



Swiss Re's *sigma* on natural catastrophes and man-made disasters in 2012 reports USD 77 billion in insured losses and economic losses of USD 186 billion

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- **Economic losses from natural catastrophes and man-made disasters reached USD 186 billion in 2012**
- **Insured losses amounted to USD 77 billion, making 2012 the third most costly year on record**
- **Weather events in the US dominated insured losses**

Zurich, 27 March 2013 – Swiss Re's latest *sigma* study reveals that natural catastrophes and man-made disasters in 2012 caused economic losses of USD 186 billion with approximately 14 000 lives lost. Large scale weather events in the US pushed the total insured claims for the year to USD 77 billion, which is the third most expensive year on record. This amount is still significantly lower than 2011, when record earthquakes and flooding in Asia Pacific caused historic insured losses of over USD 126 billion, the highest ever recorded.

Weather-related events in the US dominate 2012

2012 was dominated by large, weather-related losses in the US. Nine of the ten most expensive insured loss events happened in the US in 2012.¹ The high insurance penetration in North America meant that USD 65 billion, over half of the USD 119 billion in economic losses in the region, were covered by insurance.

Kurt Karl, Swiss Re's Chief Economist, says: "The severe weather-related events in the US provided a reminder of the value of insurance and the vital role it plays in helping individuals, communities and businesses to recover from the devastating effects of catastrophes. However, large parts of the globe that are prone to weather extremes were not able to rely on financial relief due to low insurance penetration."

Hurricane Sandy was the most expensive event for the year both in terms of economic and insured losses. The Hurricane caused an estimated total of USD 70 billion in economic losses, making it the second most damaging hurricane on record after Hurricane Katrina in 2005. Insured losses were approximately USD 35 billion, out of which USD 20 to 25 billion were covered by the private insurance market.

¹ See Table 1



The remaining insured losses were incurred by the National Flood Insurance Program. Losses stemmed from the largest ever wind span recorded for a North Atlantic hurricane, and from the ensuing massive storm surge that caused damaging flooding in a densely populated area on the East Coast of the US. It also led to the worst power outage caused by a natural catastrophe in the history of the US. Hurricane Sandy also struck the Caribbean and stretched as far north as Canada, thereby adding to the loss of lives and property.

Matthias Weber, Swiss Re's Group Chief Underwriting Officer, says: "Sandy challenged the industry with its combination of record wind field and storm surge. The possibility that such events could increase in frequency and strike densely populated regions such as the northeast US means that extreme storm-surges need to be more thoroughly understood."

A simulation exercise presented in the *sigma* study shows how an increase of sea levels of 10 inches (0.25 metres) by 2050,² will almost double the probability of extreme flood losses occurring. For the industry, this means that a USD 20 billion insured loss event, now expected once in 250 years, would be expected once in 140 years.³

Highest ever recorded agricultural loss

Record heat and extremely dry weather conditions in the US led to one of the worst droughts in recent decades, affecting more than half of the country. Severe crop failures in the US Corn Belt resulted in insured agricultural losses of USD 11 billion, including pay-outs from the federal Multi-Peril Crop Insurance (MPCI) assistance program. This makes the 2012 drought the highest ever recorded loss in agriculture insurance. The record drought in the bread basket of the US highlighted the economic importance of insurance, supporting the economic survival of thousands of farmers.

Largest ever insured earthquake losses in Italy

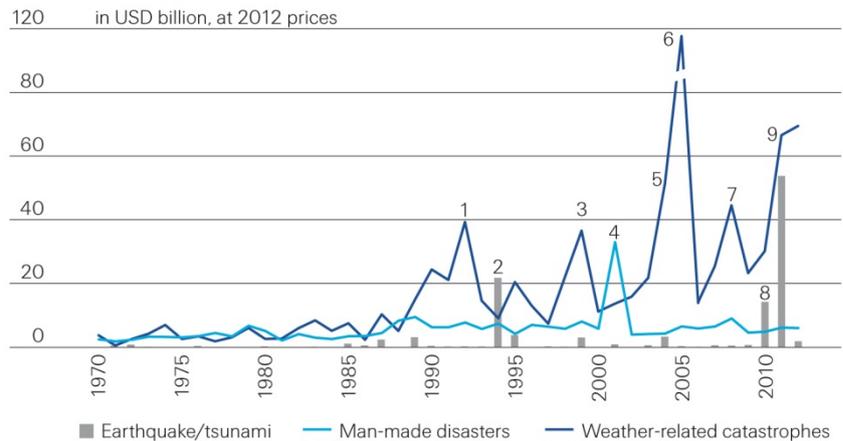
A rare and relatively weak series of earthquake shocks in the north of Italy caused insured losses in excess of USD 1.6 billion, the highest ever recorded in the country. The total economic loss for these earthquakes was USD 16 billion. Balz Grollmund, Swiss Re's Head of earthquake risk, says: "Although substantial, insured claims were only a fraction of the total cost of the event. Italy, a country with multiple seismic sources, has one of the lowest earthquake insurance penetration rates among industrialised countries with high exposure to earthquake risk."

