRC
Disclaimer: The maps used do not imply the expression of any opinion on part of the International Federation of Red Cross and Red Crescent Societies or National Societies concerning the legal status of a territory or of its authorities.



SCOPE AND SCALE

Damage to shelter and housing: The earthquake impact on shelter and housing has been devastating in most of the affected area, with very high levels of damage to dense residential areas of Marrakesh as well as to villages in the rural and mountains area of the Atlas. Many affected households are sleeping in open air or improvised collective shelters, although many public buildings sustained structural damage as well, rendering them unsafe for occupancy. There have been multiple reports of internal displacement with families leaving their villages and moving to urban areas seeking for shelter and humanitarian assistance, thus increasing pressure on early relief efforts. According to Reuters, villagers in the affected areas have been forced to camp outside for safety as their traditional mud brick houses were flattened by the quake.

Damage assessments are ongoing in parallel with search and rescue efforts, however there aren't official estimates yet due to the lack of consolidated reports. While the epicenter of the earthquake was not densely populated, the impact on local structures was significant. Several cities, notably Marrakesh, Taroudant, Asmiz and Chichaoua have suffered heavy destructions. The earthquake also caused damage to the old city of Marrakech, a UNESCO World Heritage site, where a minaret toppled over and parts of the historic city walls collapsed along with some traditional houses. According to an Unosat analysis performed on 10/9/2023, there are over 392 damaged structures and over 347 potentially damaged structures. According to Action for Humanity's published situation report, the provinces of Chichaoua and Taroudant have been the hardest hit in terms of school damage.

Impact on Health systems and structures. According to Islamic Relief's the earthquake caused significant harm to Morocco's health infrastructures and systems, with hospitals and clinics unable to function due to structural damage. Moreover, damaged and/or blocked roads prevent ambulances from reaching severely affected communities, especially in mountainous areas where helicopters have been used to transport injured people to the hospitals. Regarding damage to key infrastructure, most of damage has been sustained by the road network. The earthquake wreaked havoc on the local health infrastructure. Many rural areas surrounding Marrakech, including the provinces of al-Haouz, Ouarzazate, Azilal, Chichaoua, and Taroudant, bore the brunt of the disaster. Not only were health facilities damaged, but accessibility to remote villages in the Atlas Mountains became a significant concern, hampering rescue and relief efforts.

People displaced. According to Al Jazeera, some survivors have fled their destroyed villages and are camping along the Tizi n'Test road, connecting remote valleys to Marrakesh. and according to Acaps the number of people displaced by the earthquake is high because of significant damage to buildings, making shelter needs a priority in al-Haouz. The numbers of people remaining in temporary shelters in their village and those displaced to other villages or provinces are unclear. The earthquake has affected about 100,000 children across all affected areas, who likely need protection assistance.

The earthquake's most extreme shake zone occurred in an area where residents are relatively lower wealth, and also occurred in a zone with limited access to hospitals and other health facilities. This has resulted in a significant strain on the health system, as the limited access to hospitals and health facilities has made it difficult for those affected by the earthquake to receive the medical attention they need.

Aggravating Factors

Drought. Morocco is heavily exposed to climatic shocks, which remain a major source of macroeconomic volatility. Out of the past five agricultural seasons, four were affected by drought with different degrees of intensity. The government has traditionally coped with water scarcity through dams and irrigation investments, but the latest drought has coincided with historically low water reserves, severely reducing water availability for irrigation.

Economic downturn and high inflation. In 2023, Morocco's economy faced challenges from supply shocks, including drought and rising commodity prices. Inflation in Morocco peaked at 8.3% in 2022 due to global supply chain disruptions according to the World Bank. The decline continues from 2022 when growth forecasts were adjusted to 1.1%, with inflation at 6.6%. The average standard of living of households in real terms fell by 2.2% annually between 2019 and 2021, and forecasts show that this decline reached 5.5% in 2022. Further, absolute poverty and vulnerability rates increased for the first time in decades, from 1.7% to 3% and from 7.3% to 10% respectively between 2019 and 2021.

Humanitarian Conditions

Shelter & NFIs. Temporary Shelters and NFIs are an immediate priority need due to a large amount of damage and loss of household items. However, shelter and NFI response should also consider winterization needs from the beginning as night temperatures in December will fall below 10° Celsius. The lack of temporary collective shelter solutions is leading to overcrowding or to households sleeping in open air, exposing them to public health risks as well as safety and security threats, including SGBVs. According to Reuters, some remote villages, like Tinnel, are in need of essential supplies, including tents, blankets, food, water, and medicine.

