

The impact of cyclones Judy and Kevin



KEY FIGURES

80%

(250,000+) OF THE POPULATION AFFECTED

5,100

PEOPLE IN EVACUATION CENTRES

26%

OF THE ARTERIAL ROAD NETWORK INACCESSIBLE

CRISIS IMPACT OVERVIEW

Between 1–3 March 2023, a rare double cyclone event occurred involving two category 4 tropical cyclones, Judy and Kevin, hitting Vanuatu (OCHA 09/03/2023; IFRC 04/03/2023; OCHA/UN RC Fiji 09/03/2023). The cyclone contained destructive force winds with an average speed of 150kph, with peak gusts reaching up to 220kph (IFRC 10/03/2023; The Guardian 04/03/2023). Heavy rains, thunderstorms, and rough seas accompanied these winds (IFRC 09/03/2023).

Early estimates by local government authorities indicate that the cyclones have affected approximately 250,000 people, equivalent to more than 80% of the population (OCHA 13/03/2023; National Disaster Management Office Facebook 07/03/2023). The provinces most affected by the cyclones are Tafea and Shefa, where Port Vila, the capital and most populated city, is located. Other affected provinces are Malampa, Penama, Sanma, and Torba (Govt. Vanuatu 08/03/2023). On 2 March, the Republic of Vanuatu declared a six-month state of emergency across the country as a result of the severe impact of the cyclones (National Disaster Management Office Facebook 02/03/2023; RNZ 03/03/2023).

The Prime Minister of Vanuatu has requested the assistance of the Pacific Humanitarian Team, which comprises UN agencies, INGOs, and the International Federation of Red Cross and Red Crescent Societies (IFRC). Vanuatu has also requested the assistance of the EU Civil Protection Mechanism for aerial capacities and sea vessels for possible evacuation and aid delivery (OCHA/UN RC Fiji 09/03/2023; ECHO 08/03/2023; OCHA 09/03/2023). UN and Pacific member states have deployed personnel and equipment for humanitarian assistance and assessments (ESCAP 09/03/2023). The recovery cost of the damage caused by the cyclones is estimated at USD 50,000,000 (ECHO 13/03/2023; UNICEF 13/03/2023).

ANTICIPATED SCOPE AND SCALE

- Although Vanuatu is experienced in responding to cyclones, a double event such as the March cyclones is extremely rare and may be unprecedented (BBC 03/03/2023). The South Pacific tropical cyclone season would typically last until the end of April (BOM 12/10/2022). Until then, new tropical cyclones, even if smaller in magnitude, could worsen existing needs.
- March is historically the month with the highest rainfall in Vanuatu (WB accessed 13/03/2023). Further rains could particularly affect the displaced population and delay infrastructure reconstruction. The rains in Vanuatu pose a high risk of landslides because of the steepness of the ground in several parts of the island. During past floods, subsequent landslides worsened property damage and displacement (ADPC/UNDRR 2022; Think Hazard accessed 12/03/2023).
- Most communities in the worst hit provinces rely on rivers for their water supply. These rivers are susceptible to pollution from untreated run-off and mud, meaning a heightened risk of outbreaks of waterborne diseases. The breeding season for mosquitoes in Vanuatu is also from November–April, increasing the risk of the spread of endemic insect-borne diseases, such as dengue and malaria (IFRC 09/03/2023; UNICEF 06/03/2023).

HUMANITARIAN CONSTRAINTS

- Phone and internet reception is severely disrupted, affecting the facilitation of assessments that are still in their early stages. The two telecommunication providers in Vanuatu are either disabled or have limited reception and services across the country (UN 09/03/2023; ECHO 08/03/2023; ADRA 07/03/2023; ESCAP 09/03/2023; IFRC 09/03/2023).
- The population in Vanuatu is scattered among numerous islands with limited transport connectivity. Five airports are being repaired, and at least one quarter of the arterial road network is inaccessible (OCHA 13/03/2023). The country's geographical isolation from responding nations, their limited financial capacity, and damage to physical infrastructure pose major challenges in delivering essential services (WHO 01/01/2017).

