

Micro-Insurance for Natural Disasters

Concepts, Present and Future Outlook

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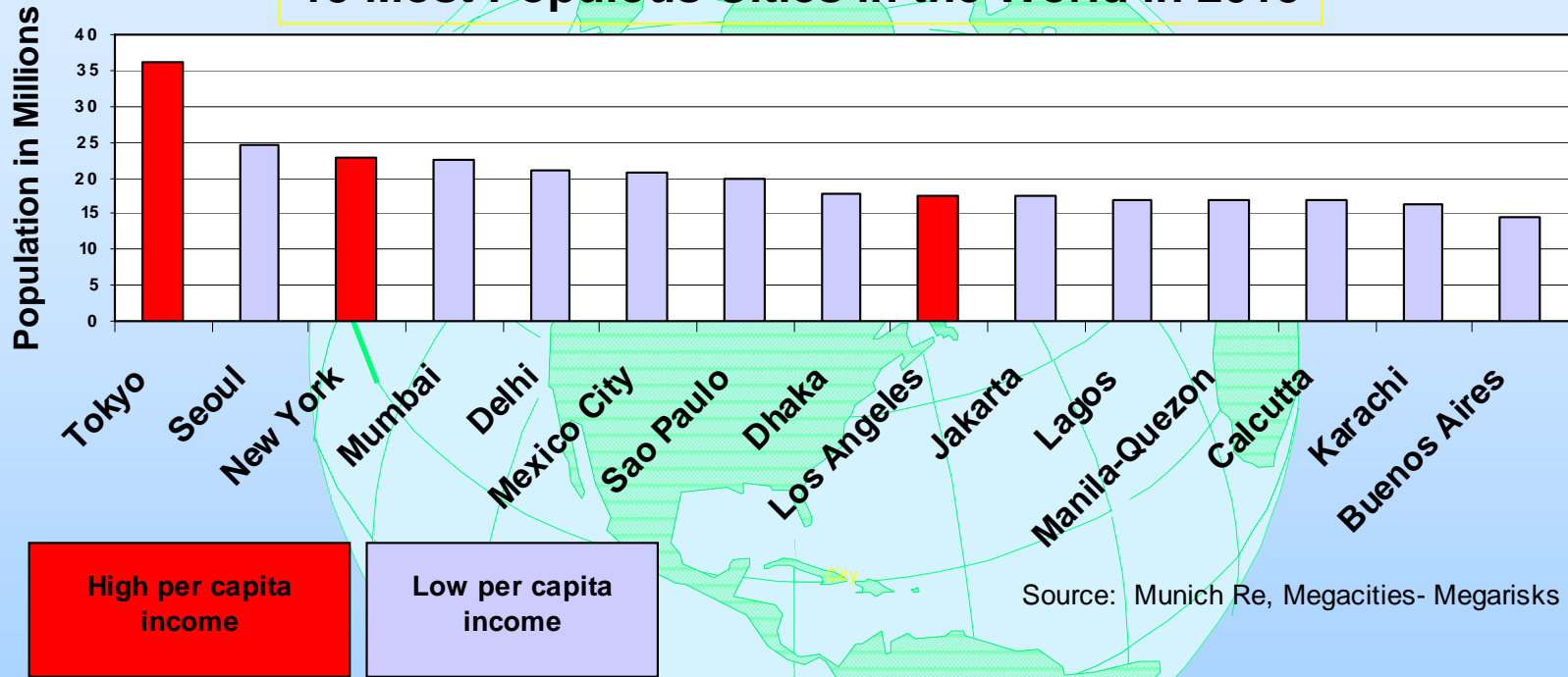
Tokyo Conference Center Shinagawa

October 5, 2007

Tokyo, Japan

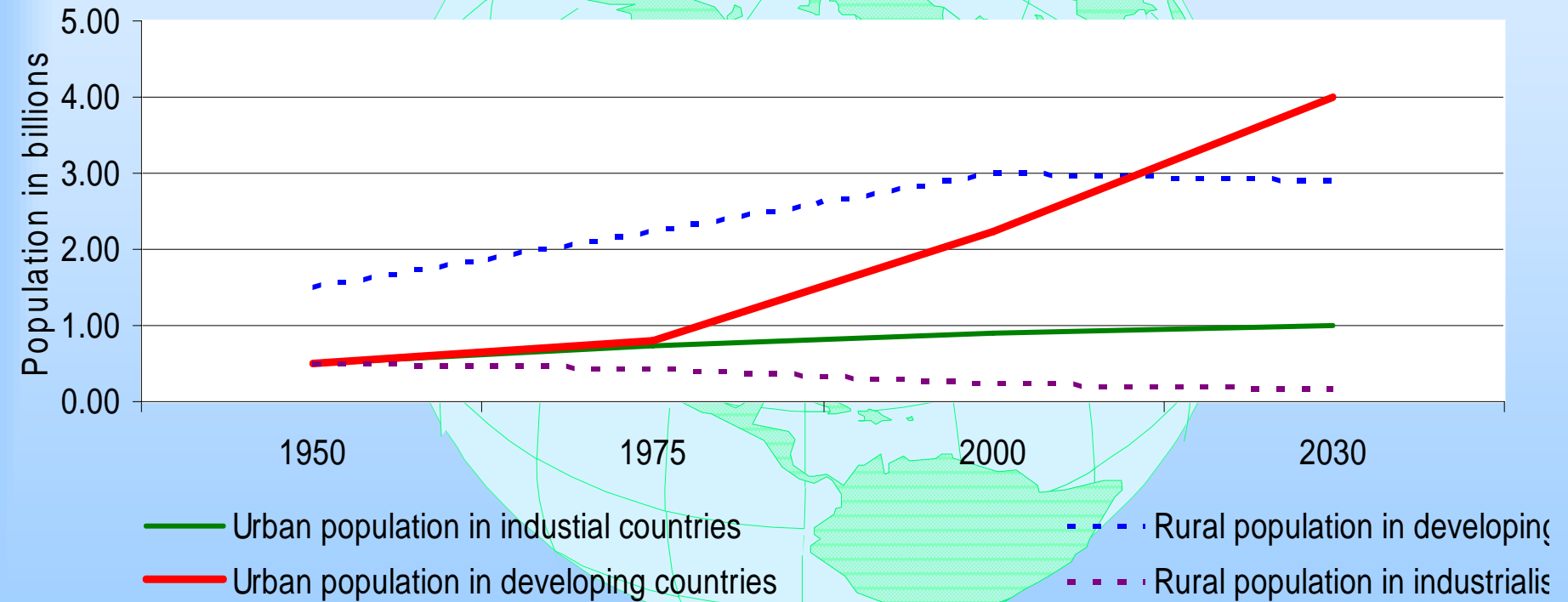
Changing Demographic Profile

15 Most Populous Cities in the World in 2015



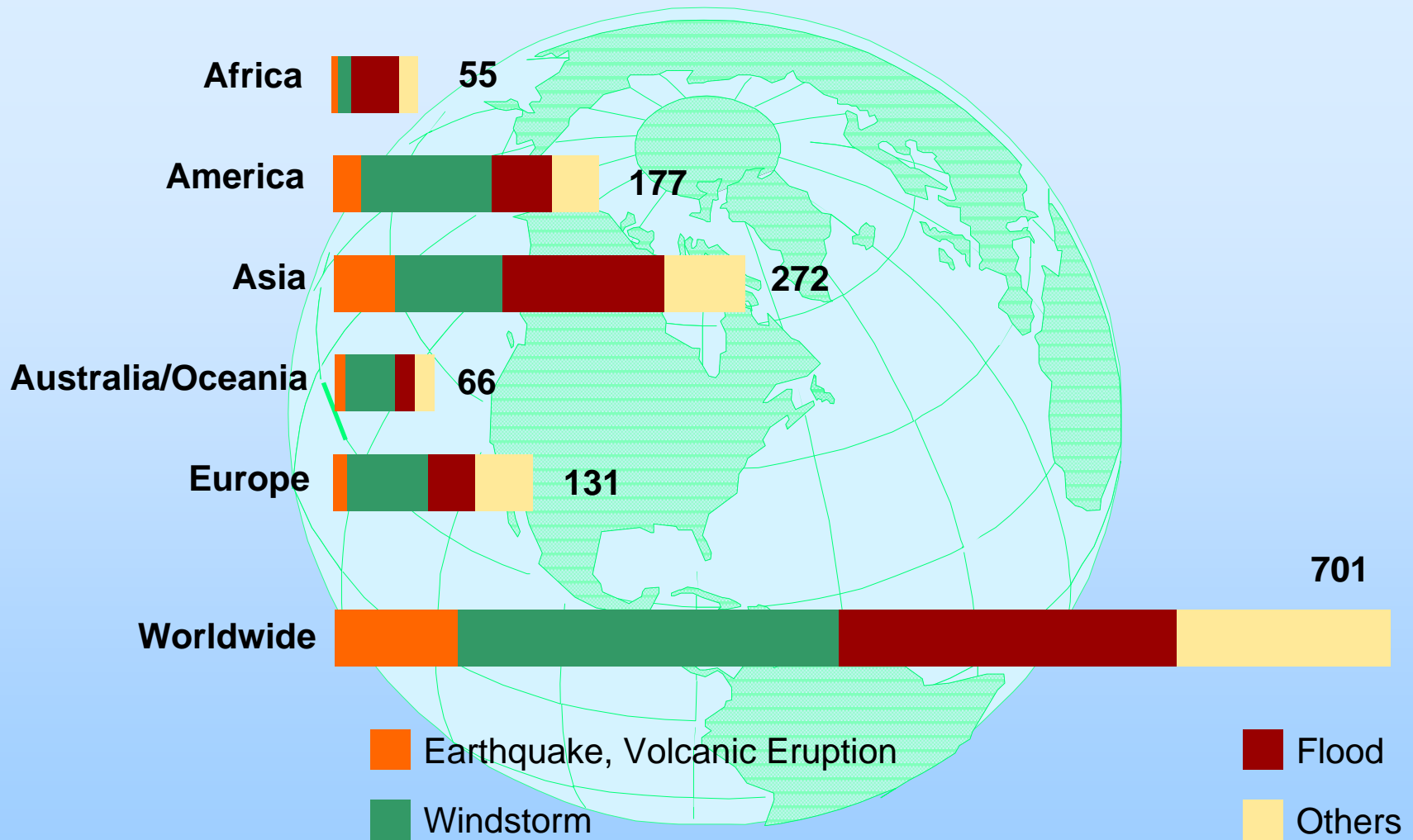
Changing Demographic Profile (cont'd)

