

**280,000**  
PEOPLE AFFECTED IN  
GUERRERO AND  
OAXACA STATE.

**40,000**  
HECTARES OF CROPS  
DESTROYED

AT LEAST  
**39,000**  
HOUSES DAMAGED IN  
GUERRERO STATE

**29**  
PEOPLE DEAD IN  
GUERRERO STATE

### CRISIS IMPACT OVERVIEW

- By 29 October 2024, 11 cyclonic events in the Pacific and 15 tropical cyclones in the Atlantic had entered Mexico since the start of the year. These severely affected coastal states, causing deaths, injuries, and long-term damage to service facilities, shelters, and livelihoods (SMN 29/10/2024; Milenio 16/10/2024).
- The Pacific Coast of Mexico received the first landfall of Hurricane John on 23 September and then the second landfall on 27 September (El País 04/10/2024; OCHA 27/09/2024). John was upgraded from a tropical storm into a Category 3 hurricane on 23 September, with winds of about 193km/h when it made landfall. The storm eventually dissipated and, on 30 September, was downgraded into a tropical storm. By 18 October, John had moved out of the country (El País 04/10/2024; NYT 23/09/2024). A total of 950mm (37in) of rain fell across parts of Guerrero, with similarly extreme rainfall in neighbouring Oaxaca and Michoacan states (The Watchers 02/10/2024). The affected states are no longer in a state of emergency, but the damage persists, and people continue to report related impacts.
- The most affected states were Guerrero, Michoacan, and Oaxaca, including the port of Acapulco, which Hurricane Otis also severely affected in October 2023 (El País 04/10/2024; OCHA 27/09/2024). In Guerrero, Hurricane John killed at least 29 people and affected 270,000 (LADEVI 14/10/2024; EFE 29/09/2024). The hurricane also affected an estimated 10,100 people in Oaxaca, while the exact number in Michoacan was unknown (Infobae 27/10/2024).
- Heavy flooding and landslides resulting from the hurricane affected at least 730,000 children and adolescents (UNICEF 03/10/2024). Most of the people affected had also faced the impacts of past hurricanes, including Hurricane Otis in 2023.
- Hurricane John affected 29 municipalities in Guerrero (including 39 urban and 18 rural neighbourhoods in Acapulco), 22 in Oaxaca, and at least eight in Michoacan (OCHA 30/09/2024; Excelsior 04/10/2024). By 4 October, the hurricane had damaged around 39,000 houses in Guerrero state alone (Excelsior 04/10/2024).

- Hurricane John caused flash floods, landslides, and strong winds, which blocked major roads and damaged essential infrastructure. Following the hurricane, access to water has been limited. It has also disrupted education in over 200 schools, and communities have lost essential crops and livelihoods (El País 04/10/2024; La Jornada 12/10/2024). On 16 October, protests about the lack of water and electricity were reported in Acapulco (Reforma 16/10/2024).
- While the Pacific Coast was bracing for the impacts of Hurricane John, Hurricane Milton affected the Atlantic Coast between 7–9 October, causing localised flooding, storm surges, infrastructure damage, and one reported fatality in the Yucatan Peninsula (OCHA 11/10/2024).
- In the INFORM Risk Index, Mexico has a score of 5.0/10, indicating high vulnerability and exposure to natural hazards, particularly cyclones and earthquakes, as well as human-induced hazards, such as armed violence (EC accessed 18/10/2024).

### ANTICIPATED SCOPE AND SCALE

- John was the tenth tropical cyclone of the 2024 storm season in the Pacific (usually from May–November). The official forecast estimates between 15–18 cyclones and storms for 2024, which means several more are expected before the end of the season (El País 15/05/2024 and 27/09/2024).
- On 20 October, Tropical Depression Nadine (formerly Cyclone Quince) made landfall in southern Mexico over the states of Chiapas, Oaxaca, and Tabasco and, by 24 October, it became the Category 4 hurricane Kristy that was going through the Pacific ocean (WAR 24/10/2024; TSR accessed 20/10/2024). Concurrently, by 29 October, Kristy and Oscar hurricanes had also affected several Mexican states, and both have the potential to extend throughout southern Guerrero state (SMN 29/10/2024). The recurrence of storms and hurricanes across the country constrains the recovery of affected communities and is likely to overwhelm the government response capacity.
- Tropical Depression Nadine has caused floods and landslides that have claimed at least three lives, and it could keep causing flooding, waterlogging, and infrastructure damage in the southeast (The Watchers 22/10/2024; SMN

20/10/2024; Excelsior 18/10/2024). The seasonal forecast for the year anticipated above-average cyclone activity in the Atlantic for 2024, with intensities 50% higher than in previous years (Milenio 16/10/2024).

