



Framing “Loss and Damage”

*Prof. Dr. Joern BIRKMANN
UNU-EHS, Bonn, Germany*

birkmann@ehs.unu.edu

Increasing exposure of people and assets is one driver of disaster losses



**Pakistan floods, 2010
6 million left homeless**

Source: IPCC 2012

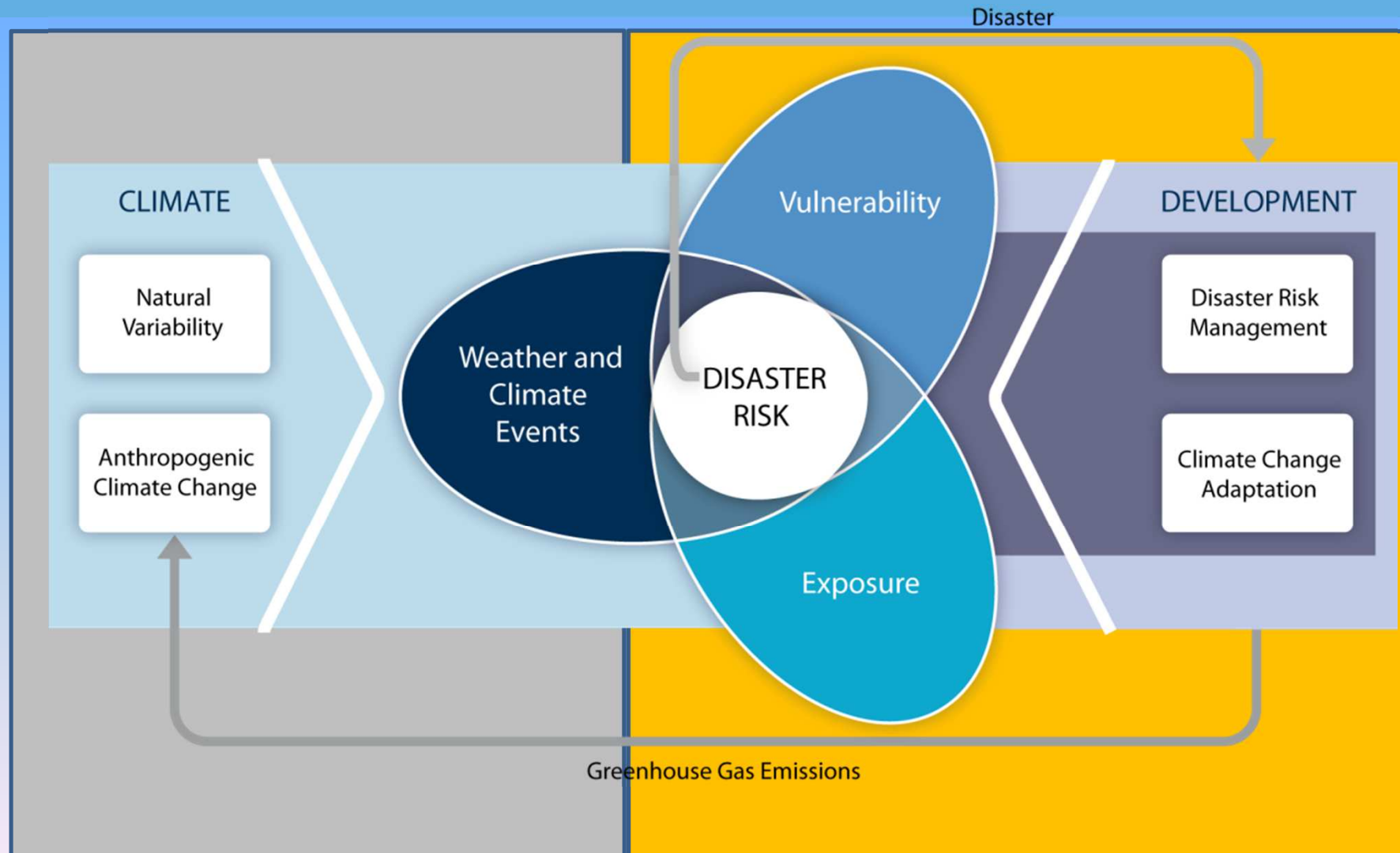
Increasing vulnerability, exposure, or severity and frequency of climate events increases disaster risk