The Gap is Widening



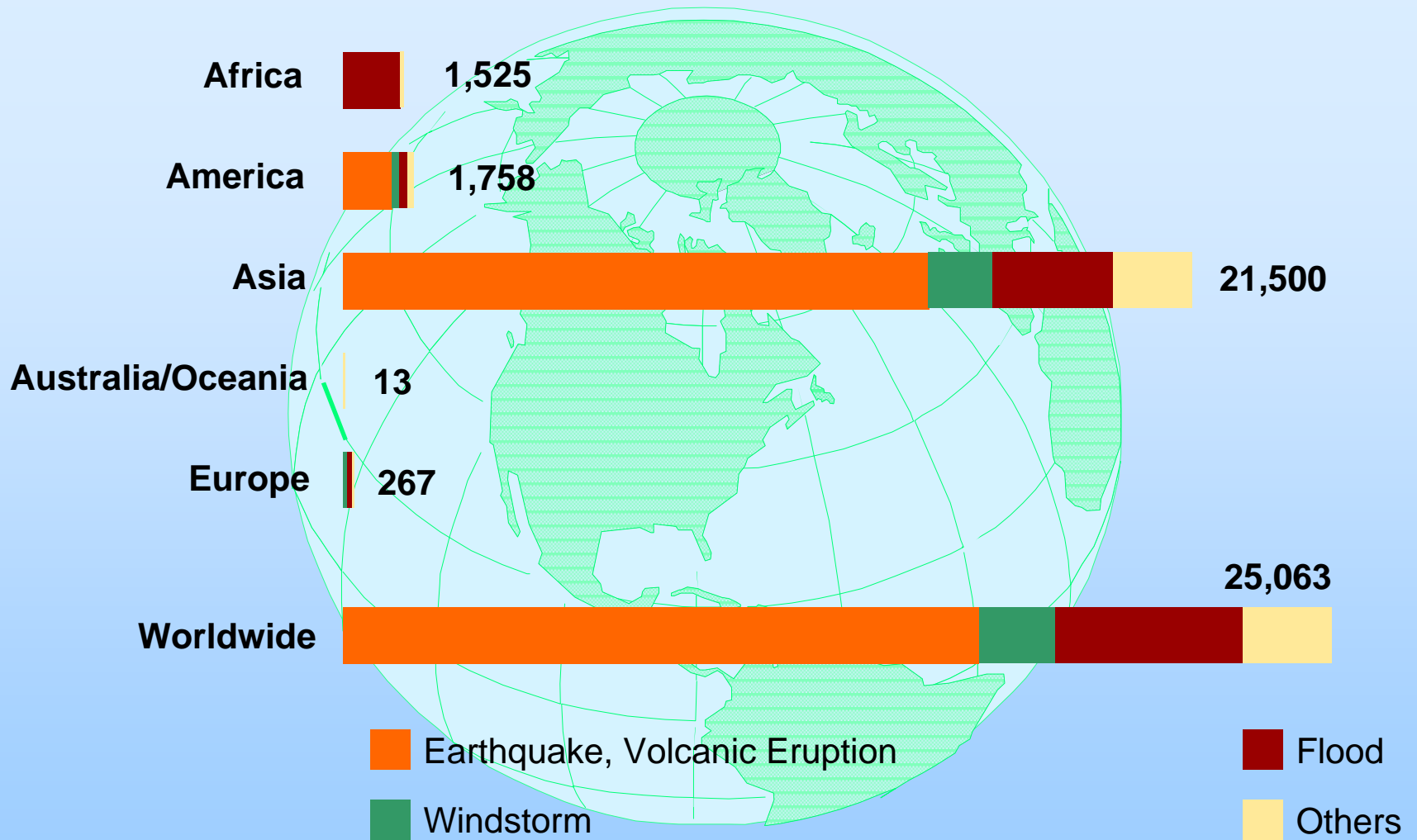
Source: Munich Re, Megacities - Megarisks