- The Mayor of Guerrero has announced the need to relocate at least 200 homes from certain neighbourhoods in Acapulco affected by John that are increasingly facing the impacts of storms and riverine flooding (MN 14/10/2024; El Sur 14/10/2024).
- Between November 2024 and January 2025, a moderate probability of above-normal precipitation is anticipated in southeastern Mexico, including Campeche, Oaxaca, Quintana Roo, Tabasco, and Veracruz (IRI accessed 14/10/2024; WMO accessed 20/10/2024). This may trigger additional flooding and inhibit recovery and mitigation in the hurricane-affected states.
- Before Hurricane John, there were already 80,900 cases of dengue countrywide, with the highest caseloads in Guerrero, Jalisco, Morelos, Nuevo Leon, and Veracruz (Govt. Mexico 18/10/2024; El Sur 12/10/2024). The floods that resulted from Hurricane John have produced stagnant water, likely increasing the incidence of dengue and other vector-borne diseases.
- Global warming is leading to more frequent and intense hurricanes and storms, which come with stronger winds and heavier precipitation (WWA 09/10/2024). Communities along the Pacific Coast in Chiapas, Guerrero, Michoacan, and Oaxaca, as well as areas on the Atlantic Coast, particularly Quintana Roo and Veracruz, are likely to face these heightened impacts, which are also likely to increase permanent and temporary displacement.
- People in the affected states, especially Guerrero, rely on tourism for income. The temporary closure of roads and the airport, as well as damage to hotels and restaurants, has affected the sector, compromising people's livelihoods (Animal Politico 16/10/2024; Infobae 30/09/2024). The anticipated arrival of more cyclonic events until the end of November will further threaten the sector, compelling the population to consider relocating to other states or depend on humanitarian and government assistance during recovery.

## Humanitarian constraints

- Hurricane John-related floods and road damage constrict access to certain remote areas, challenging the collection of information and resulting in the possible underreporting of the number of people affected. By 1 October, the landslides and rising rivers had cut off roads and isolated at least 30 communities of Oaxaca (OCHA 30/09/2024). Until mid-October, access to these communities remained limited (El País CR 14/10/2024).
- Trucks have not been able to enter the affected areas because of degraded and poor road conditions, hindering aid provision to the region. The Government has started using helicopters to provide aid in remote areas (NMás 13/10/2024; Infobae 13/10/2024).

- Armed groups often have territorial control over several areas, and insecurity in different states is likely to challenge the government and humanitarian response (Imparcial 23/10/2024; InSight Crime 30/08/2024).
- The first few days of the hurricane affected communications services, hampering the government and humanitarian response (NMás 02/10/2024). Although communication has been restored, most of the information available is about Guerrero state, with little available about the communities in other states.

## CRISIS IMPACTS

### Health/WASH

- The hurricane damaged two health facilities in Guerrero, prompting the Government to set up temporary centres and deploy 3,300 health professionals to assist existing hospitals and support patients with respiratory illnesses (Informador 05/10/2024). Hurricane John has produced floods and stagnant pools of water, which increase the risk of insect-borne and waterborne diseases, such as cholera and dengue. Exposure to raw sewage and other hazardous materials mixing with floodwaters could pose a severe health threat (Crisis24 30/09/2024). People living in informal settlements or poor housing are more exposed and vulnerable to waterborne diseases. By 12 October, Guerrero had reported 30 fatalities and around 5,600 cumulative cases of dengue. The uptick in cases is a result of the rain creating an ideal environment for the proliferation of mosquitos (El Sur 12/10/2024).
- Acapulco has been one of the most affected cities. On 16 October, people were reported to be protesting the lack of water and waste collection in the city (Forbes 08/10/2024; Reforma 16/10/2024; El País 04/10/2024). Water in Acapulco was already scarce even before the recent hurricanes and storms, whose impact includes the contamination of water sources. This leads to issues related to diseases, risk of dehydration for lacking enough drinking water, and lack of irrigation for crops. All of these has an immediate and long-term effect in communities (Infobae 28/10/2024). At the same time, difficulties resulting from floods and road damage in accessing the main Acapulco landfill are constraining waste collection, affecting hygiene and sanitation (El Sur 30/09/2024).

### Food security

Hurricane John affected 20,000 hectares of crops in Oaxaca and around 21,000 hectares of crops in Michoacan, mostly maize, beans, squash, pumpkin, peanut, and hibiscus, threatening farmers' livelihoods and access to staple food (La Jornada 09/10/2024; Milenio YouTube 01/10/2024). In the longer term, the impact of hurricanes, such as the destruction of crops, farm equipment, and infrastructure, can lead to shortages in the food supply chain.