UNITED NATIONS
UNIVERSITY

UNU-EHS

Institute for Environment
and Human Security



(Source: IPCC 2012, slightly modified by Birkmann)

WorldRiskIndex



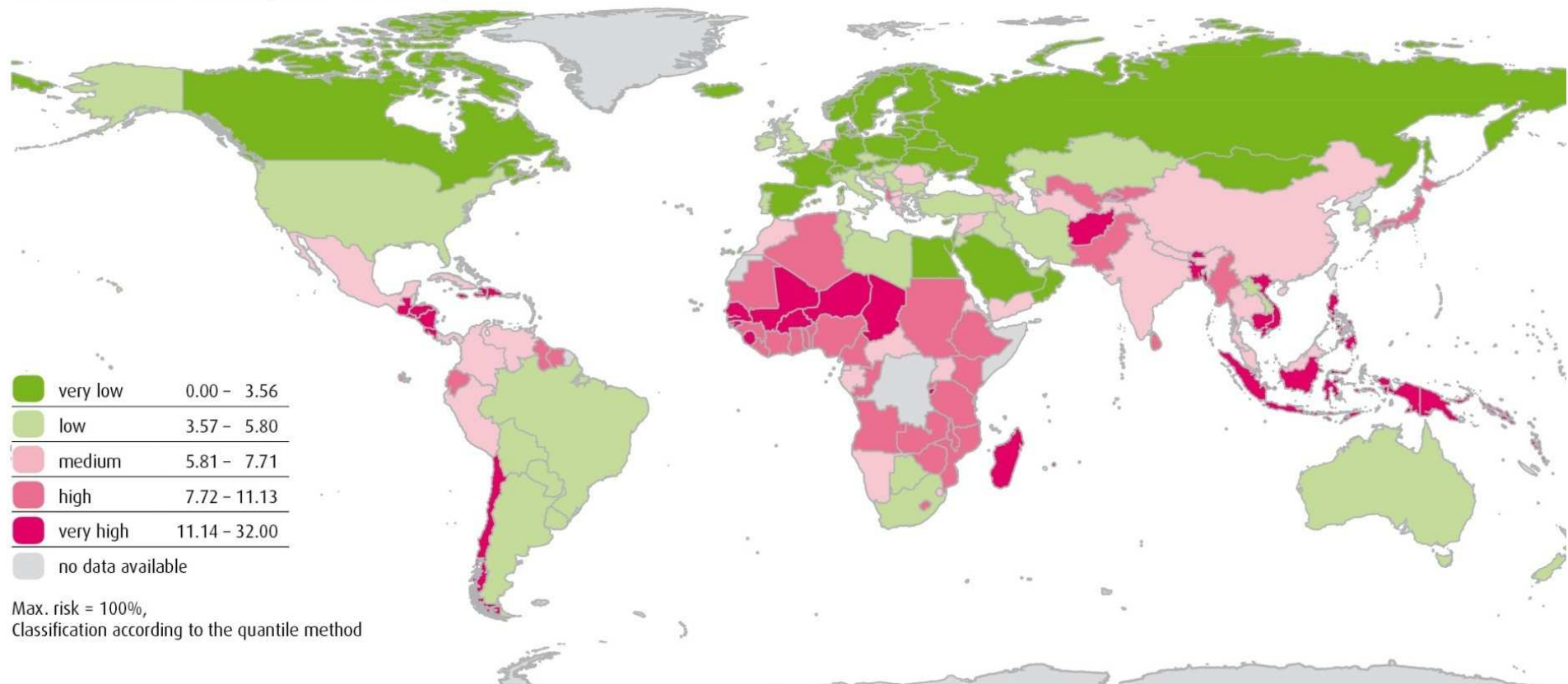
UNITED NATIONS
UNIVERSITY

UNU-EHS

Institute for Environment
and Human Security