FUNDING AND RESPONSE CAPACITY

- Pacific Humanitarian Team
 - UN agencies
- Several INGOs and the IFRC
 - EU Civil Protection Mechanism
- Pacific member states



CRISIS IMPACTS

Shelter

There are approximately 5,100 people in evacuation centres. Assessments are still underway, but the high-level destruction of houses made from local materials is likely (ADRA 07/03/2023; UNOSAT 08/03/2023). There are more people staying in shelter centres than those sheltering in place, indicating the significant level of damage to houses (IFRC 09/03/2023). Tarpaulins for shelter are among the immediate relief items expected to be distributed by response agencies (IFRC 02/03/2023 and 09/03/2023). The likelihood of overcrowding in evacuation centres may increase the chance of disease outbreaks, including waterborne diseases. The crowded conditions may also result in the spread of respiratory illnesses, such as COVID-19 and influenza (IFRC 09/03/2023).

Livelihoods and food security

Significant foliage and crop damage are expected because of flooding and wind force, and these affect the livelihoods and food security of people in Vanuatu (ADRA 07/03/2023; IFRC 09/03/2023). An estimated 80% of the population assessed in 2019 depends on subsistence agriculture (PAFPNet accessed 13/03/2023). During previous cyclones, commodities such as rice, canned fish, and noodles were distributed to the affected people. These commodities will likely be a recurring need in the current response (WFP 30/04/2015).

Youth and education

Around 58,000 children in Vanuatu are in need of humanitarian assistance because of the cyclones (ADRA 07/03/2023; STC 05/03/2023; UNICEF 06/03/2023). The cyclones have damaged 28 schools (around 10% of the schools in the country), which are undergoing repairs, and an additional 16 (5% of the total) are being used as evacuation centres (OCHA 13/03/2023). The loss of homes and schools can disrupt the education of children over the longer term. Preschool support and child protection services will be needed to help children regain a sense of normalcy (UNICEF 06/03/2023; STC 05/03/2023).

Health

Health facility assessments are still being conducted, but pharmaceuticals and medical supplies are likely needed in the affected areas, as the cyclones have also damaged medical centres and hospitals. Across the country, there have been reports of cases of watery diarrhoea and leptospirosis, as well as injuries from flying debris (OCHA 13/03/2023). Reduced access to healthcare facilities and essential medication is expected (IFRC 09/03/2023; WSWS 09/03/2023). In evacuation centres, there are unvaccinated children, pregnant women, and people with medical conditions, such as scabies, yaws, and diarrhoeal diseases (OCHA 13/03/2023).

Increasing urbanisation in Vanuatu is leading to urban overcrowding, leading to unfavourable environmental conditions aggravated by the impact of cyclones. This development could increase the emergence of diseases and other health problems and heighten existing health challenges for a country already facing the public health burden of increasing rates of non-communicable diseases, emerging health threats from climate change, and illnesses from communicable diseases (WHO 01/01/2017).

WASH

The cyclonic winds have potentially disrupted WASH services for approximately 150,000 people (OCHA 13/03/2023). No running water is available in the main affected areas (UNICEF 13/03/2023). The main affectations are related to access to power, consistent water supply, and safe drinking water. National and local water systems need repair and restoration (STC 10/03/2023; UNICEF 06/03/2023). The contamination of water resources because of flooding has been observed, increasing the possibility of vector-borne diseases (IFRC 09/03/2023 and 02/03/2023). People in evacuation centres have reported limited access to clean water (OCHA 13/03/2023).