² This lies within the range provided by a recent study conducted for the State of New York. Horton, R. et al. (2011): Climate risks. In "Responding to Climate Change in New York State: The ClimAID Integrated Assessment for Effective Climate Change Adaptation: Technical Report", Rosenzweig, C. et al. (Eds.). New York State Energy Research and Development Authority, pp. 15-48

³ See Figure 2



Insured catastrophe losses 1970–2012



- | | |
|---|--|
| 1 1992: Hurricane Andrew | 6 2005: Hurricanes Katrina, Rita, Wilma |
| 2 1994: Northridge earthquake | 7 2008: Hurricanes Ike, Gustav |
| 3 1999: Winter Storm Lothar | 8 2010: Chile, New Zealand earthquakes |
| 4 2001: 9/11 attacks | 9 2011: Japan, New Zealand earthquakes, Thailand flood |
| 5 2004: Hurricanes Ivan, Charley, Frances | |

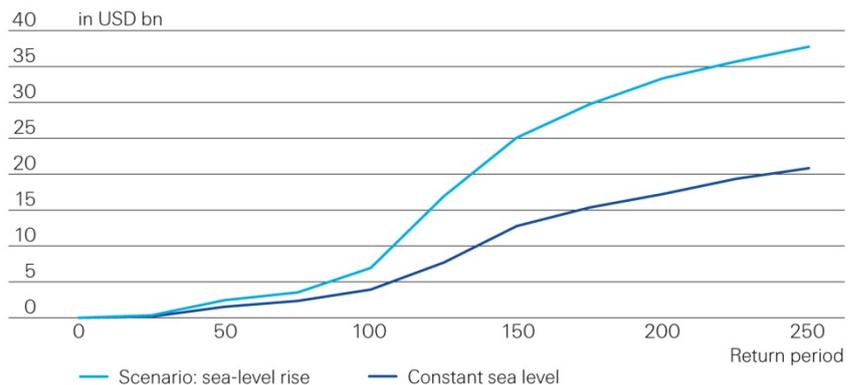
Source: Swiss Re Economic Research & Consulting

The most costly insured catastrophe losses in 2012

	Insured losses ¹ (in USDbn)	Date	Event	Country	
1	35	Oct/Nov	Hurricane Sandy	US (et al)	[2]
2	11	Jul/Sep	Drought in the Corn Belt	US	[3]
3	2.5	March	Severe storms, tornadoes	US	[4]
4	2.5	April	Severe storms, tornadoes	US	[4]
5	2.0	July	Derecho storm	US	[4]
6	1.7	May	Thunderstorms, tornadoes, hail	US	[4]
7	1.6	May	Earthquakes M _w 5.9 and M _w 5.8	Italy	[5]
8	1.6	August	Hurricane Isaac	US	[6]
9	1.0	June	Thunderstorms, tornadoes, hail	US	[4]
10	1.0	June	Thunderstorms, >tornadoes, hail, flooding (Wichita)	US	[4]

- [1] Property and business interruption, excluding liability and life insurance losses
 [2] Swiss Re estimate. Includes private insurance market loss of USD 20 to 25 billion and National Flood Insurance Program losses
 [3] Swiss Re estimate. Includes losses from Multi-Peril Crop Insurance (MPCI) States in the Corn Belt: IL, IN, IA, MI and parts of NE, KS, MN, MO
 [4] With the permission of Property Claims Services (PCS)
 [5] With the permission of Perils AG. The estimate has not been officially published
 [6] Swiss Re estimate. Includes National Flood Insurance Program losses

A 10 inch rise in sea levels will increase insured losses for events that occur every 200 years from USD 17 billion to USD 34 billion



Source: Swiss Re



Notes to editors:

Definitions and selection criteria for <i>sigma</i> catastrophe statistics:	
Natural catastrophes	Loss events triggered by natural forces
Man-made disasters	Loss events associated with human activities
Insured catastrophe losses	Losses caused by the catastrophes covered by property insurance
Total economic losses	Also include the uninsured part of the property losses related to the catastrophes
Minimum selection criteria:	
Total losses	USD 91.1 million
Or: Insured property claims	Shipping: USD 18.3 million Aviation: USD 36.7 million Other: USD 45.5 million
Or: Casualties	Dead or missing: 20 Injured: 50 Homeless: 2 000

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The comprehensive *sigma* study "Natural and man-made catastrophes in 2012" will be published in Spring 2013. If you wish to pre-order a printed copy, please send your order, complete with your full postal address, to: sigma@swissre.com

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The English, German, French, and Spanish versions of the *sigma* study No 2/2013, "Natural and man-made catastrophes in 2012", are available electronically on Swiss Re's website: www.swissre.com/sigma. The versions in Chinese and Japanese will appear in the near future.

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