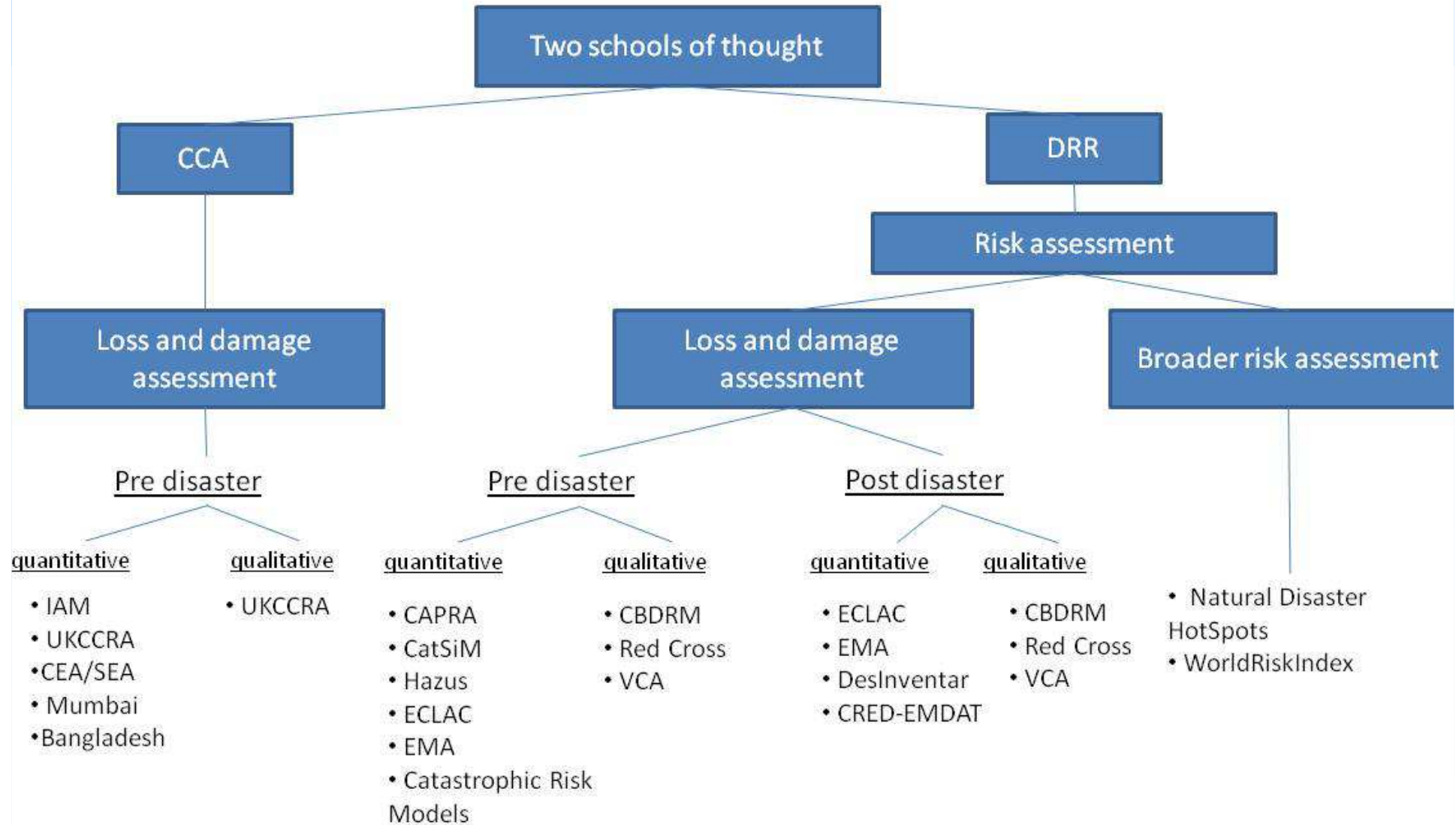
WorldRiskIndex

WorldRiskIndex as the result of exposure and vulnerability



Vietnam is one of the countries highly at risk due to climate change and natural hazards
– based on the WorldRiskIndex 2011 (Source: Birkmann et al. 2011)