Health. In the short term, basic emergency services connected to search and rescue effort, and maternal healthcare are the most imminent sectoral needs. Urgent replenishment of blood stocks is required to meet the increasing needs of patients in critical condition. Damage and losses in the health sectors have further undermined access to basic health services from the affected population, especially in rural and mountain communities. Before the event, Morocco registered a persistent shortage of human resources, with only 7.2 doctors per 10,000 inhabitants on average, and maternal mortality rates that remained 2.5 times higher in rural areas than in urban areas, with neonatal mortality accounting for 75% of infant mortality. According to CNN, a makeshift field hospital has been set up near Asni, staffed with doctors and nurses to provide medical care to earthquake survivors.

WASH. Access to safe drinking water and safe and adequate sanitation facilities are a priority need for rural and remote communities as well as for internal displacement hotspots. Lack of access and demographic pressure on existing services may lead to harmful WASH practices, exposing affected populations to water-borne diseases and epidemics. According to the 2014 Census data, only 91 per cent of Moroccan households disposed of a connection to running water in urban areas, and only 38 per cent in rural areas. The access to improved sanitation follows similar patterns due to the lack of basic infrastructure: in rural areas, only 83 per cent of households disposed of sanitation facilities, and only one household out of two is connected to a septic tank (49 per cent). According to CNN, many villages, including Asni, have been severely affected, with residents facing challenges like collapsed buildings, lack of water, and disrupted daily life. According to Acaps, there is also a severe shortage of clean water, aggravated by the pre-existing lack of potable water in al-Haouz.

Food. In a context of loss of livelihood and assets, pre-crisis socio-economic duress and high inflation rates, most vulnerable groups will struggle to access sufficient quantities of quality foods in the coming months. According to WFP, 7.1 million people in the country are food insecure while poor households rely on school feeding for their children. With significant losses in terms of homes, assets and livelihoods, as well as school and education services being suspended, most vulnerable households may resort to negative coping mechanisms if not assisted. In rural areas, women generally work at very low levels in agriculture value chains, carrying out mainly basic farming activities that are not always remunerated. Among poor and vulnerable populations, gender inequalities render women particularly vulnerable to food insecurity.

Projected Outlook

In the short term, casualties are expected to increase due to the gradual search and rescue efforts of collapsed buildings. Given the scale of the devastation, this relief effort is likely to be on a large scale and require significant investment and will require time to address the main drivers of the crisis. According to CNN, many affected villagers have lost their homes and are struggling to cope with the devastation caused by the earthquake. Displaced people fear the onset of winter rain and snow in the coming weeks, which will necessitate adequate shelter and NFIs.

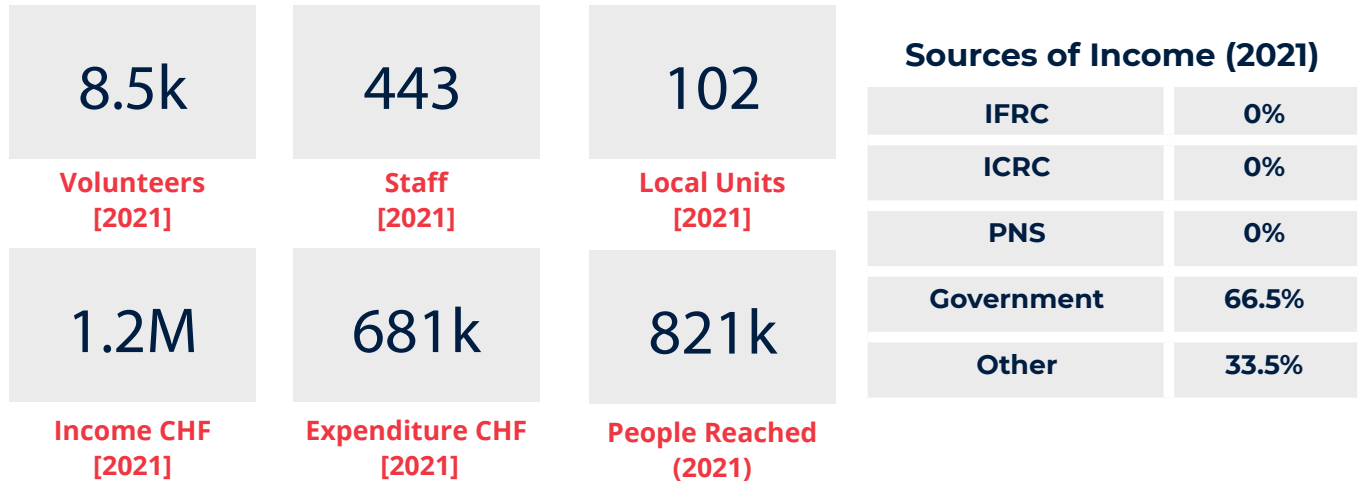
The affected population needs tents that can protect from heat during the day and the cold at night. These tents should also be suitable for the upcoming winter season (from December–February) in case people are unable to return to their homes and remain displaced, as Al-Haouz is known for its severe winter season and heavy snowfall.