Natural Catastrophes: Number of Loss Events



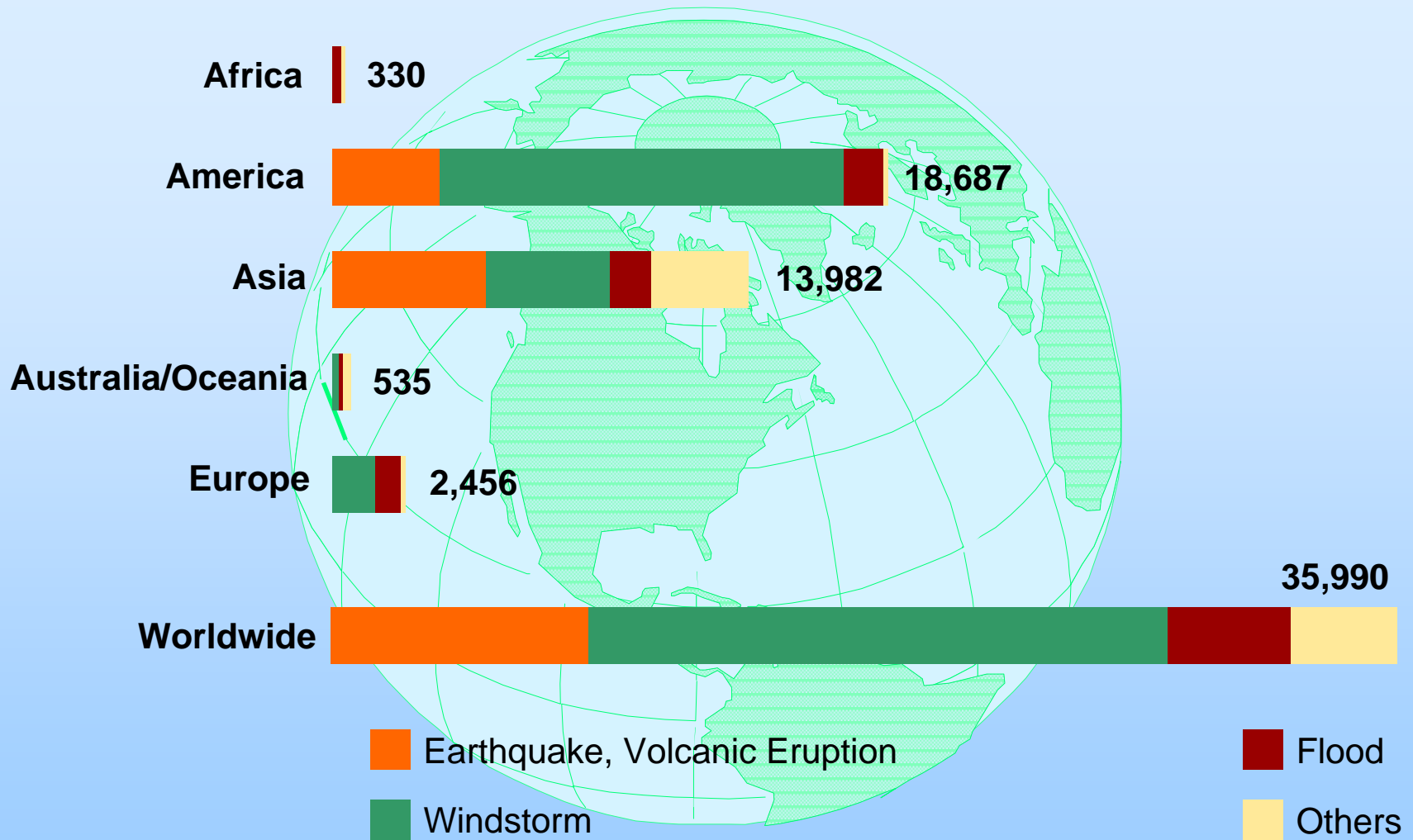
Source: Munich Re Topics 2001

Natural Catastrophes: Number of Fatalities



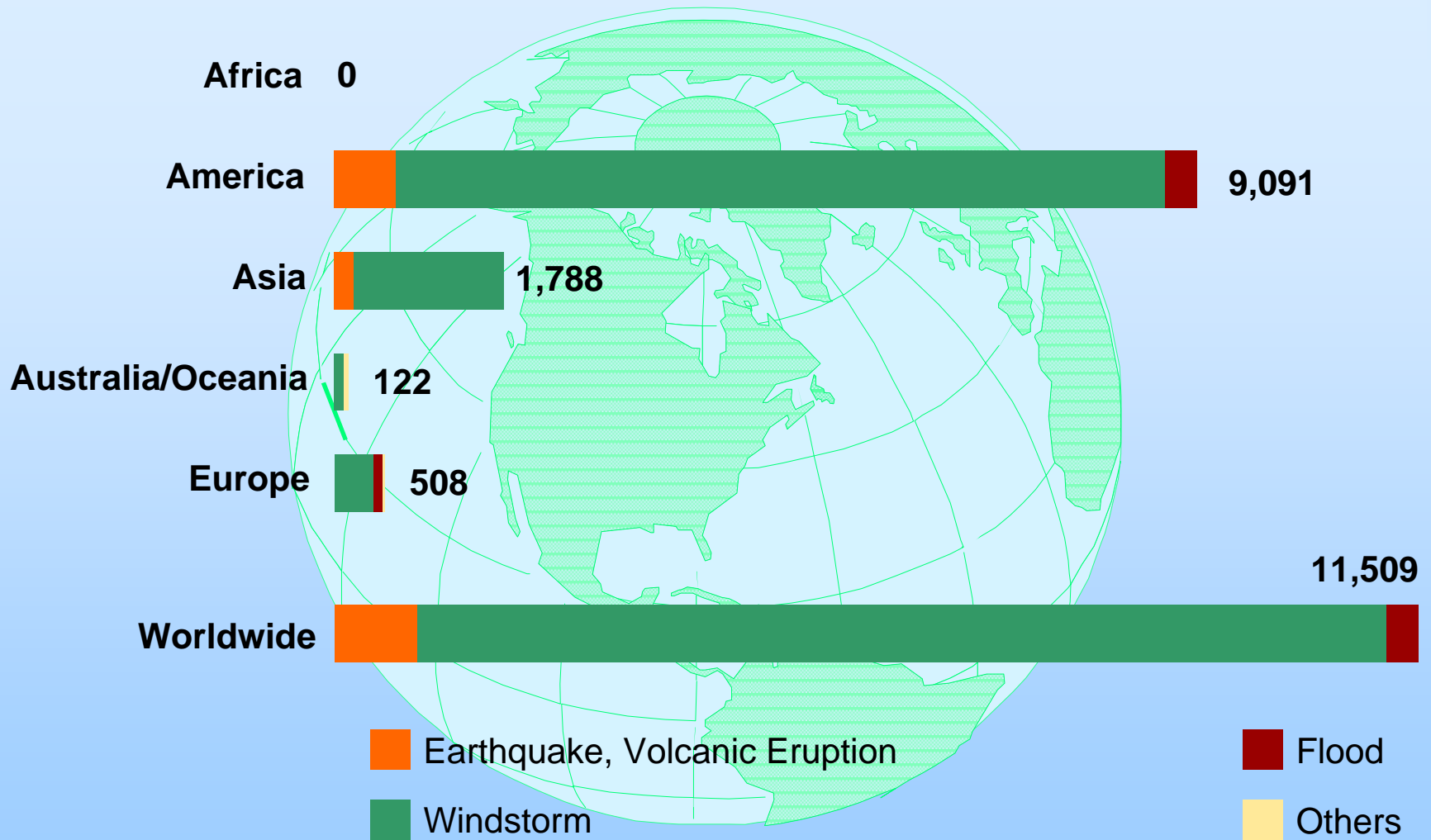
Source: Munich Re Topics 2001

Natural Catastrophes: Economic Losses (US\$ m)



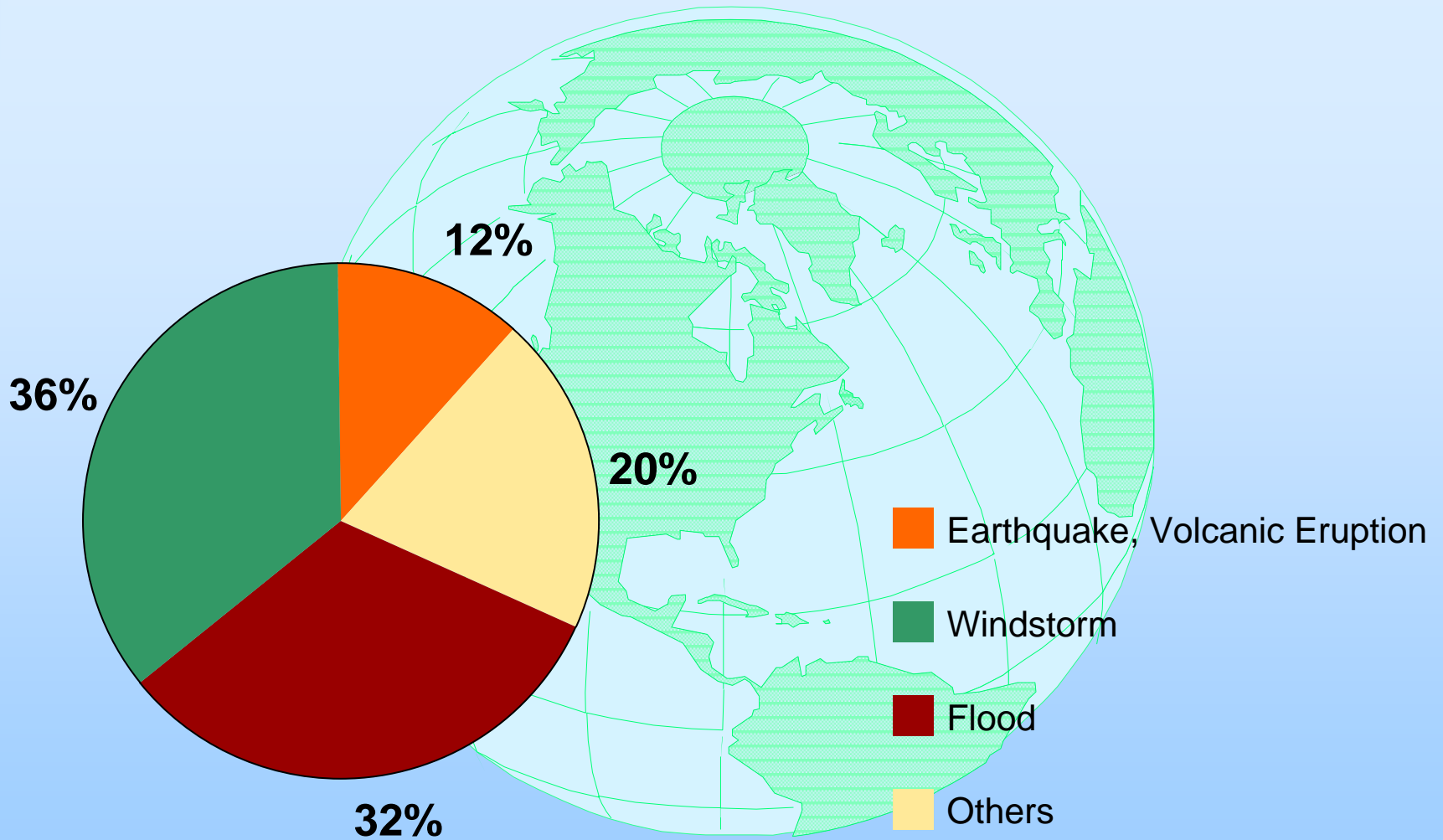
Source: Munich Re Topics 2001

Natural Catastrophes: Insured Losses (US\$ m)



