

Munich Re
Foundation
From Knowledge
to Action





MI Conference
Cartagena



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Climate Risk Adaptation Insurance

Different impacts/scales/products

Micro-scale

Microinsurance

individual health, life, funeral,
property, livestock starting

Meso-scale

Derivatives and Index Insurance

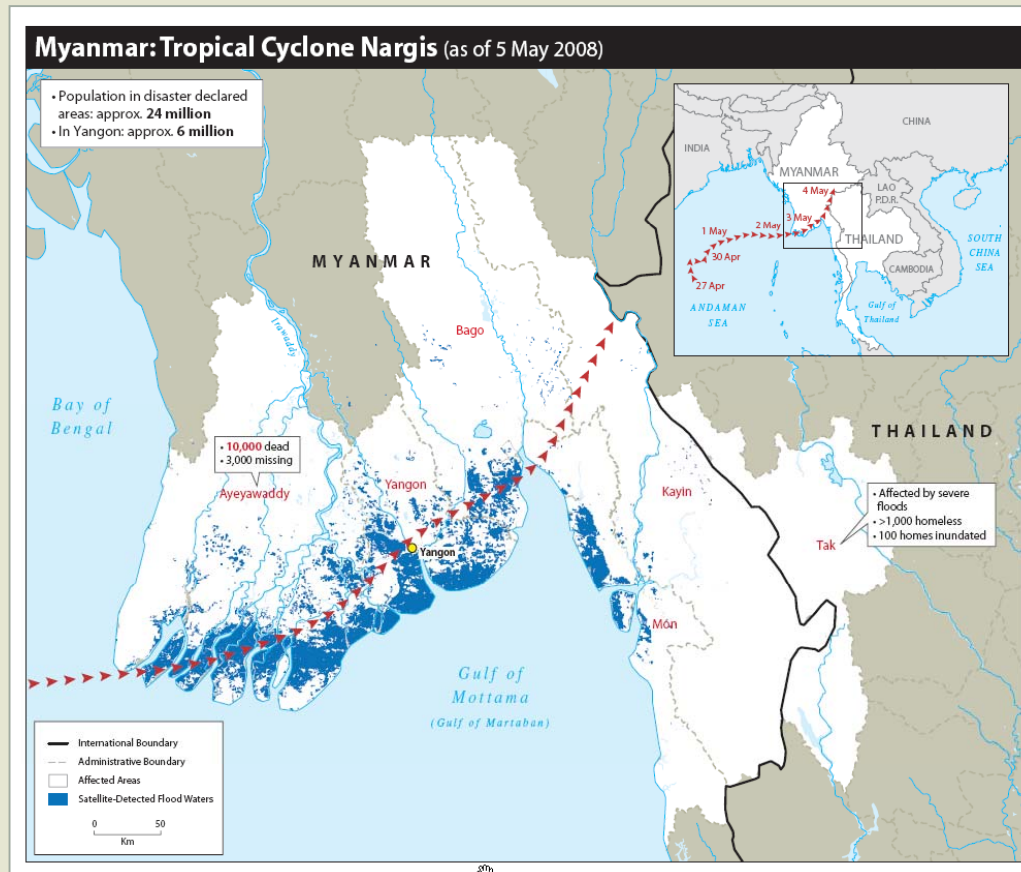
drought (farming), flooding started

Macro-scale

Cat Bonds, Pool Solutions, Funds

Natural events and disasters are macro- and meso-scale
Agricultural is meso- or micro-scale

Tropical Cyclone Nargis, 2.-3. May 2008



Wind speeds up to 215 km/h (Cat4)