IMPACT ON CRITICAL INFRASTRUCTURE

As at 13 March, 28 schools were undergoing repairs because of damage to their infrastructure and 16 were being used as evacuation centres (OCHA 13/03/2023). As at 10 March, some businesses were closed, and power outages and communication challenges remained across the country (IFRC 09/03/2023; OCHA 09/03/2023). As at 3 March, many roads along the north-to-south path that the cyclones crossed through the islands were flooded (BBC 03/03/2023). Power outages and damage to communication systems are causing connectivity problems, potentially hampering aid delivery and the development of accurate needs and damage assessments (IFRC 09/03/2023 and 02/03/2023; OCHA 13/03/2023). The cyclones also damaged 80% of the communication networks in the country (New Zealand Red Cross 13/03/2023).



DRIVERS OF THE CRISIS

Rainy season

Vanuatu is located in the Southwest Pacific, in an area frequently hit by tropical cyclones. The country typically receives two to three cyclones during the cyclone season, which normally runs from November–April ([VMGD accessed 12/03/2023](#)). It has one of the highest disaster risk ratings in the World Risk Index, driven by natural hazards such as cyclones, landslides, and coastal flooding ([CBM et al. 08/09/2022](#)).

COMPOUNDING/AGGRAVATING FACTORS

Earthquakes

Vanuatu is located on top of what is called the Ring of Fire and experiences active volcanic and seismic activities ([WHO 01/01/2017; ESCAP 09/03/2023](#)). If an earthquake were to occur in the near future, it may lead to increased landslides and limit response capacity ([ADPC/UNDRR 2022; Think Hazard accessed 12/03/2023](#)). In the past, multiple natural disasters happening at the same time hampered the delivery of assistance to people affected ([The Guardian 17/03/2015 and 25/04/2018](#)).

Climate change and resilience capacity

Because of its geographical location, the nature of its soils with high seismic and volcanic activity, and climate change, which has increased annual wind speeds (leading to more cyclones), Vanuatu is one of the most disaster-prone countries in the world ([ESCAP 2021; WB 2013](#)). In fact, it is one of the countries incurring the highest costs from natural disasters at about USD 1.1 billion. According to some projections, this figure will increase to USD 1.4 billion in a worst-case scenario. This means Vanuatu could lose about 20% of its annual gross domestic product responding to natural disasters ([ESCAP 09/03/2023](#)). Disasters of the magnitude of the two recent cyclones could accelerate this process and weaken the country's capacity to respond to future events, which are likely to continue occurring.

Dependency on subsistence farming

Around 80% of the population in Vanuatu depends entirely on subsistence agriculture, while the remaining population (mainly in urban areas) relies on products from local market centres for sustenance ([PAFPNet accessed 13/03/2023](#)). The cyclones' impact on subsistence farming will affect people's ability to generate income and basic needs, especially for women who are highly dependent on subsistence farming for livelihoods ([GFDRR/Govt. Vanuatu 31/03/2015](#)).

