



for the press

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Natural catastrophes 2001: no very large losses for the insurance industry /
Earthquake catastrophes at the beginning of the year in El Salvador, India, and the
USA / Numerous large typhoons in the Far East / No new loss records in the overall
balance of natural catastrophes, but individual events dramatic / Weather-related
catastrophes increasingly severe

Munich Re has produced its traditional review of natural hazard losses in 2001.
In the past year at least 25,000 people lost their lives in natural catastrophes
(previous year: 10,000). The number of natural catastrophes, with around 700
such loss events recorded, was above the long-term average (650) but well
below the record set the previous year (850). Economic losses, at about US\$
36bn, exceeded the previous year's figure (US\$ 30bn). There was an even
greater increase in insured losses, which rose from the US\$ 7.5bn of the
previous year to US\$ 11.5bn. This is around 50% of the extraordinarily high
level of 1999, whereas the economic losses totalled only around a third of the
US\$ 100bn recorded in 1999.

In the first two months of the year several earthquakes in El Salvador and India
caused major devastation. At the end of February, a further earthquake shook the
Northwest of the United States, damaging numerous buildings and industrial
installations in Greater Seattle.

The hurricane season was marked by above-average activity, with nine hurricanes in
the North Atlantic and the Caribbean, but did not result in extreme losses. In the Far

East, on the other hand, new record losses were caused by a series of large typhoons (including Nari and Pabuk).

At the end of the year unusual weather extremes were again encountered throughout the world: forest fires in Australia, for example, floods in Brazil and Turkey, snow chaos in central and southern Europe, and a typhoon in Singapore that had been considered meteorologically impossible, all of them evidence for the hypothesis long propagated by Munich Re that there is a close connection between climate change and increasing weather-related catastrophes.

Windstorms and floods dominate in the overall balance of natural catastrophes

Windstorms and floods dominate the overall balance for 2001. They account for more than two-thirds of all the events (450) and no less than 91% of the insured losses caused by natural catastrophes.

- The outstanding event of the year was the tropical storm Allison. Whilst not reaching hurricane strength, this windstorm in June caused overall losses amounting to US\$ 6bn (US\$ 3.5bn insured) in the southern United States – primarily in Texas. It thus went down in history as the costliest non-hurricane tropical storm of all time. Rain falling for days on end led to chaotic traffic conditions, especially in Houston. A total of more than 100,000 cars sank in the floods.
- Further major floods with numerous victims and large economic losses hit Australia (January), Russia (May), Poland (July), China (June), and Argentina and Algeria (both November).
- Taiwan was hit by several typhoons. Typhoon Nari, which paralysed parts of the capital Taipei in September, is the costliest windstorm catastrophe to date in the country's insurance history with insured losses of about US\$ 600m. Parts of Taipei's underground railway system were under water for weeks; the stock exchange had to stay closed for several days.

- In Kansas City, the largest hail loss of all time was reported. Roofs and cars were damaged by hailstones, some almost as big as tennis balls. The hailstorm was part of a huge storm system that sped over large parts of the United States in April. The insurance industry paid a total sum of almost US\$ 2bn.

In Europe, too, there were many severe storms and hailstorms. Thus several hundred million dollars' worth of damage was inflicted by a hailstorm in Bavaria on 3rd August.

Series of earthquakes worldwide

Earthquakes devastated large areas. At the beginning of the year, on 13th January, an earthquake in El Salvador triggered numerous landslides, which buried hundreds of people beneath them; there were 845 victims altogether. A little less than two weeks later, the earth shook in the densely populated northwest of India. In the Gujarat region numerous towns and villages within a radius of several hundred kilometres from the epicentre were flattened. A figure of 14,000 victims has been confirmed; it is to be feared that the death toll was actually much higher.

There was a stir in the United States at the end of February, when Seattle was shaken by the severest earthquake in 50 years. Numerous large industrial enterprises along the northwest coast were also affected, including the Boeing aircraft works. The insurance industry paid more than 10,000 claims with an overall volume of roughly US\$ 300m and was reminded once again – after the earthquake catastrophes of San Francisco (1989) and Los Angeles (1994) – of the enormous loss potential of this natural hazard in the west of the country.

In mid-December the earth was shaken again by a strong earthquake with a magnitude of 7.3 on the Richter Scale. Fortunately this submarine earthquake near Yonaguni Island in southern Japan did not cause any damage on the mainland.

Altogether there were 80 earthquake losses around the globe, putting a burden of some US\$ 9bn on the economies of the countries concerned; about a tenth of that amount was insured.

Other events like heat waves, droughts, and forest fires affected many countries of the world. Iran and China suffered from months of drought (lasting from March to November in each case); in Australia and the United States there were numerous forest fires, though not as dramatic as in the previous year. According to the statistics of the WMO, 2001 is – after 1998 – the second-warmest year since systematic temperature measurements began around 160 years ago, and thus the 23rd year in succession that has exceeded the average temperature for the years 1961 to 1990. "It is to be hoped that the Kyoto Protocol will soon be ratified as the first important step towards global climate protection. The course was set for this by the Seventh World Climate Conference in Marrakesh in November," said Dr. Gerhard Berz, Head of GeoRisks Research at Munich Re.

Owing to the increase in world population and insured values, especially in highly exposed areas, and owing to the vulnerability of modern conurbations with high accumulations of values, Munich Re continues to expect significantly steeper growth in insured losses from natural catastrophes than in economic losses.

The greatest and most significant burden to be carried by the insurance industry in the year 2001 was caused by terrorism. An additional major natural catastrophe loss event would have stretched the capacity of the international insurance industry a great deal further. Dr. Wolf-Otto Bauer, Member of Munich Re's Board of Management: "The WTC disaster has resulted in a greater awareness than ever before of the major losses caused by human hand. The inconceivable must now be considered by clients, insurers, and reinsurers alike. The same applies to natural hazard events as well. According to our calculations, extreme loss burdens from natural catastrophes may be even higher than the insured loss of 11th September 2001."

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Münchener Rückversicherungs-Gesellschaft

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(signed) Berz

(signed) Küppers