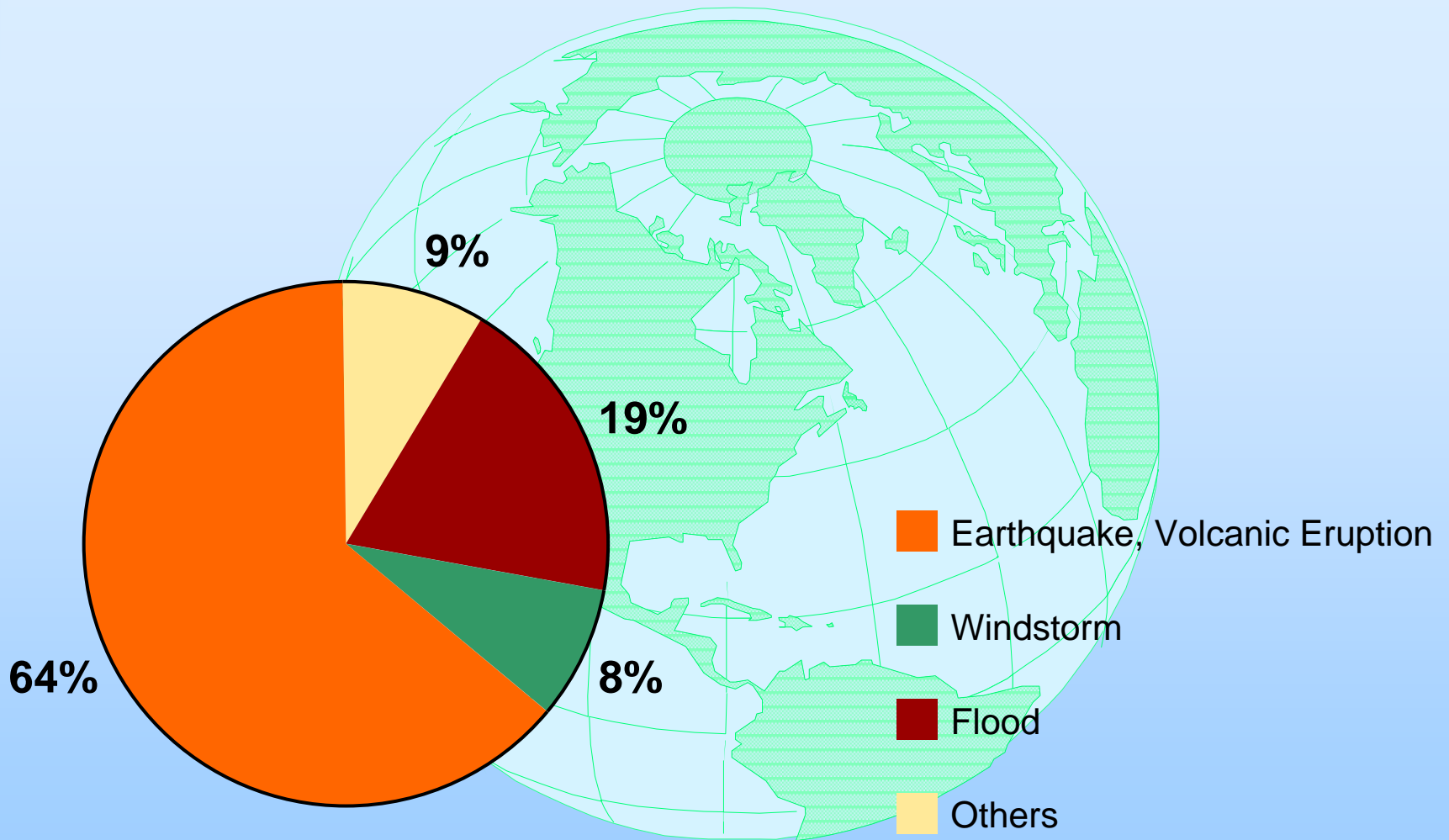
Source: Munich Re Topics 2001

Natural Catastrophes: 700 Loss Events



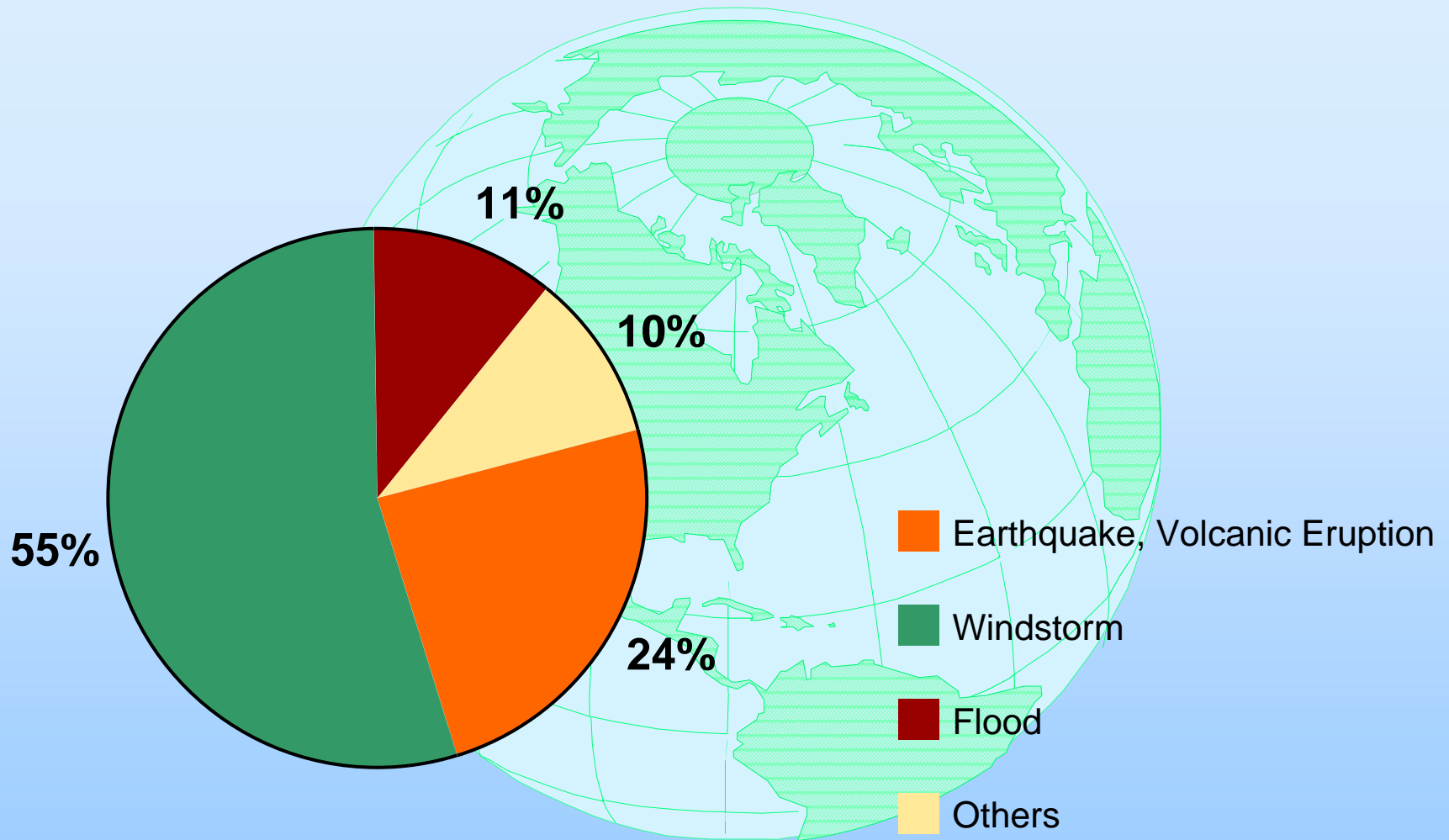
Source: Munich Re Topics 2001

Natural Catastrophes: 25,000 Fatalities



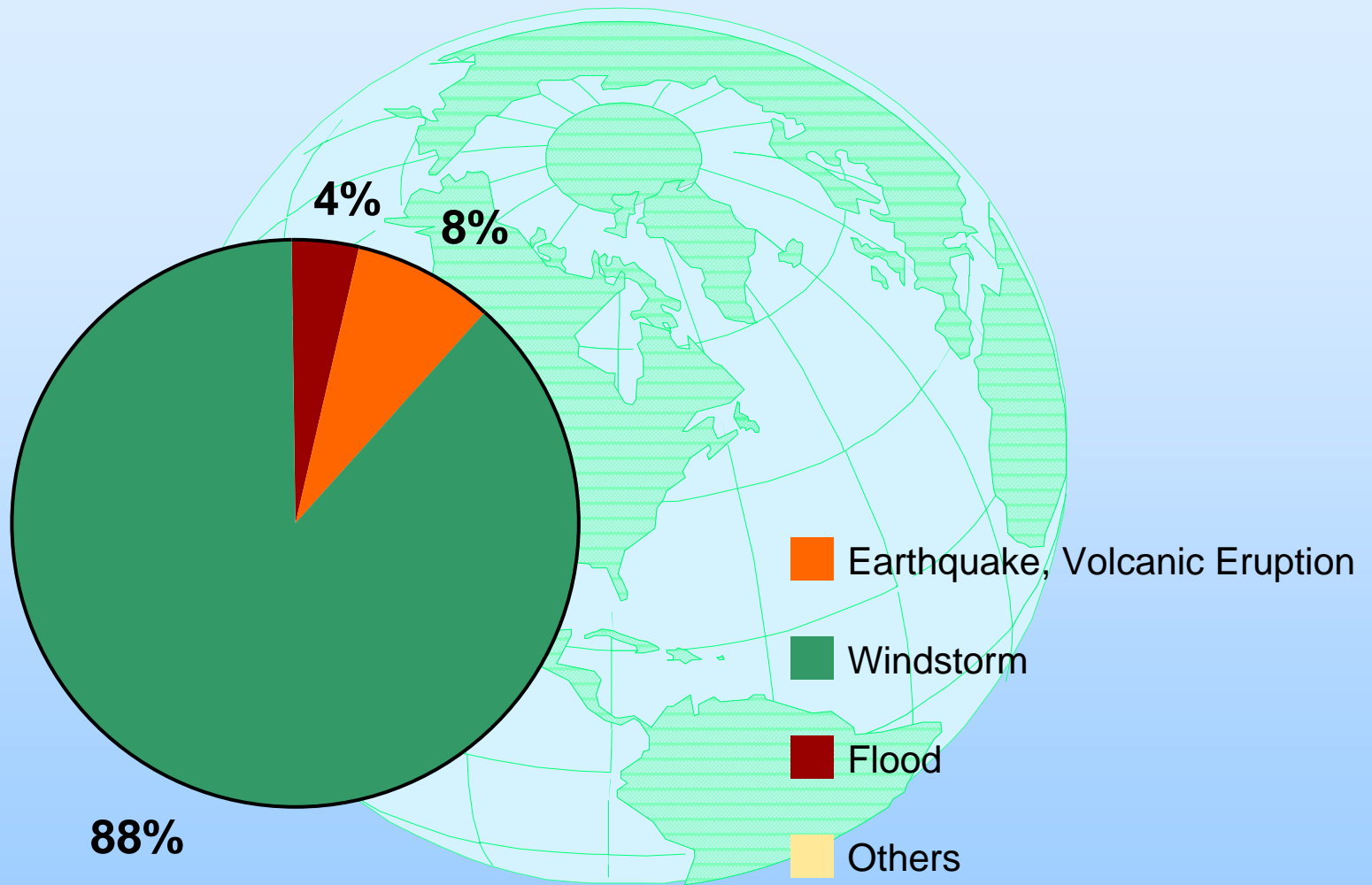
Source: Munich Re Topics 2001

Natural Catastrophes: Economic Losses: US\$ 36 bn



Source: Munich Re Topics 2001

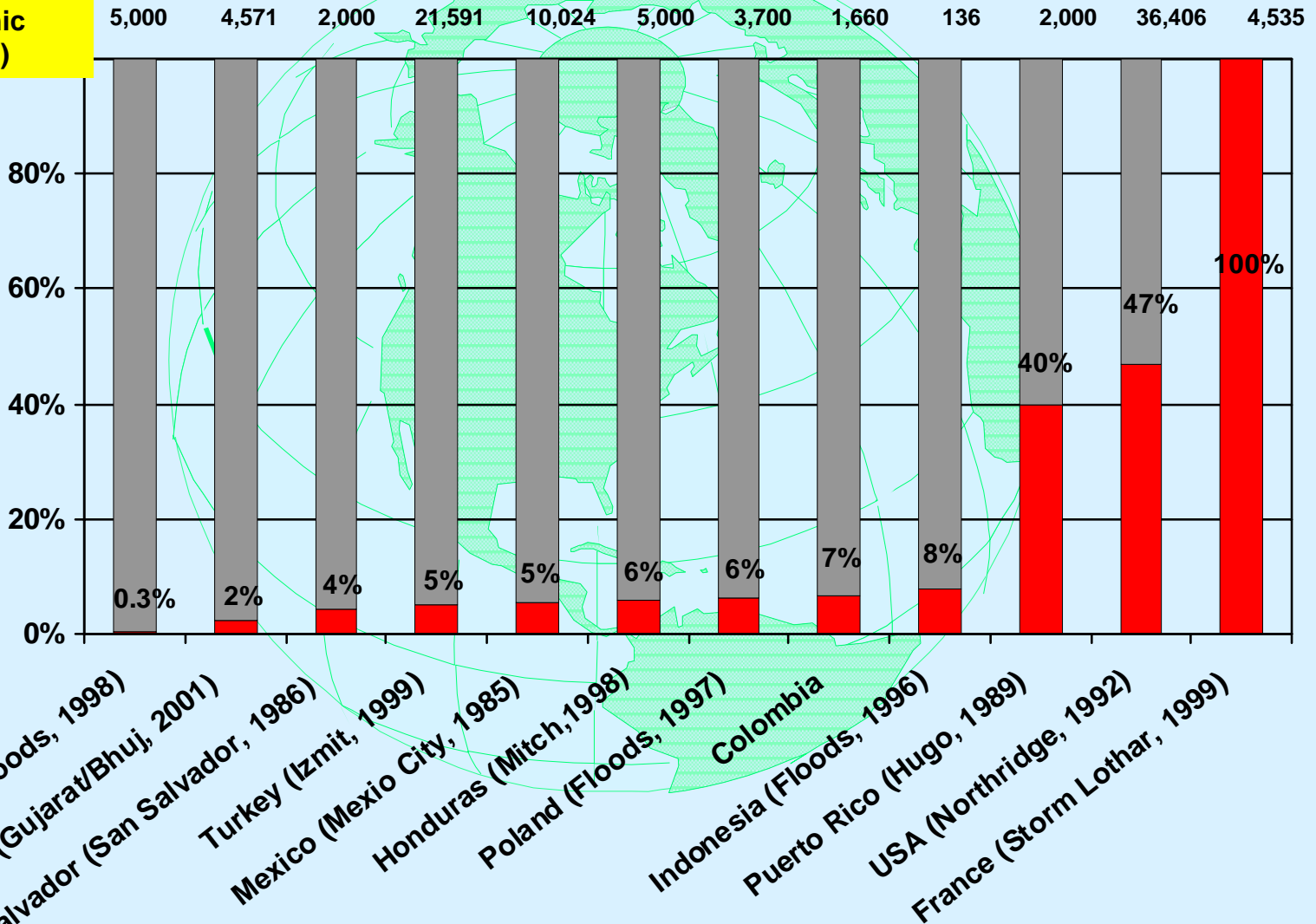
Natural Catastrophes: Insured Losses: US\$ 11.5 bn