Different schools and approaches



Remarks



UNITED NATIONS
UNIVERSITY

UNU-EHS

Institute for Environment
and Human Security

- Climate change adaptation and the management of loss and damage still often operate with different spatial, temporal and functional scales.
- Specific types of loss and damage types are very difficult to be addressed or compensated – e.g. large scale losses due to sea-level rise or salinization
- A broader understanding of loss and damage is needed that also takes into account intangible aspects of loss and damage (e.g. governance).
- Approaches have to consider both sudden-onset hazards or extreme events and creeping environmental changes
- Addressing loss and damage needs to be linked to adaptation strategies in the medium and long run.

birkmann@ehs.unu.edu,

Thank you very much

References

IPCC (Intergovernmental Panel on Climate Change) (2012) : Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation; Special Report of the Intergovernmental Panel on Climate Change; [Field, C.; Barros, V.; Stocker, T.F.; Qin, D.; Dokken, D.; Ebi, K.L. Mastrandrea, M.D. Mach, K.; Plattner, G.-K.; Allen, S.K.; Tignor, M. and P.M. Midgley (eds.)], Cambridge University Press, Cambridge

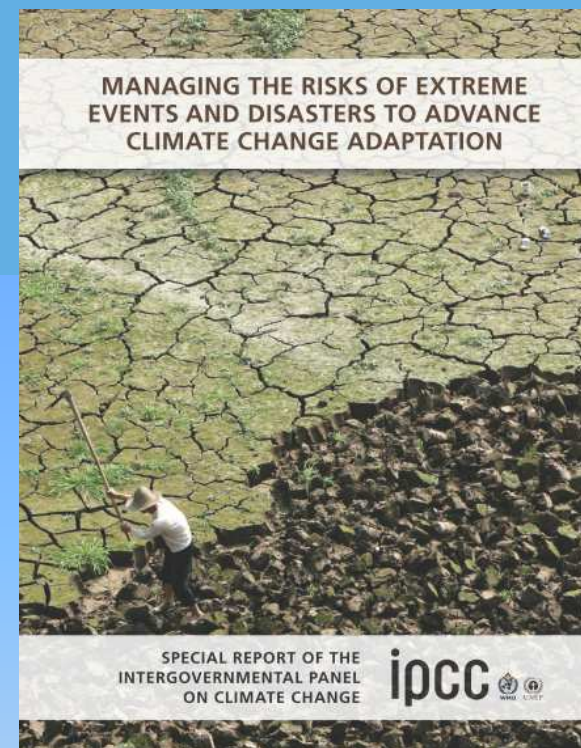
Birkmann, J.; Welle, T.; Krause, D.; Wolfertz, J.; Suarez, D.C.; Setiadi, N. (2011): WorldRiskIndex: Concept and Results. In: Alliance Development Works (ed.): The WorldRiskReport 2011, Berlin: 13-42

Birkmann, J; Garschagen, M.; Von Van, T.; Nguyen Thanh, B. (2012): Vulnerability, Coping and Adaptation to Water Related Hazards in the Vietnamese Mekong Delta. In: Renaud, F.G.; Kuenzer, C. (eds.): The Mekong Delta System: Interdisciplinary Analyses of a River Delta, Springer, New York: 245-289

Birkmann, J. (2011): First and Second-Order Adaptation to Natural Hazards and Extreme Events in the Context of Climate Change. *Natural Hazards* 58(2): 811-840;

Birkmann, J.; Buckle, P., Jaeger, J.; Pelling, M.; Setiadi, N.; Garschagen, M.; Fernando, N.; Kropp, J. (2010): Extreme Events and Disasters: A Window of Opportunity for Change? Analysis of Changes, Formal and Informal Responses After Mega-Disasters, *Natural Hazards* 55(3): 637-655

Garschagen, M.; Diez, J.R; Nhan, D.K.; Kraas, F. (2012): Socio-Economic Development in the Mekong Delta: Between the Prospects for Progress and the Realms of Reality, In: Renaud, F.G.; Kuenzer, C. (eds.): The Mekong Delta System: Interdisciplinary Analyses of a River Delta, Springer, New York: 83-132



PD Dr. Joern Birkmann
Head of Section

**United Nations University
Institute for Environment
and Human Security**
Bonn, Germany,

birkmann@ehs.unu.edu

www.ehs.unu.edu