HUMANITARIAN RESPONSE

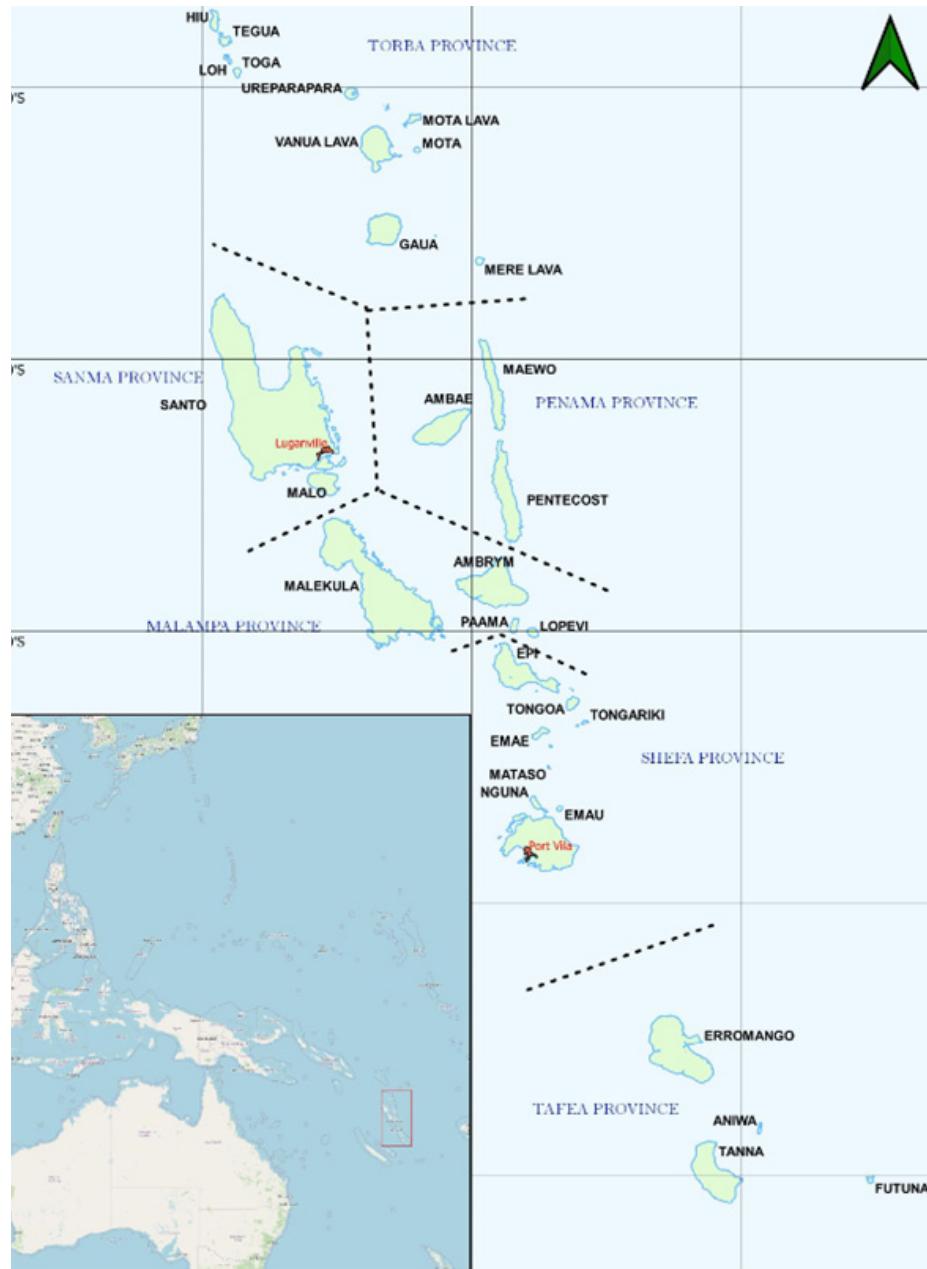
National

There is a Pacific Humanitarian Team comprising UN agencies, INGOs, and the IFRC working closely with the Vanuatu National Disaster Management Office and other government entities ([OCHA 09/03/2023](#)). The National Disaster Management Office is coordinating assessments in affected areas. As at 13 March, all the rapid assessments coordinated by national institutions in the two most affected provinces had been completed, while rapid assessments in less affected provinces were still continuing ([Gov't Vanuatu 12/03/2023](#)).