Source: Munich Re Topics 2001

Insured vs. Total Economic Loss in Major Natural Catastrophes

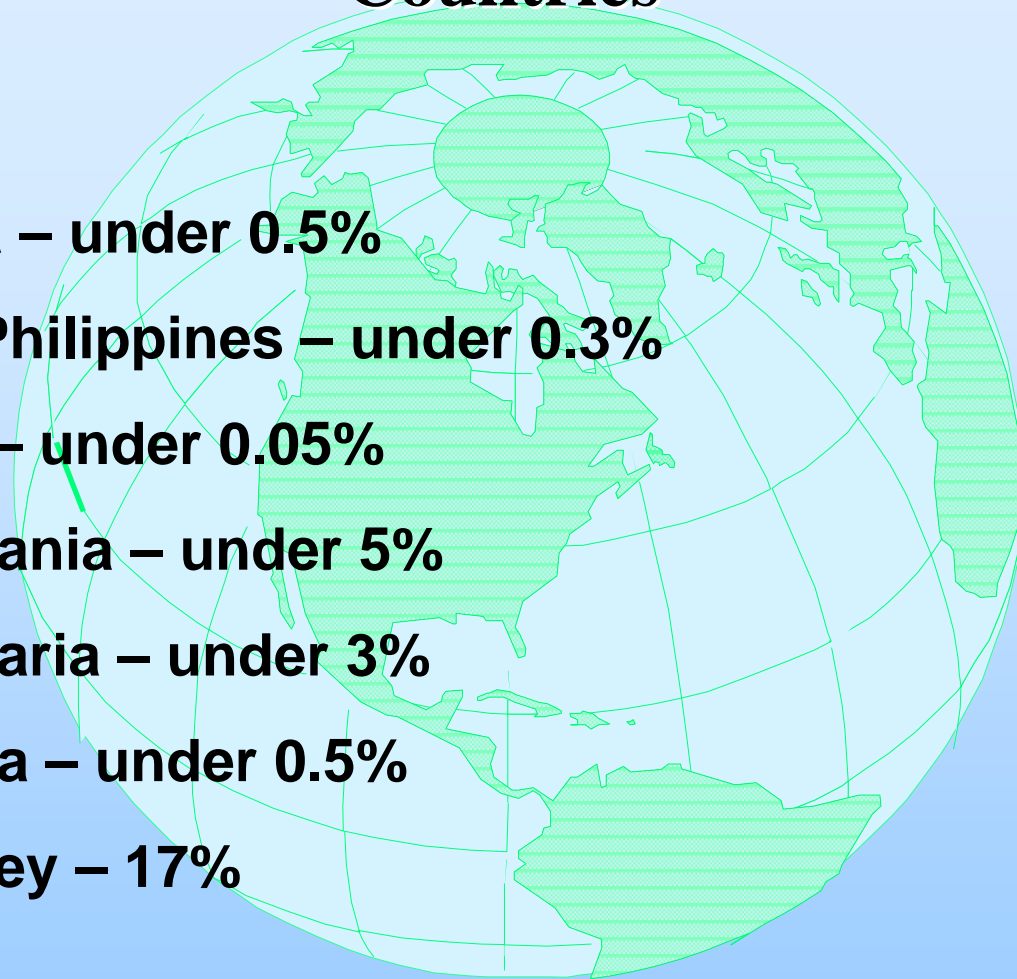
Total Economic Loss (US\$MM)



Source: Eugene Gurenko, 2004. Catastrophe Risk and Reinsurance: A Country Risk Management Perspective

Catastrophe Insurance Penetration in Developing Countries

- ❑ India – under 0.5%
- ❑ the Philippines – under 0.3%
- ❑ Iran – under 0.05%
- ❑ Romania – under 5%
- ❑ Bulgaria – under 3%
- ❑ China – under 0.5%
- ❑ Turkey – 17%

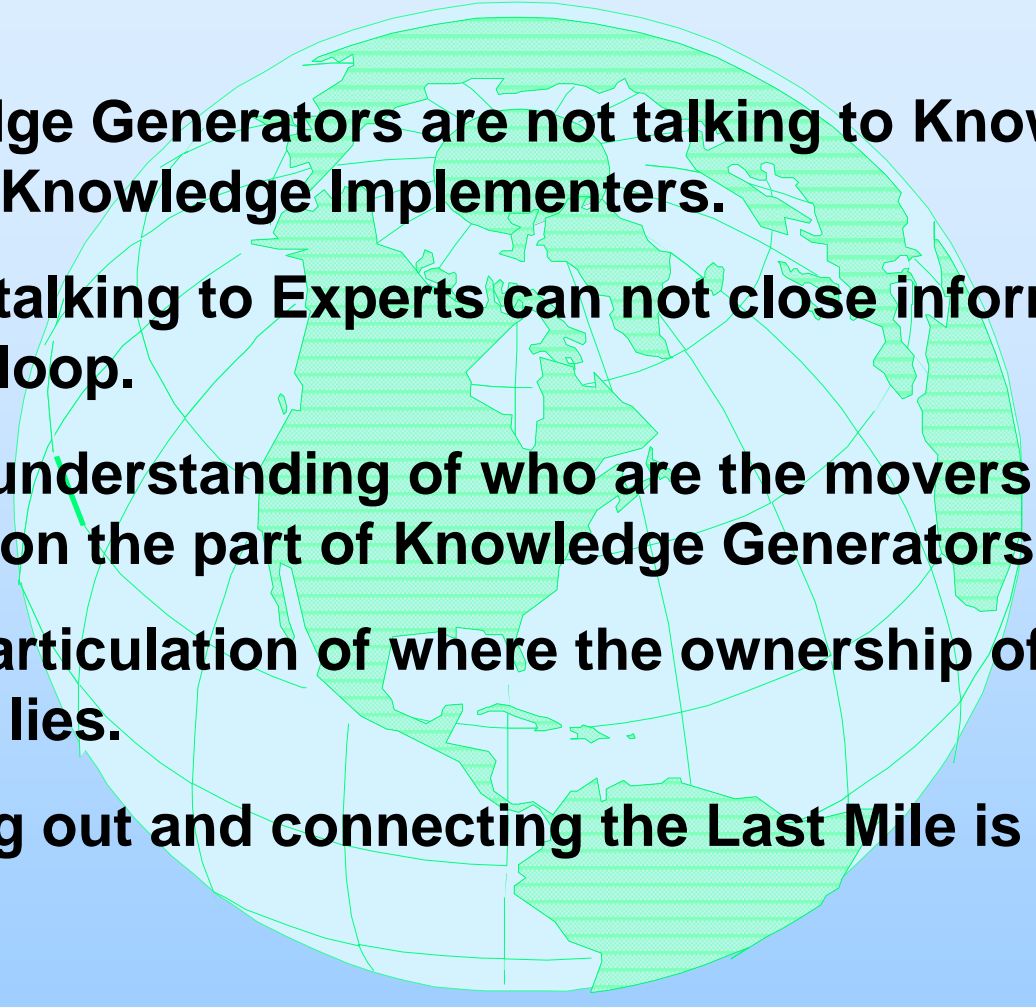


Observations from Data

1. **Economic losses are increasing with time**
2. **No progress in fatality reduction**
3. **Developed countries have made progress in reducing fatalities but not in economic losses**
4. **Developing countries have not made any progress in reducing fatalities or economic losses**




Discontinuity Between Knowledge and Performance

- Knowledge Generators are not talking to Knowledge Users & Knowledge Implementers.**
 - Experts talking to Experts can not close information transfer loop.**
 - Lack of understanding of who are the movers and shakers on the part of Knowledge Generators.**
 - Lack of articulation of where the ownership of the problem lies.**
 - Reaching out and connecting the Last Mile is missing.**
- 




