

Natural catastrophes and man-made disasters 1999

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Catastrophes in 1999 cause large burden for the insurance industry

According to Swiss Re's initial estimates, 52,000 people died worldwide as a result of catastrophes in 1999. The total monetary cost is estimated at over USD 65 billion, although this figure does not take account of indirect economic losses. Catastrophe losses cost the insurance industry more than USD 22 billion in 1999.*

High death toll, large economic losses

The catastrophes which are included in the *sigma* statistics for 1999 show that 52,000 people were killed by catastrophes, with natural catastrophes being responsible for more than 80% of victims. Nearly 25,000 victims lost their lives as a result of earthquake, and more than 16,000 as a result of storms. A large part of the total losses of over USD 65 billion, which was on par with the previous year's figure, is attributable to natural catastrophes. The series of catastrophes in August and September made a major contribution to economic losses: the earthquakes in Turkey and Taiwan caused total damage of USD 20 billion and USD 14 billion, respectively; Hurricane Floyd was responsible for damage totalling USD 7 billion; and Typhoon Bart for losses in excess of USD 3 billion.

An expensive year for insurers

1999 had a large impact on insurers operating in the regions affected by earthquakes and storms, as well as on international industrial insurers and reinsurers: according to initial *sigma* statistics, the losses of over USD 22 billion registered in 1999 made it the most expensive year since 1994 and the fourth most expensive in the history of insurance. Damage from earthquakes, storms and man-made disasters - such as major fires or aviation accidents - reached record figures in 1999. The only reason that the loss figures of 1989, 1992 and 1994 were not equalled was because the level of insurance in Turkey and Taiwan was modest. The trend towards high losses from natural catastrophes and man-made disasters seems to be continuing unabated.

Six billion-dollar losses

Almost half of the insurance industry's claims originated from six billion-dollar loss events. Typhoon Bart caused insured losses in Japan of approximately USD 2.5 billion, and, in the Bahamas and on the southeast coast of the US, Hurricane Floyd was responsible for around USD 2.2 billion worth of damage. The earthquake in western Turkey on 17 August caused insured losses of approximately USD 2 billion, while a series of more than 70 tornadoes in the Mid-West resulted in losses of around USD 1.5 billion. The earthquake in Taiwan and the hailstorm in Sydney each registered insured losses of approximately USD 1 billion. Of the insured losses resulting from man-made disasters totalling more than USD 4 billion, more than half were attributable to major fires and explosions. Particularly expensive events in the US were the explosions in a power station (USD 650 million), an aluminium plant (USD 275 million) and an oil refinery (USD 247 million). Aviation and space insurers, for their part, wrote losses in excess of USD 1.5 billion.

* All *sigma* losses are given at 1999 prices; the calculations include loss reports received up until early December and estimates for December 1999. *Sigma* includes natural catastrophes causing insured losses of at least USD 33.1 million.

The six most expensive insurance losses in 1999

Event	Insured losses in USD bn	As a % of non-life premiums	Total losses in USD bn	As a % of gross domestic product
Japan, 22.9., Typhoon Bart	2.5	2.70%	3.3	0.12%
US, Bahamas, 10.-17.9., Hurricane Floyd	2.2	0.60%	7	0.08%
Turkey, 17.8., earthquake (Richter scale: 7.4)	2	114.30%	20	10.10%
US, 3.-7.5., series of 70 tornadoes	1.5	0.40%	-	-
Taiwan, 21.9., earthquake (Mercalli scale: 7.6)	1	20.10%	14	5.40%
Australia, 14.4., Sydney hailstorm	1	11.60%	-	-

The five worst catastrophes in terms of fatalities in 1999

Event	Dead or missing (at least)	Injured
Turkey, 17.8., earthquake in Izmit	19,118	40,000
India, 29.–30.10., tropical cyclone in Orissa	15,000	-
Taiwan, 21.9., earthquake in Nantou	2,321	8,731
Colombia, 25.1., earthquake in Armenia	1,025	4,117
China, 15.5.–21.7., Yangtze flooding	725	-

Swiss Re's 1999 natural catastrophe losses

Losses resulting from catastrophes were higher in 1999 than in the period 1995-1998. For the reinsurance industry as a whole, 1999 saw an accumulation of medium-sized losses. No very expensive major losses were recorded in heavily exposed key markets, either for the reinsurance industry or for Swiss Re, which writes reinsurance cover against catastrophe losses in all markets.

Events in 1999 had differing impacts on Swiss Re: losses from catastrophes in the US (eg Hurricane Floyd) and Japan (Typhoon Bart) were not large enough to trigger considerable claims for the reinsurer. Swiss Re was affected by other events, such as the earthquake in Taiwan, the hailstorm in Sydney and flooding in Switzerland, to the extent of its market share. Given Swiss Re's low treaty shares in the region, the earthquake in Turkey had a comparatively low impact on the company. Overall, Swiss Re's 1999 natural catastrophe losses lie below the long-term expected average.

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