According to Al Jazeera, concerns have been raised that authorities are prioritizing larger communities over the more remote villages, leaving some with the dead still buried under the rubble. The earthquake could significantly impact village life, as more people may move to Marrakesh, and new building regulations may change traditional ways of life.

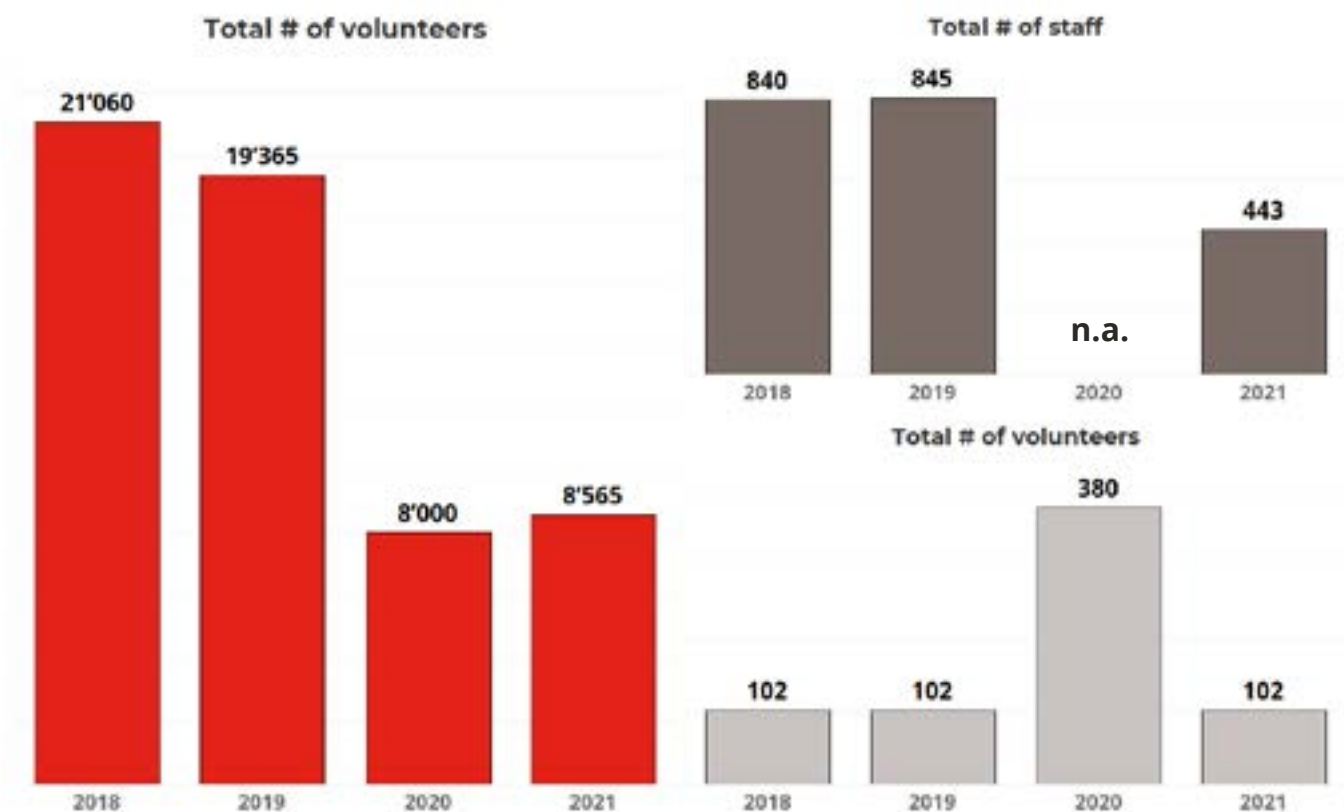
ANNEX A - MOROCCAN RC AT A GLANCE

The Moroccan Red Crescent is a Moroccan association founded in 1957 and recognized as a public institution on 24 October of the same year. The MRC was recognized by the ICRC in 1958 and accepted as a full member of the International Federation of Red Cross and Red Crescent Societies.

Key FDRS indicators



Last 4 years trends



ANNEX B - DISASTERS OVERVIEW

MOROCCAN RC ACTIVE APPEALS

0	0	-	-	-
Active EAs	Active DREFs	# of targeted people	Total amount of funding (CHF)	MED cost per beneficiary (CHF)

2000 - 2023 Trends

EAs	1	30k	2.8M	114%	94
	# of appeals	MED targeted people	MED funding requested (CHF)	MED appeal coverage	MED cost per beneficiary (CHF)
DREFs	9	7.5k	195k	100%	23

DREFS AND EMERGENCY APPEALS IN THE REGION

3	9M	7.2%	12	435k
Active EAs	MED funding requested (CHF)	% of funding coverage (hard pledges)	Active DREFs	MED funding requested (CHF)