Source: Financial Times

Some Suggestions for Creating Effective Partnerships

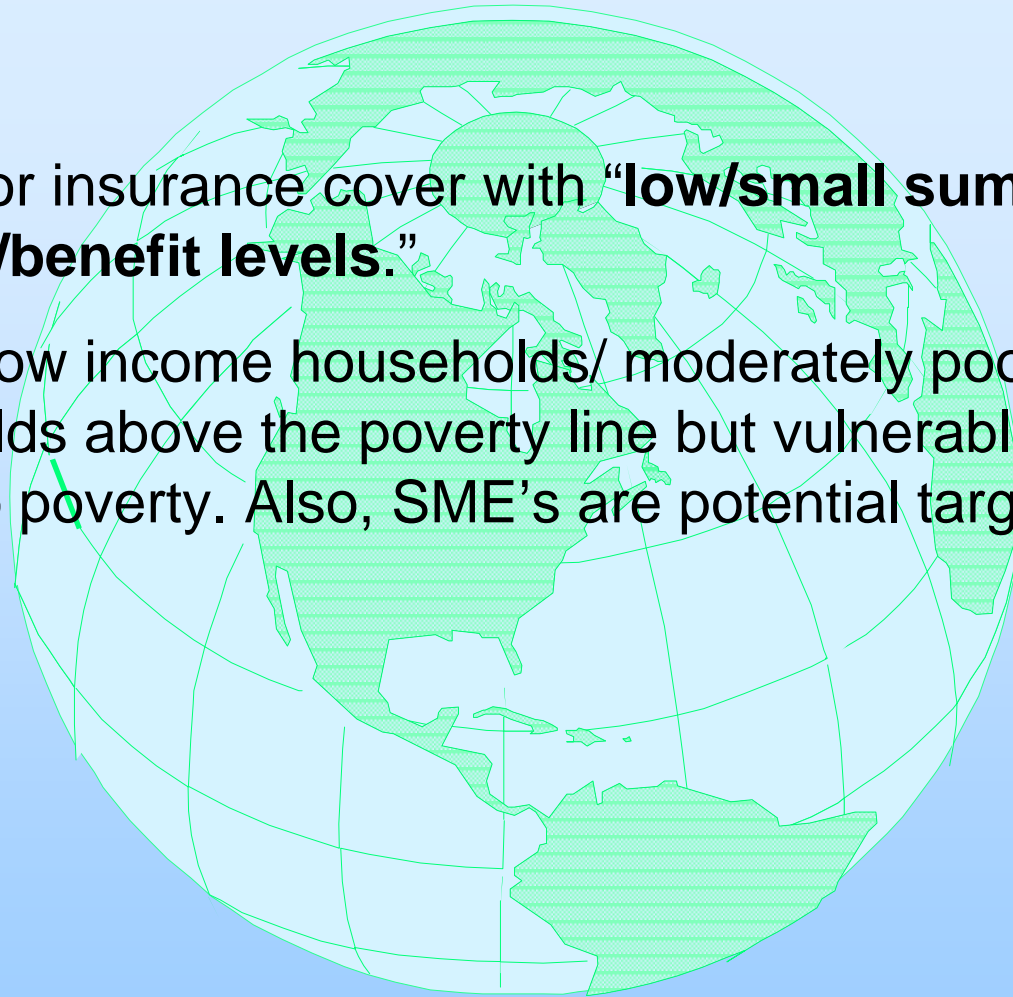
- 
- Understand and communicate incentive for Risk Mitigation to General Public.**
 - Partner with Media to communicate incentives and costs.**
 - Partner with Financial Institutions to communicate incentives and costs.**
 - Partner with Insurance/Reinsurance Industry to mitigate risk through Risk Transfer.**
 - Develop products like micro-insurance and micro-credits to help low income and rural population to transfer risks and to improve the risk profile of their homes.**

Concluding Remarks

- 
- ❑ **Dynamics of Demographic changes require us to develop true International Partnerships for Natural Disaster Mitigation.**
 - ❑ **“Business as Usual” has not worked. Innovative methods are needed to get the job done.**
 - ❑ **Unless society understands properly the cost/benefit equation of Risk Mitigation strategies and understands personal, corporate and societal incentives, it would be difficult to reduce Natural Disaster Risk.**

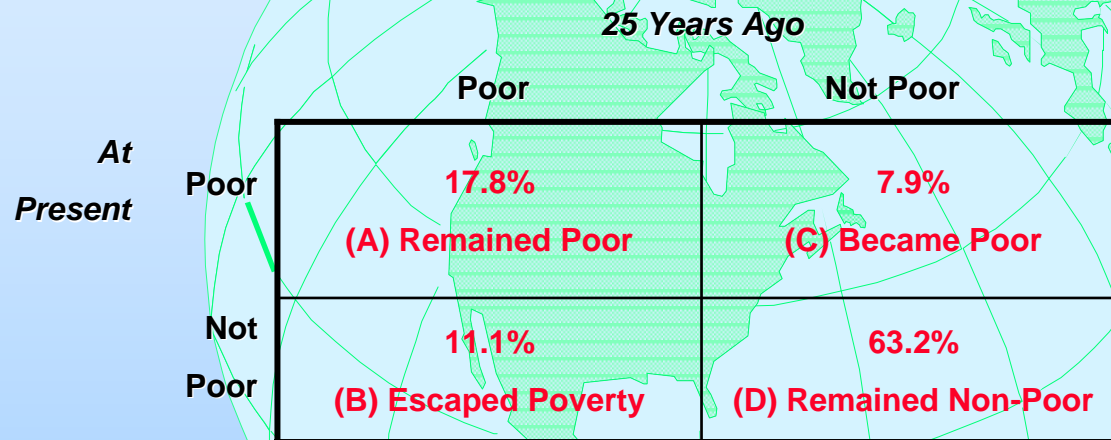
What is MICROINSURANCE?

- ❑ “micro” or insurance cover with **“low/small sum assured/benefit levels.”**
- ❑ **Target:** low income households/ moderately poor i.e., households above the poverty line but vulnerable to slipping back into poverty. Also, SME’s are potential targets.



Why Microinsurance?

Poverty Dynamics: 25 years ago to Present



Trends in household poverty in 35 North Indian Villages (poor households, %)

Source: Anirudh Krishna (2004); "*Escaping Poverty and Becoming Poor: Who Gains, Who Loses, and Why?*"; World Development Vol. 32, No. 1, pp. 121–136, 2004.

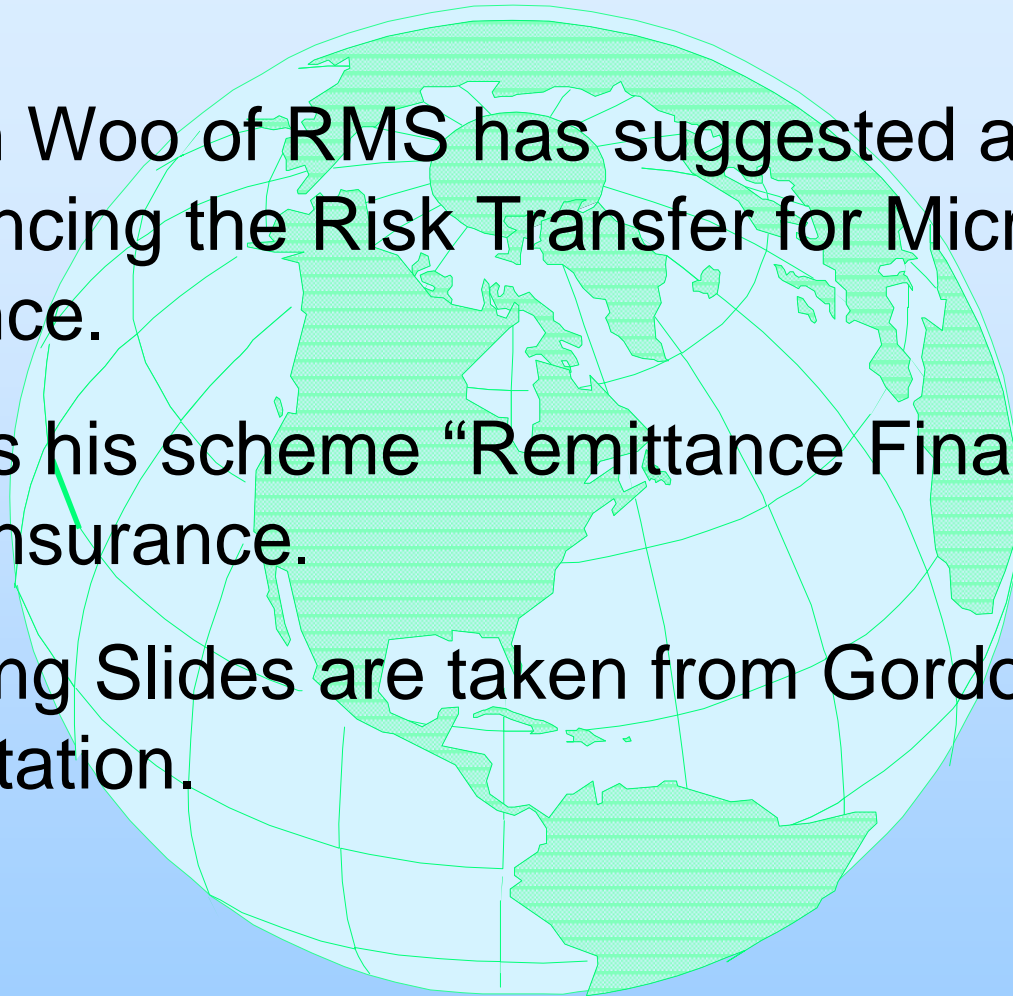
Risk analysis, Product development, and Pricing

- ❑ **Aligning products with the NEEDS. Given the “low-value” and “cost of product development” limited investments made by insurance company to develop new products.**
- ❑ **NO products to cover major “livelihood risks” of the rural poor e.g., livestock.**