Irrawaddy-Delta flooded

Rangoon badly affected

Humanitarian catastrophe

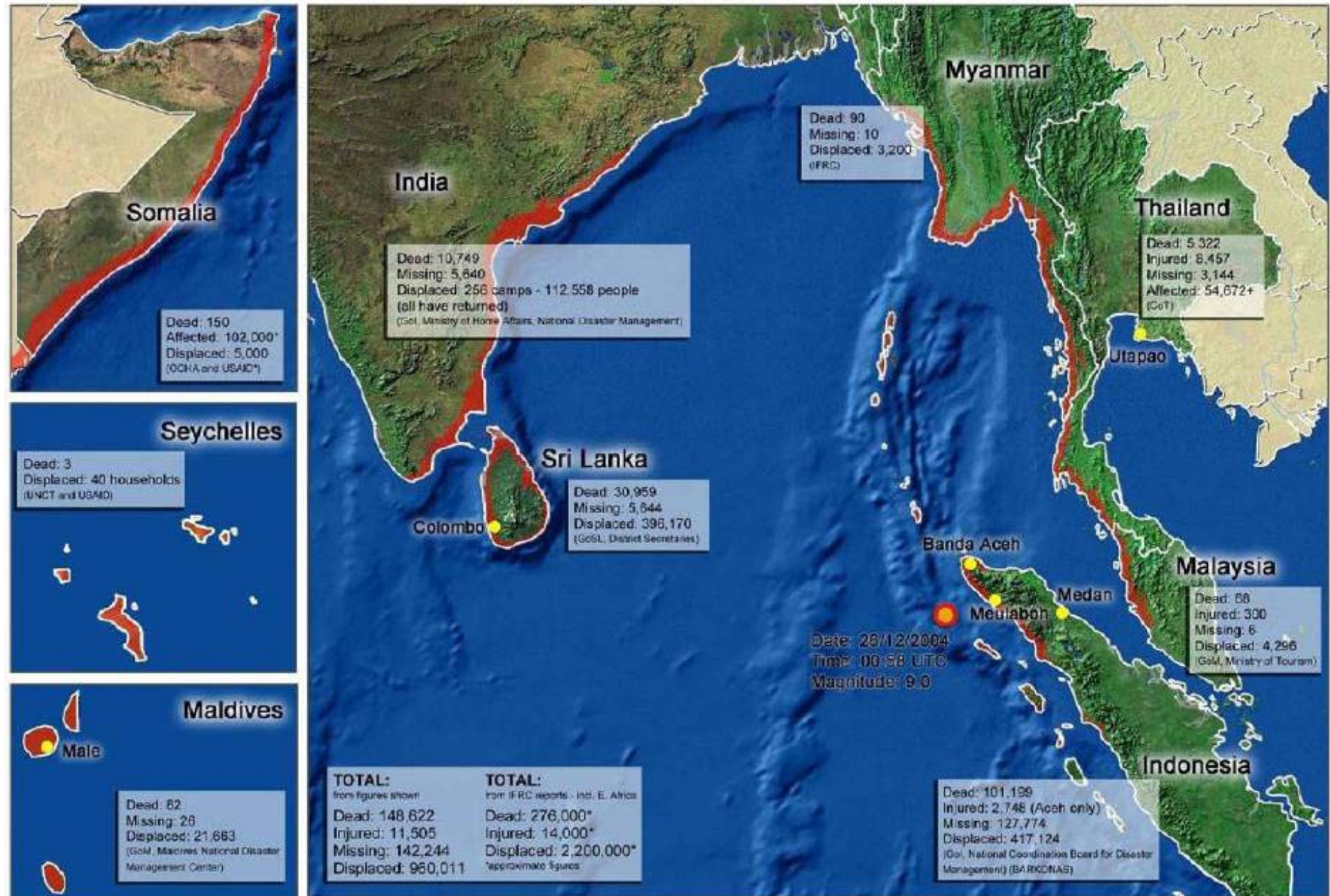
Estimated number of fatalities/missing people >100,000

Source: <http://www.reliefweb.int>

As at: 8 May 2008

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South Asia Earthquake and Tsunami: Affected population



The names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Data Sources: Governments of affected countries, IFRC, US AID, UN OCHA, UNCT (Seychelles)

ReliefWeb Map Centre
01 February 2005

Examples Macro Level

Country	Risk Event	Contract Structure	Index Measure	Target User	Status
Mexico FONDEN6 Fondo por Desastres Naturales	Natural disasters impacting small farmers, primarily Droughts	Index Insurance	Rainfall, wind speed, temperature	State governments for disaster relief	Began in 2001 ; available in 26 of 32 states; 28% of dryland cropland is covered
Mexico FONDEN Fondo por Desastres Naturales	Major Earthquakes	Cat bond and index insurance	Richter Scale readings	Mexican Government	Began in 2006 ; Cat Bond provides up to \$160 million; Index provides additional funding up to \$290 million
Caribbean CCRIF Caribbean Catastrophe Risk Insurance Facility	Hurricanes and Earthquakes	Index insurance with risk pooling for reinsurance coverage	Indexed data from NOAA and USGS	Caribbean country governments	Implemented in 2007 was triggered (and not triggered); won “insurance solution of the year”

Meso Level Famous examples

Country	Risk Event	Contract Structure	Index Measure	Target User	Status
Malawi	Drought	Index Insurance linked to lending	Rainfall	Groundnut farmers who are members of NASFAM7	Began in 2005 ; 2500 policies sold in 2006
Ethiopia	Drought	Index Insurance	Rainfall	WFP5 operations in Ethiopia	2006 : US\$7 million insured. Policy <i>not renewed</i> for 2007.
Mongolia WB, Jerry Skees	Large livestock losses due to Severe Weather	Index insurance with direct sales to herders	Area livestock mortality rate	Nomadic herders	Completed in 2007 ; offered in 3 provinces; 14% of eligible herders are participating

Insurance Markets

The wheel of Interest