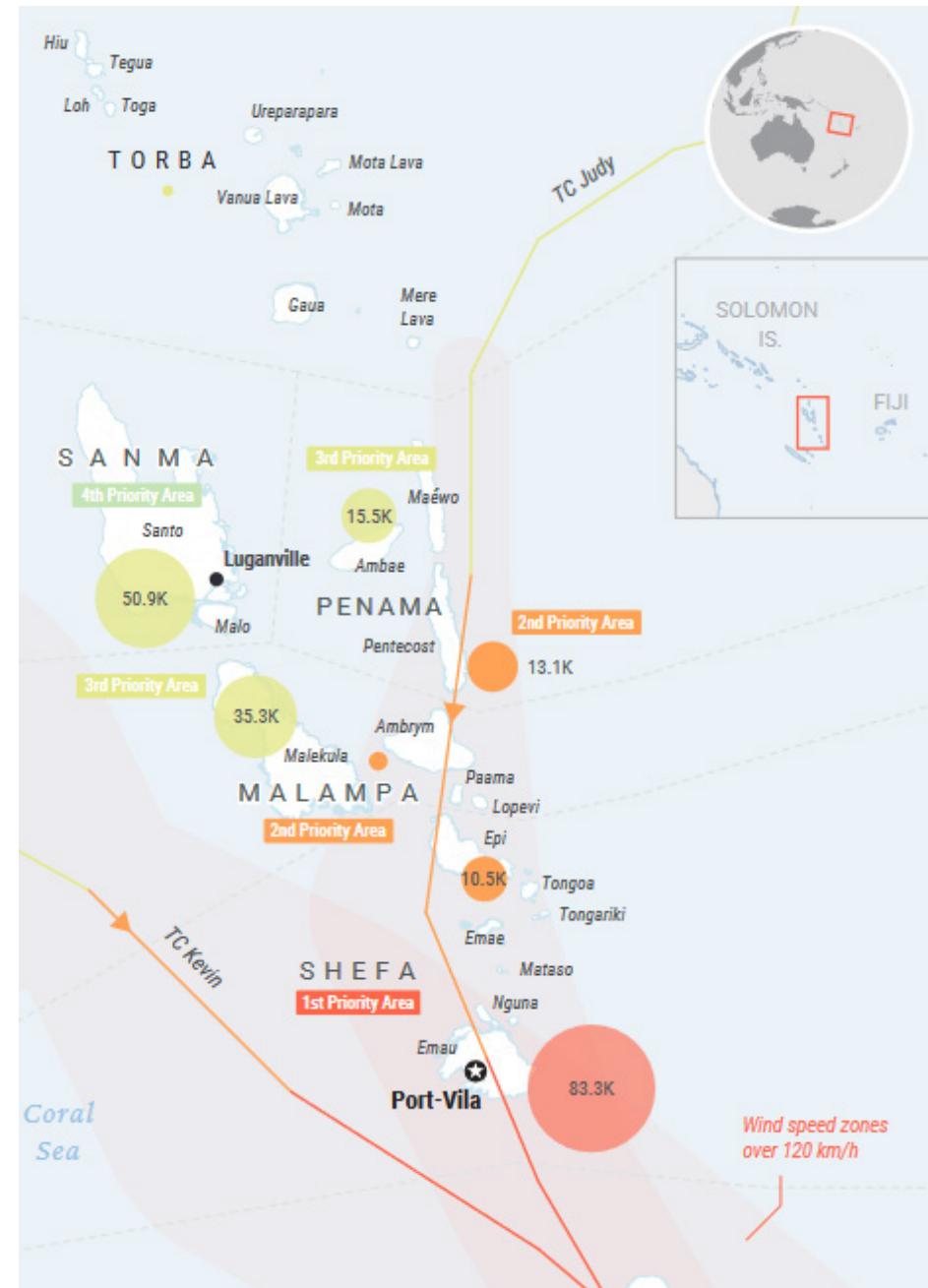
International

The UN and Pacific member states have deployed personnel to coordinate humanitarian assistance in Vanuatu ([ESCAP 09/03/2023](#)). The humanitarian response has benefited from the distribution of some pre-positioned items ([OCHA 09/03/2023](#)). Australia, France, and New Zealand have sent planes with humanitarian assistance and have arranged for reconnaissance and coordination flights between the islands ([OCHA 13/03/2023](#)).

VANUATU AND THE PATH TAKEN BY CYCLONES JUDY AND KEVIN



Source: Govt. Vanuatu (08/03/2023)



Source: OCHA (09/03/2023)