## Shelter

There are around 300 temporary shelters in Guerrero; by 14 October, 48 remained active (NMás Facebook 14/10/2024; Infobae 24/09/2024). During the onslaught of Hurricane John, more than 10,000 people had to evacuate from Acapulco because of floods and infrastructure damage. By 4 October, there were still 1,645 people staying in the shelters (El País 04/10/2024). In Guerrero state, flooding destroyed or isolated around 39,000 houses (Excelsior 14/10/2024; El País 04/10/2024). The most affected people were those who were already socioeconomically vulnerable, living in neighbourhoods with little access to services and exposed to landslides and environmental hazards (EFE YouTube 19/10/2024). Some of the people in these areas remain exposed and are more likely to lose shelter with the oncoming storms and hurricanes.

## Education

Hurricane John disrupted education in Guerrero state, where it only resumed on 14 October. It affected at least 200 schools, many of which were still recovering from the 2023 impacts of Hurricane Otis. Floods continue to affect some schools, requiring some children to rely on online classes and hindering education for many, especially those from rural areas who lack access to the internet and computers (El Sol de Acapulco 14/10/2024). Around 730,000 children and adolescents live in the areas affected by heavy flooding and landslides (UNICEF 03/10/2024).

## Livelihoods

- Hurricane John affected around 63,000 small businesses, 200 hotels, and 100 restaurants in Guerrero, many of which had not yet recovered financially from the damage caused by Hurricane Otis in 2023. Regional authorities estimate the damage to exceed USD 1 billion. Tourism is one of the main economic sectors in Guerrero and other coastal states of Mexico (La Razón 17/10/2024; Forbes 16/10/2024). John has affected access to employment for thousands of people, who are asking to be registered for government assistance given the reduction of their incomes or destruction of their businesses (Animal Politico 16/10/2024; NMás 16/10/2024).
- Activities related to agriculture, tourism, and other businesses are likely to decrease in the coastal areas of Guerrero, Michoacan, and Oaxaca as hurricanes continue to affect the area during future rainy seasons (UMAD accessed 18/10/2024).

## Displacement

- Environmental hazard exposure can displace people or force them to change their livelihoods temporarily or permanently, mostly farmers and people dependent on agriculture who have lost their incomes and way of living (El Sol de Acapulco 28/10/2024; El Sur 04/10/2024). In 2023, Hurricane Otis displaced 185,000 people, the most displacement resulting from an environmental hazard in Mexico (El Sur 15/05/2024).

## Impact on critical infrastructure

- Hurricane John caused landslides that affected several highways, including those connecting the municipalities of Alcozauca, Cochoapa, Iliatenco, Malinaltepec, Metlatonoc, Olinala, and Xalpatlahuac, all located in the mountains of Guerrero (Milenio 14/10/2024).
- On 23 September, the hurricane affected the electricity infrastructure and caused power outages, affecting more than 260,100 customers. Reports indicate that energy has been restored, but disruptions are likely in the coming weeks because of continuing rain (Crisis24 30/09/2024).
- Contamination and damage to sewage facilities and aqueducts affected water access, although by 27 October, the service was completely restored (Govt. Mexico 27/10/2024).

## DRIVERS OF THE CRISIS

### Hurricane John and other cyclonic events

- Mexico's hurricane season runs from May–November, with most storms developing between July–October. The country faces a double exposure to hurricanes and cyclones from both the Pacific and Atlantic Oceans (Govt. Mexico 16/05/2024). The Mexican National Meteorological Service reported that John made landfall with Category 1 winds (over 119km/h) and later turned into a Category 3 hurricane (BBC 27/09/2024). The National Oceanic and Atmospheric Administration predicts an 85% chance of an above-normal hurricane season in the Atlantic, with only a 10% chance of a near-normal season (NOAA 23/05/2024).
- Some communities affected by Hurricane John are also expected to face additional storms in the coming month, including Hurricane Nadine, which, by October 29, was in Belize. This situation hampers the communities' ability to recover between storms (Milenio 28/10/2024).

## Climate change

Human-induced global warming is leading to more intense and frequent storms, fuelled by warmer waters and higher moisture levels in the air. These are expected to result in hurricanes and cyclones producing heavier rainfall and stronger winds, which will increase the risk of coastal flooding and storm surges (UNAM 03/10/2024; Climática 11/07/2024; NASA 01/06/2022; NYT 09/10/2024). Sea level rise also leads to more damaging coastal storms and storm surges once storms make landfall. These storms are lingering for longer periods near the coast, leading to more rainfall and rain-driven flooding (NASA 06/06/2019).

