

Pacific Damage and Loss (PDaLo)

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FACTSHEET

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Pacific Islands are highly exposed to adverse natural events (including tropical cyclones, earthquakes, volcanic eruptions, and tsunamis), which can result in disasters affecting their economic, human, and physical environment. In turn, this has an adverse impact on their long-term development agenda.

The Pacific Damage and Loss (PDaLo) information system holds information on 1183 hazardous events (see Figure 1) that have occurred and caused damage and loss in the Pacific between 1567 and 2013. These events have resulted in over 19,527 fatalities (see Figure 2). The estimated economic cost of these events amounts to USD3.3 billion. Note that this number is the reported sum of the events at the time they occurred and does not reflect inflation. Consequently, the real value of inflation is likely to be far higher.

The Pacific region's geographic composition and location in the "Pacific ring of fire" makes it susceptible to many hazards. Events reported most frequently include 386 Tropical Cyclones (TC), 229 Tsunamis (TS), 198 Earthquakes (EQ), and 112 Floods (FL) (see Figure 1). This equates to 78 per cent of the total events reported.

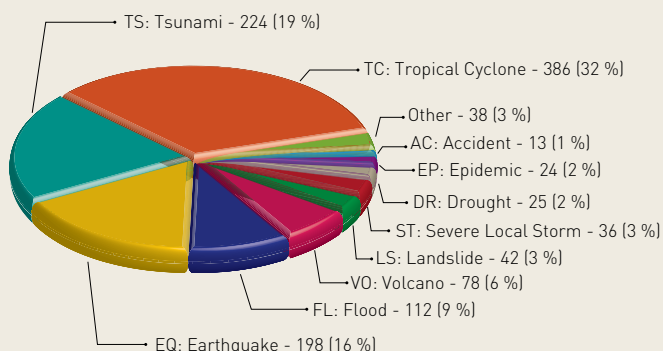


Figure 1: Data Cards

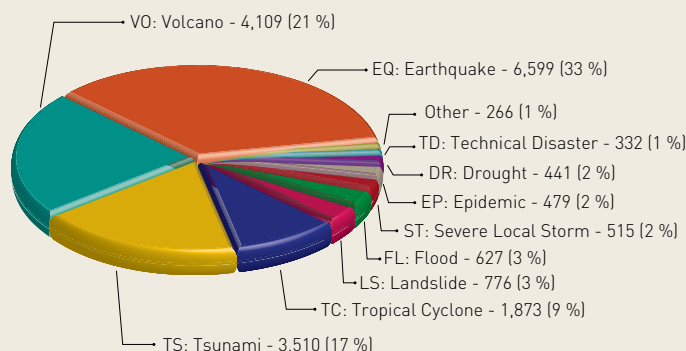


Figure 2: Deaths

The event 'Tropical Cyclone' accounts for the highest proportion of recorded events and, not surprisingly, indicates a significantly high number for 'Affected' population, which accounts for 43 per cent (see Figure 3). Over the recorded years, Tropical Cyclones in the Pacific region have affected over 6.7 million people and have caused almost 2,000 deaths. In addition, they have caused damage and, in some cases, destruction of 139,367 homes (see Figure 4).

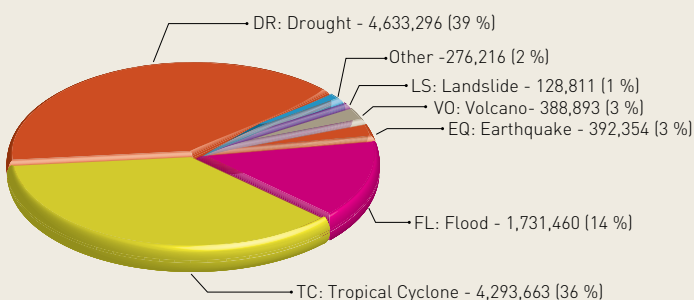


Figure 3: Affected Population by Event 1567-2012

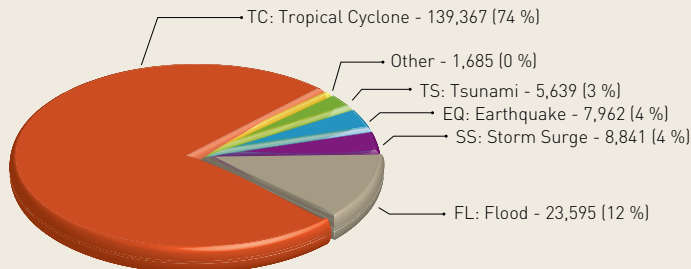


Figure 4: Houses Destroyed and Damaged

Earthquakes account for the highest incidents of death, 33 per cent of total fatalities yet account for only 16 per cent of the events recorded. This demonstrates the catastrophic impact that earthquakes can have on the resident population.

Earthquakes have affected approximately 570,000 people in the region with associated damage and destruction affecting 7,962 homes.

Although a relatively low number, the 25 drought events recorded have carried high losses with a total estimated 4.6 million people affected, more than double the amount of people affected by floods. Droughts carry an estimated total economic loss of USD 155 million (see Figure 5); however, only four droughts recorded losses, raising the average cost of droughts to USD 39 million.

Total economic loss recorded over the period amounts to USD 3.3 billion, which generates an average loss of USD 2.7 million per event. However, not all events captured in the database have economic loss attributed. Only 388 of the 1183 (33 per cent) events recorded provide detailed values of economic loss. This increases the average economic loss to USD 8.4 million, demonstrating the importance of capturing costs of events.

The economic effects of a disaster may not always be captured when looking at loss associated with events; however, by capturing cost information, you can begin to estimate the impacts that events may pose to economic development. The economic losses recorded need to be addressed through a comprehensive recovery and rehabilitation plan and the records of loss provide indicative costs. Given the limited revenue streams in small islands, this can impact on the future economic development of a country.

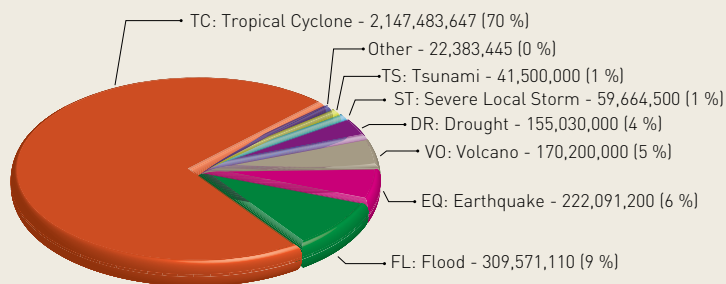


Figure 5: Economic Loss by Event 1567-2012



Highlights

- Between 1567 and 2013, the Pacific recorded 1183 events with damage and losses
- 11.8 million people in the Pacific have been affected by a disaster and there have been over 19,000 fatalities
- The most frequently reported events are: tropical cyclones, earthquakes, tsunamis and floods. Together, these events account for 78 per cent of all events reported
- Over 187,000 homes have experienced damage and destruction as a result of a disaster
- The total loss from past events is recorded at USD 3.3 billion
- Tropical cyclones account for 70 per cent of the Pacific region's total loss due to disasters.
- Although tropical cyclones have the highest level of recorded loss, earthquakes have caused the highest number of fatalities, accounting for 33 per cent of total fatalities

Important Notice

This report has been produced with the financial assistance of the European Union. The views expressed herein do not necessarily reflect the official opinion of the European Union.

Sources:

Pacific Damage and Loss (PDaLo) information system: <http://www.pdalo.net>

Pacific Disaster Net: <http://www.pacificdisaster.net>

DesInventar: www.desinventar.net