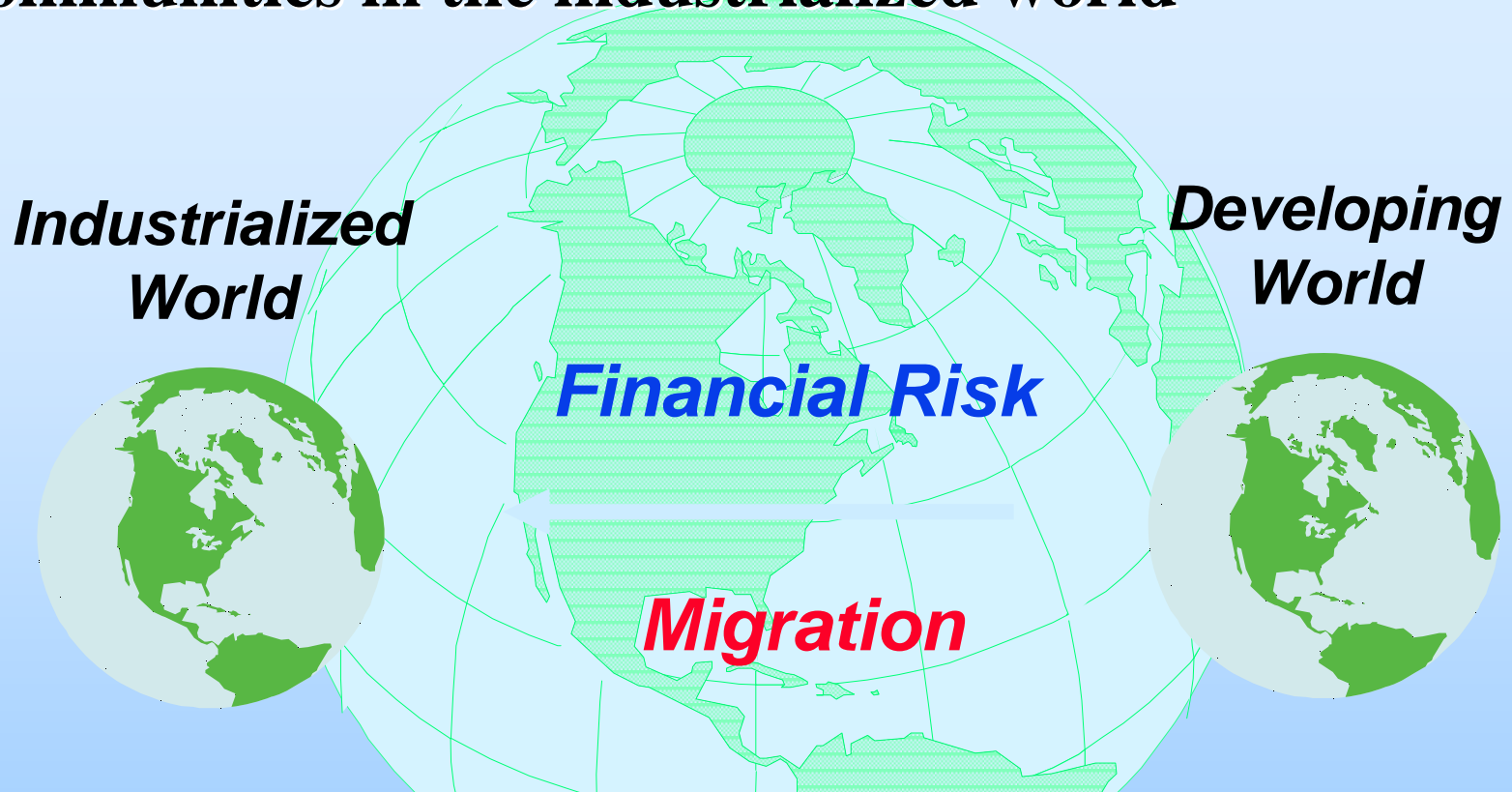


Remittance Financing

- ❑ Gordon Woo of RMS has suggested a scheme for financing the Risk Transfer for Micro Insurance.
- ❑ He calls his scheme “Remittance Financing of Micro-Insurance.”
- ❑ Following Slides are taken from Gordon Woo’s Presentation.



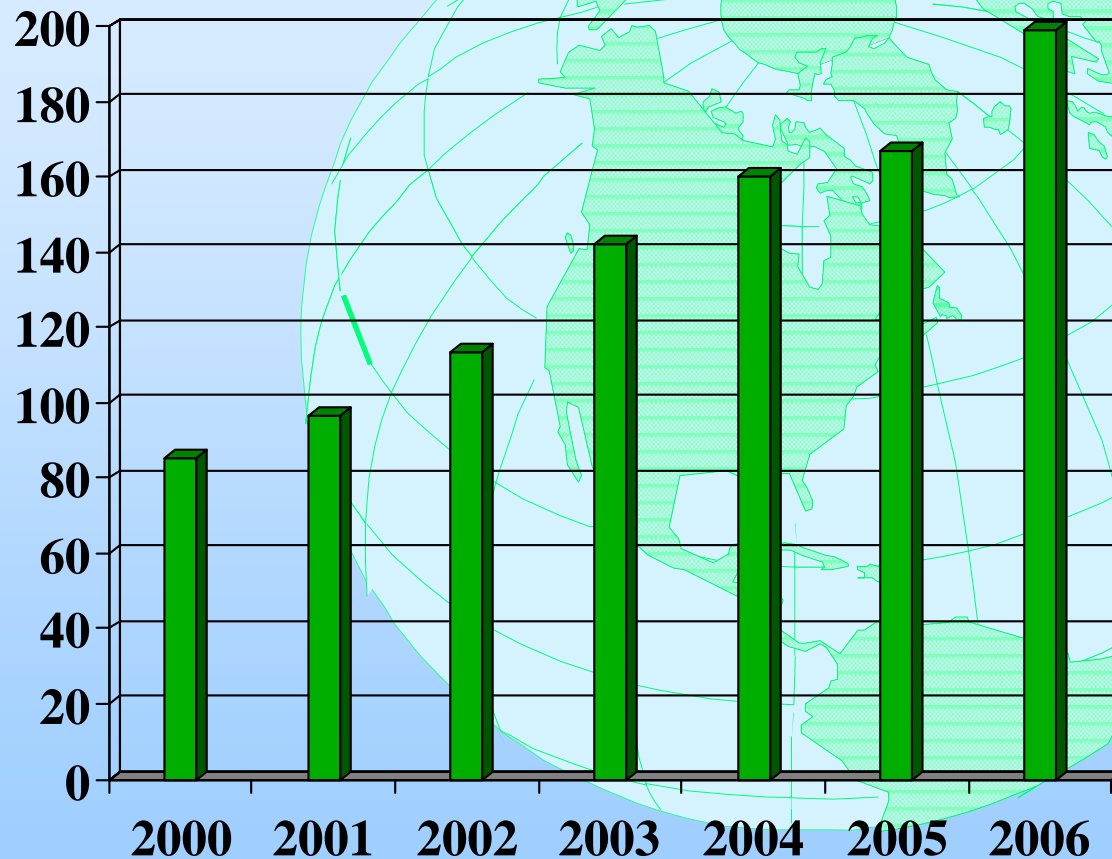
Trans-national risk transfer to diaspora communities in the industrialized world



**Insurance remains unaffordable
for most people in the developing world.**

The rising level of remittances

\$ BILLION



***Economic
Implications
of Remittances
and Migration***

World Bank

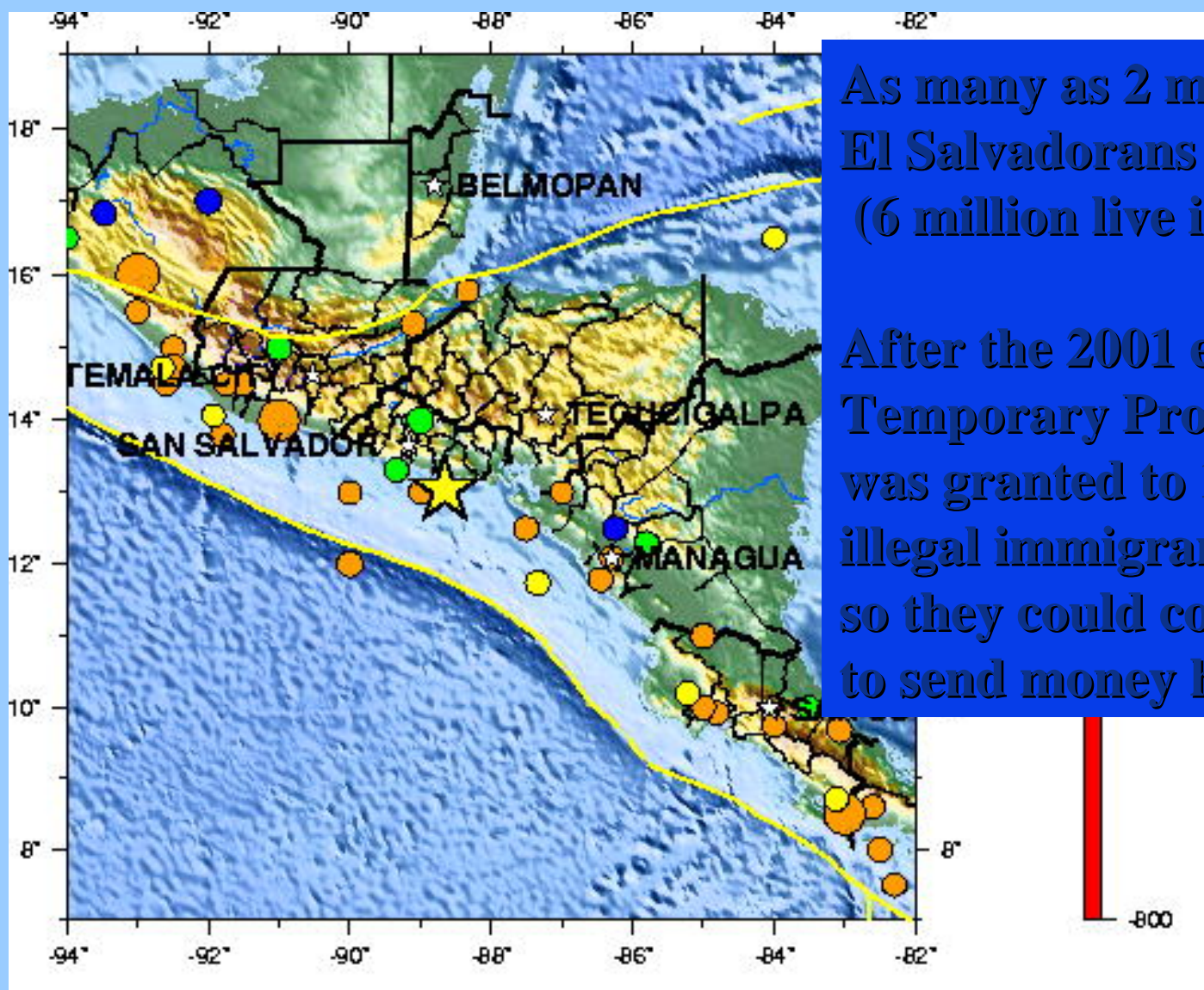
Remittances pay for natural disasters



Remittances from Bangladeshis rose by 18% in the aftermath of the 1998 Bangladesh floods.