## COMPOUNDING/AGGRAVATING FACTORS

### High poverty rates

- Based on government data, 60% of the population of Guerrero state experiences poverty (CEMEES 20/09/2024). The population in this area has also suffered from previous hurricanes and tropical storms, such as Otis in 2023, affecting their livelihoods, preventing them from recovering economically, and further heightening their vulnerability to natural hazards (NYT 23/09/2024; El Economista 01/11/2023).
- According to the Mexican Government, 28.7% of the population in Oaxaca is in moderate poverty, and 9.33% is in extreme poverty (Govt. Mexico accessed 29/10/2024). In Michoacan, around 42% of the people are in moderate poverty (Govt. Michoacan 11/08/2023). Poverty conditions reduce people's coping capacity to hurricanes and climate hazards.
- Oaxaca is one of the most ethnically diverse regions of Mexico. There are approximately 19 Indigenous and Afro-Mexican communities primarily located in rural areas, which can be challenging to reach given inadequate road infrastructure. These areas have limited economic resources and little access to essential services, reducing their capacity to cope with climate hazards (SIC accessed 22/10/2024). Indigenous Peoples have been proven to be at greater risk in the face of natural hazards mainly because of historical oppression causing significant health and economic disparities (McKinley et al. 08/09/2019).

### Access to essential services

- Access to services in the affected states of Guerrero, Michoacan, and Oaxaca may be restricted in some areas, affecting communities already vulnerable to climate hazards. Only 13% of the population in Oaxaca, 7% in Guerrero, and 13% of the households in Michoacan can access water every day (Infobae 01/04/2024; La Jornada de Oriente 20/10/2024).

- Oaxaca experienced limited access to water throughout 2023, with several neighbourhoods in the city of Oaxaca de Juárez going 50 days without water (La Data Cuenta 23/06/2024; Animal Politico 21/03/2024).. Water shortages have persisted because of high temperatures that have caused drought and depleted wells, as well as the poor infrastructure of the leaking aqueduct system (Forbes 28/03/2024.; Animal Politico 21/03/2024). In July 2024, a large part of the city only received 195L per second, far below the required 1,100L per second according to Mexican standards. Such a shortage forces residents to purchase drinking water, a challenge particularly for low-income communities (La Data Cuenta 23/06/2024; Animal Politico 21/03/2024). Water contamination and damage to pipelines and aqueducts during hurricanes further aggravate this scarcity.
- Pre-existing issues with water access also affect the rural areas of the state of Guerrero. Even prior to Hurricane John, most women spent up to seven hours a day carrying water from community wells given the lack of aqueducts to direct water to their homes. At the same time, many of these communities are still recovering from Hurricane Otis (El País 16/06/2024). The persistent lack of essential services in the area aggravates the material losses from Hurricanes Otis and John.

### Insecurity

- Insecurity in the state affects the mobility and livelihoods of people, amplifying the disruptions that result from hurricanes. The state of Guerrero reports high insecurity levels because of the presence of various criminal groups. Mayor Alejandro Arcos of Chilpancingo, one of the municipalities affected by Hurricane John, was found dead on 6 October, three days after the assassination of Francisco Tapia, the newly elected secretary-general of the city council. Drug-trafficking groups opposing politicians' policies are suspected to be responsible for these murders (BBC 07/10/2024; Crisis24 07/10/2024; InSight Crime 13/02/2024). Insecurity also constrains freedom of movement, as well as access for the Government and humanitarian organisations.
- In Michoacan and Oaxaca, there are also high levels of insecurity because of the presence of armed groups that use the Pacific ports for narcotraffic and other illicit activities (Imparcial 23/10/2024; InSight Crime 30/08/2024). The territorial control of armed groups over several areas is likely to challenge the government and humanitarian response.

## FUNDING AND RESPONSE CAPACITY

- Federal, state, and municipal governments, the Armed Forces, the Mexican Red Cross, the private sector, civil society, and other government institutions have been coordinating the response to the hurricanes (OCHA 30/09/2024). The Government has provided safe drinking water and staple food for families (Govt. Mexico 09/10/2024).
- National and international NGOs, such as World Vision and UN agencies, are also providing support for the affected people (UNICEF 03/10/2024).

## HURRICANE JOHN IMPACT ON THE PACIFIC COAST

Map 1. Impact of Hurricane John across the Pacific Coast of Mexico



Source: CNN (26/09/2024)