



## River floods and earthquakes pose highest risk to urban areas says new Swiss Re report

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- **New Swiss Re report benchmarks the natural catastrophe risks faced by 1.7 billion city-dwellers in 616 metropolitan centres around the world**
- **Flooding endangers more people than any other natural catastrophe**
- **Study finds that Asian cities are most at risk in terms of people exposed**
- **Impact on countries with one or a few urban centres could come as a surprise with disastrous consequences**
- **A combination of physical protection measures and financial security are needed to improve urban resilience**

**Zurich, 18 September 2013 – When cities are struck by a natural disaster millions of people's lives can be disrupted and the economic impact can be quite considerable. Swiss Re's publication, *Mind the Risk: A global ranking of cities under threat from natural disasters*, provides a risk index comparing the human and economic exposure of 616 cities around the globe. The study is a basis for decision-makers, as well as the insurance industry and the broader public to promote dialogue on urban resilience.**

"Already today, major river floods alone have the potential to affect 380 million people living in cities; and some 280 million people could be impacted by severe earthquakes," says Matthias Weber, Group Chief Underwriting Officer at Swiss Re. "We need to better understand what makes cities more resilient and what decisions about investments and infrastructure are needed to minimise the loss of life, property and economic production."

Drawing on data in Swiss Re's CatNet® tool and modelling know-how, this report demonstrates that coastal cities in Asia are especially at risk of catastrophic floods, storms, storm surges, earthquakes or tsunamis. For example about 29 million people in the Tokyo-Yokohama region could be affected by a major earthquake. Considering all perils it is the world's most exposed urban area, followed by Manila and the Pearl River Delta in China. Outside Asia, Los Angeles is the highest ranked city (9<sup>th</sup> globally).

When essential infrastructure breaks down and people can no longer get to work, natural catastrophes can significantly disrupt the local and national economy. The report finds that metropolitan areas such as Tokyo, Los Angeles, New York and Amsterdam-Rotterdam rank high in



terms of potential lost productivity, measured by the value of working days lost. For example, the report shows that while a devastating earthquake in Los Angeles could affect just as many people as in Jakarta, the resulting value of working days lost would be 25 times higher.

In some conurbations, a natural disaster can have a devastating effect on the economy of the entire country. This is the case in larger cities such as Lima, but also in smaller cities such as San Jose in Costa Rica. Although potential economic losses in these cities are relatively modest, their importance as national centres of production places them among the top ten riskiest cities when measured by the expected fallout for their home countries.

Across the metropolitan areas studied, river flooding poses by far the largest risk. India and China have the most people exposed to flooding. However, the economic loss potential from river flooding pushes European cities such as Amsterdam-Rotterdam, Paris, Milan and London higher in the rankings.

Matthias Weber says: "We hope this study will give fresh impetus to the global debate about strengthening the resilience of cities and encourage governments, citizens and the insurance industry to take collective action to mitigate the risks faced by urban communities around the world."

| Urban areas with the most people potentially affected by all 5 perils*: |       | Urban areas ranked by index of working days lost, by all 5 perils* |      | Urban areas ranked by index of working days lost relative to national impact, by all 5 perils* |      |
|---|-------|--|------|--|------|
| Tokyo-Yokohama (JPN)  | 57.1m | Tokyo-Yokohama (JPN)   | 4.50 | Manila (PHL)   | 1.95 |
| Manila (PHL)  | 34.6m | Osaka-Kobe (JPN)   | 2.71 | Amsterdam-Rotterdam (NLD)  | 1.31 |
| Pearl River Delta (CHN)   | 34.5m | Nagoya (JPN)   | 2.69 | Tokyo-Yokohama (JPN)   | 1.29 |
| Osaka-Kobe (JPN)  | 32.1m | Pearl River Delta (CHN)  | 1.78 | San Jose (CRI)   | 1.26 |
| Jakarta (IND)   | 27.7m | Amsterdam-Rotterdam (NLD)  | 0.96 | Guayaquil (ECU)  | 1.20 |
| Nagoya (JPN)  | 22.9m | Los Angeles (USA)  | 0.93 | Taipei (TWN)   | 1.02 |
| Kolkata (IND)   | 17.9m | New York-Newark (USA)  | 0.62 | Ndjamena (TCL)   | 1.00 |
| Shanghai (CHN)  | 16.7m | San Francisco (USA)  | 0.47 | Nagoya (JPN)   | 0.97 |
| Los Angeles (USA)   | 16.4m | Paris (FRA)  | 0.46 | Tainan-Kaohsiung (TWN)   | 0.90 |
| Tehran (IRN)  | 15.6m | Taipei (TWN)   | 0.39 | Lima (PER)   | 0.90 |

\* catastrophic floods, storms, storm surges, earthquakes or tsunamis



## Notes to editors

### Global media call

Swiss Re will hold a media call today at 10am EDT New York / 4pm CET Zurich to discuss the findings and analysis of the report.

You are kindly requested to dial in 10 minutes prior to the start using the following numbers:

|                       |             |
|-----------------------|-------------|
| +1 631 570 5613       | USA         |
| 866 416 2555          | Canada      |
| +41 (0)58 310 50 00   | Switzerland |
| +44 (0)203 059 58 62  | UK          |
| +33 (0)1 7091 8706    | France      |
| +49 (0)69 25 511 4445 | Germany     |
| +852 5808 1769        | Hong Kong   |
| +65 3158 0802         | Singapore   |
| +61 28 073 0441       | Australia   |

Copies of *Mind the Risk: A global ranking of cities under threat from natural disasters* are available from [www.swissre.com](http://www.swissre.com).

Information on Swiss Re's CatNet® is available at [www.swissre.com/catnet](http://www.swissre.com/catnet)

For interviews with our experts on urban resilience, please contact Swiss Re Media Relations +41 43 285 7171 or [Media\\_Relations@swissre.com](mailto:Media_Relations@swissre.com).

### Swiss Re

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- changing levels of competition; and
- operational factors, including the efficacy of risk management and other internal procedures in managing the foregoing risks.

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