Expatriate Gujaratis contributed hundreds of millions of dollars above their normal remittances, after the January 2001 Bhuj earthquake.



As many as 2 million El Salvadorans live in USA; (6 million live in El Salvador).

After the 2001 earthquakes, Temporary Protective Status was granted to 150,000 illegal immigrants, so they could continue to send money home.

Annually, \$3 billion are sent back by expatriates to El Salvador. This is about 15% of GDP, and larger than the annual Salvadoran government budget.

Ex-post disaster financing slows recovery

'Despite USAID's 170 million dollar disaster reconstruction program, reconstruction projects remain incomplete, and the US embassy in El Salvador has estimated that the projects will not be complete before 2008.'

Only 46% of the total number of houses destroyed or damaged had been reconstructed or repaired within five years of the 2001 earthquakes.'

Department of Homeland Security
US Citizenship and Immigration Services

**Employment Authorization documents
automatically extended to September 9th 2007.**

Breaking out of the disaster cycle

- ❑ In the absence of insurance, disasters can impose a severe long-term burden on senders of remittances.
- ❑ Through a global disaster insurance scheme, remitters can pool their risk to mutual benefit.



Just a couple dollars a month, (the cost of a beer), could buy catastrophe earthquake insurance cover for a migrant's family back home in a seismic undeveloped country.



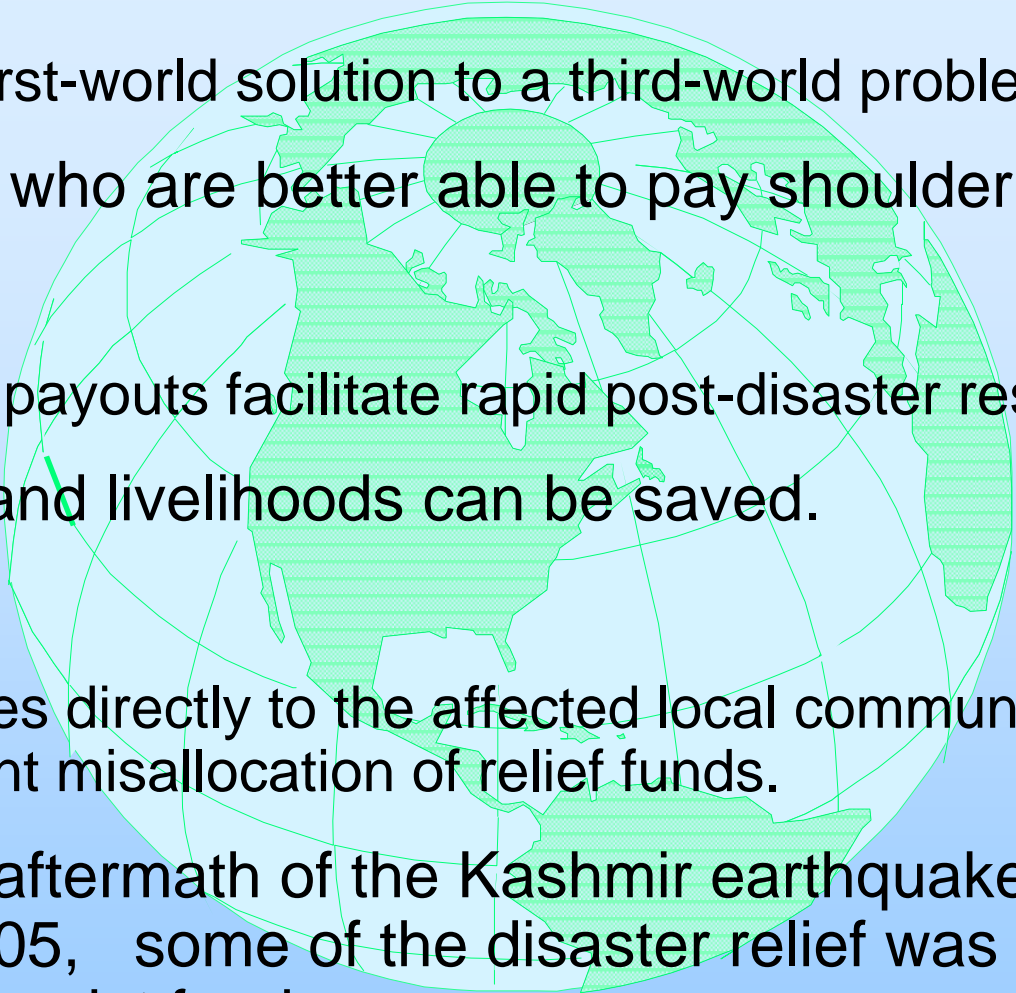
Simplified loss adjusting



**Kashmir:
8 October
2005**

For simplicity and affordability, coverage could be limited to severe damage, rendering the property uninhabitable, and the occupants homeless.

Benefits of diaspora disaster insurance

- 
- ❑ This is a first-world solution to a third-world problem.
 - Those who are better able to pay shoulder the risk.

 - ❑ Insurance payouts facilitate rapid post-disaster response.
 - Lives and livelihoods can be saved.

 - ❑ Money goes directly to the affected local communities, avoiding government misallocation of relief funds.
 - In the aftermath of the Kashmir earthquake of October 8th 2005, some of the disaster relief was channeled into terrorist funds.

Governments should encourage risk sharing

Most of the million ethnic Pakistanis in UK have community links with Kashmir.

It is in the interest of governments to encourage GLOBAL risk sharing among private citizens, to mitigate risk and ameliorate future post-disaster hardship.



Kashmir: 8 October 2005

TECHNOLOGICAL IMPLEMENTATION



AP

Recent developments in m-banking

- ❑ **November 2006:** Rabobank introduces Rabo Mobile: an integrated mobile banking and voice calling service.
- ❑ **January 2007:** The Gates Foundation provides a \$24 million grant to support mobile banking and other programs that use technology to expand access to financial services. The Consultative Group to Assist the Poor (CGAP) is the recipient of the 4-year grant.

Remittances is where m-banking will really be world-changing. In Latin America, less than 10% of remittance recipients have bank accounts. Some of the commission on remittances could be re-allocated to pay for micro-insurance.

VODAFONE AND CITIGROUP ANNOUNCE WORLDWIDE MOBILE FINANCIAL REMITTANCE VENTURE

12 February 2007

It builds upon Vodafone's recent successful pilot of the M-PESA mobile money transfer service by its affiliate in Kenya. It is anticipated that Vodafone customers in the UK will have the first opportunity to use the service to send money to Kenya on a trial basis and both parties plan to launch commercially, with a focus on Eastern European and Asian markets, such as Poland and India, in the near future.

'This agreement with Citigroup has the potential to create a step change in global remittance services and one in which the mobile service provider plays a central role.'

*Alan Harper,
Vodafone director for group strategy and new business*

Global payment system for remittances

Cell phone operators and banks are backing a scheme to allow those who work abroad to use their phones to send money home.

The pilot program, announced on February 12, 2007, by mobile operator trade body, the GSM Association, could make sending cash easier and cheaper for migrant workers.

The initiative is backed by 19 mobile firms representing over 600 million customers in over 100 countries.



Public and private sector support

'The program will resonate with governments because it makes the international payment market more transparent, encourages financial inclusion, reduces crime, and boosts the flow of hard currency into their countries.'

GSMA CEO, Rob Conway

3 GSM conference, February 13, 2007

'We are happy to partner with the GSM Association in this landmark project. We piloted a project in a small Himalayan village of Pithoragarh in India with Airtel and have seen the tremendous results in this unbanked village. This project has the potential of transforming the lives and economies across the globe.'

Mr. O P Bhat, chairman of the State Bank of India

Global expansion of the remittance sector

The initiative could double the number of recipients of international remittances to more than 1.5 billion and quadruple the size of the market from \$230bn to more than **\$1 trillion** by 2012, the GSMA says.



Increasing migratory pressures exacerbated by global warming

Larger international remittances to more and more recipients

Micro-payments for micro-insurance

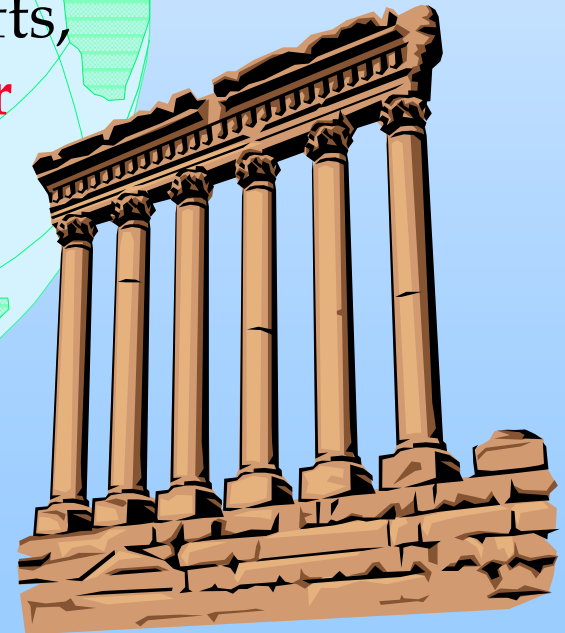
- ❑ Mastercard is providing international authorization, clearing and settlement for the GSM pilot program.
- ❑ Micro-insurance premiums could be paid by remitters via cell phone text messages. Alternatively, as with credit card transactions, there might be a procedure for insurance cover to be associated with designated remittance transactions.
- ❑ Claims could be settled through money transfers to local Mastercard merchants close to the region affected.

Could global telecoms take the initiative in facilitating m-insurance as well as m-banking?

Shouldering risk as a charitable contribution

‘By laying stress on the greatness of the calamity and its dreadful character, and by conducting themselves with the greatest seriousness and dignity, they had such an effect on cities, and especially on kings, that not only did they receive most lavish gifts, **but the donors themselves felt that a favour was being conferred on them.**’

**Polybius:
On the Rhodes earthquake
of 227 B.C.**





Source: Financial Times