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Press release

Flood events in 2013 highlight the positive effect of defence measures

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Natural catastrophe losses in 2013 were dominated by floods. Detailed analyses have shown that protective measures can drastically reduce losses. For example, the June 2013 floods in Germany and neighbouring countries proved to be considerably less damaging than the flooding in the summer of 2002.

In 2013, some 37% of overall losses worldwide from natural catastrophes were flood-related, substantially higher than the 22% average for the period since 1980. These figures are taken from Munich Re's new publication "Topics GEO – Natural catastrophes 2013", which provides statistics and analyses of the most significant events of last year. (<http://www.munichre.com/en/topics-geo-2013>)

The floods that hit southern and eastern Germany and neighbouring countries in June 2013 caused overall losses of €11.7bn and insured losses of €2.4bn, making them the year's costliest natural catastrophe anywhere in the world. The Elbe floods of 2002, however, caused losses totalling €17bn. The lower claims bill in 2013 is to some extent due to the type of rainfall involved: the lower intensity of the rainfall in the Elbe catchment area in 2013 triggered fewer flash floods and consequently caused less damage to infrastructure such as roads and bridges. The Danube catchment, on the other hand, was much more seriously affected than in 2002.

Flood control structures were a major factor in the lower level of losses in 2013. For example, mobile flood barriers in Prague, Dresden, Bratislava and Budapest were able to withstand the waters. There had also been important organisational lessons learnt from the 2002 floods. Here are three examples:

- Risk management approach of the Dresden water utility: Following the 2002 floods, protection measures at crucial facilities were improved, e.g. in order to protect power supplies. At the beginning of the 2013 floods, the company set up a crisis management team, involving and informing all relevant parties. The result of these measures was that damage was only about one-quarter of that in 2002 and business interruption at one water treatment plant was reduced to 18 days in 2013 compared with 160 days in 2002.
- Housing companies: The owners of three large apartment blocks in Dresden developed a systematic alarm plan, which enabled them to

halve damage to underground car parks and electrical operating systems.

- Flood protection on the North Sea coast and the Elbe in Hamburg: In early December, Winter Storm Xaver triggered a severe storm surge on the North Sea coast, reaching the second highest level in Hamburg since records began. Although the surge peaked at a level 39 cm higher than in the catastrophic flood of 1962 with its hundreds of fatalities, there was almost no damage thanks to much-improved flood protection.

“Flooding is the natural hazard for which protection measures are most effective”, explains Peter Höpfe, Head of Geo Risks Research at Munich Re. “Our loss statistics also show that developing countries in particular can suffer horrendous damage and loss of life from flood events. Just a few measures such as imposing a building ban in highly exposed regions and smart alarm systems can bring about an enormous improvement.”

Other severe floods in 2013 occurred in June in the Himalayan valleys of the Indian state Uttarakhand (5,500 fatalities), in June and July in the Canadian provinces of Alberta and Ontario (overall losses of nearly US\$ 6bn and US\$ 1.6bn respectively) and in the US state of Colorado in September (overall losses of US\$ 1.5bn).

The greatest humanitarian catastrophe of the year was Typhoon Haiyan, believed to be the strongest tropical cyclone ever to make landfall, with peak gusts of up to 380 km/h. Haiyan swept across several Philippine islands, causing a storm surge six metres high and claiming 6,000 lives.

In terms of its financial impact, 2013 was a moderate year for natural catastrophes, as there were no large losses from earthquakes or US hurricanes. Overall losses came to US\$ 135bn, 27% below the average of the last ten years (US\$ 184bn). Insured losses of US\$ 35bn were also below the ten-year average (US\$ 56bn) despite the high number of events in central Europe.

“The loss figures for 2013 show just important preventive and protective measures are. This should send a clear signal to developing countries in particular: many are highly vulnerable to natural hazards and are experiencing massive growth in exposed values but have yet to take suitable preventive measures to keep pace with these developments”, explained Torsten Jeworrek, Munich Re's Reinsurance CEO. “The widespread use of insurance to help lessen the consequences of natural catastrophes would be of great benefit in these countries. Risk partnerships between the state and the international insurance industry, tailored to suit individual countries and exposure situations, could be an ideal way to approach the matter. Munich Re can use its expertise and experience in the field of natural catastrophes to help create effective solutions for these problems.”

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