

# LOSS AND DAMAGE – DISASTER RISK REDUCTION MESSAGES FOR COP19 AND BEYOND

November 2013



In 2011, the UN Global Assessment Report on Disaster Risk Reduction (GAR) estimated that over 80 % of economic disaster losses are attributed to weather-related events<sup>i</sup>. Such events can be the most important reason for impoverishment, threat of livelihoods and decelerated progress in poverty reduction. Given that climate change is likely influencing the frequency and intensity of such events, disaster risk reduction is part of climate change adaptation. In order to increase efforts on adaptation and to clarify financing mechanisms and institutional settings, the work programme on loss and damage of the UN-Framework Convention for Climate Change (UNFCCC) will be at the core of negotiations during COP19 in Warsaw.

However, a lack of adequate assessment approaches and data on climate impacts limits our knowledge and understanding of appropriate prevention and risk management measures. In comparison to other scientific fields related to the climate system, data on climate impacts are still scarce and methods on assessing losses and damage are in their infancies. Only a few data sets, e.g. EM-DAT<sup>ii</sup>, are publicly accessible and data are subjected to various biases<sup>iii</sup>. The lack of reliable, consistent and comparable data is seen as a major obstacle for effective and long-term loss prevention<sup>iv</sup>.



i See <http://www.preventionweb.net/english/hyogo/gar/>  
ii See <http://www.emdat.be>  
iii Gall, M., K. Borden, S.L. Cutter (2009) – BAMS 90(6): 799–809.  
iv E.g. Changnon, S.A. (2003) – Natural Hazards 29: 273–290.  
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# DISASTER RISK REDUCTION MESSAGES FOR COP19

Accurate, comparable and consistent data on disasters are required

- to assess the influences of climate, population growth, land use and policies on trends in losses and damage<sup>i</sup>,
- to improve risk assessment methods by calibrating and validating loss models with real data<sup>ii</sup>,
- to identify drivers and root causes of disasters (disaster forensic)<sup>iii</sup>,
- to set priorities between competing demands for national and international budget allocations<sup>iv</sup>,
- to evaluate policy successes and failures on the basis of trends and spatial patterns of damage,
- to think about new policies (insurance, climate policies),
- to set priorities of research funding as well as
- to evaluate contributions of science to real-world outcomes<sup>v</sup>.

Therefore, enhanced efforts to collect loss data and the development of transparent methodologies and standardized datasets have been constantly demanded, also in the climate change arena<sup>vi</sup>.

**1.**  
Enhance efforts  
to monitor  
climate-related  
extreme events, their  
direct, indirect and  
intangible impacts  
and costs

Parties of the Convention should be further encouraged to establish national (and regional) disaster-related accounting systems. Starting from the European Coordination Action “Costs of natural hazards” (CONHAZ)<sup>vii</sup>, such systems should ideally include all relevant cost categories including costs for response and prevention (see Fig. 1). Hazard information should be clearly linked to data on damage and losses, preferably on an event basis with sub-national spatial resolution. Data collection and provision should be established as a continuous task and enforced by national legislation as (potential) data providers are often non-governmental entities, e.g. with regard to infrastructures. To ensure quality, data collection should be based on transparent rules and methodologies. The set-up of such a system can be done stepwise, but data gaps should be closed gradually. Needed research efforts should be systematically funded and good/best practise examples should be studied.

**2.**  
Consider disaster risk  
reduction and climate  
change adaptation in  
investment decisions

The risk management cycle offers a valuable framework for enhancing disaster resilience. Therefore, investment decisions should be combined with an integrated risk management as depicted in Fig. 1. The process starts with 1) a systematic risk identification and analysis, which is followed by 2) an assessment and prioritisation of risks as well as 3) decisions on efficient and effective prevention measures and 4) their implementation. A final step includes 5) monitoring and reporting which may result in a reassessment of risks and measures. Risk management in this sense is an iterative process that can adapt to changing boundary conditions.

i Downton, M.W., J.Z.B. Miller, R.A. Pielke Jr. (2005) – Natural Hazards Review 6: 13–22.

ii De Groeve, T., K. Poljansek, D. Ehrlich (2013): Recording Disaster Losses. Report, JRC83743, EUR 26111 EN.

iii DKKV (Ed. 2012): Detecting root causes of disasters. DKKV Publication Series 48, Bonn.

iv Guha-Sapir, D., R. Below (2002): The quality and accuracy of disaster data. Working paper, CRED, Brussels.

v Downton, M.W., R.A. Pielke Jr. (2005) – Natural Hazards 35: 211–228.

vi Huq, S., E. Roberts, A. Fenton (2013): Loss and damage. – Nature Climate Change 3: 947–949.

vii Meyer, V. et al. (2013) – NHESS 13: 1351–1373.

# DISASTER RISK REDUCTION MESSAGES FOR COP19

Parallel to the negotiations on a binding treaty of the UNFCCC that is expected to be adopted at COP21 in Paris, France, in 2015, the UN General Assembly will convene in Japan to agree on a post-2015 Hyogo Framework for Action that aims to further improve disaster risk reduction worldwide. In the same year, the Millennium Development Goals (MDG) are supposed to be replaced by so-called Sustainable Development Goals (SDG). If disasters frequently destroy livelihoods and properties, in extreme cases even threatening the fundamentals of cultural identities, sustainable development is hard to achieve. Therefore, a consistent treatment of aspects of disaster risk reduction in these three processes is a prerequisite for wealth and development.

**3.** Ensure coherent and consistent treatment of disaster risk reduction in ongoing international processes

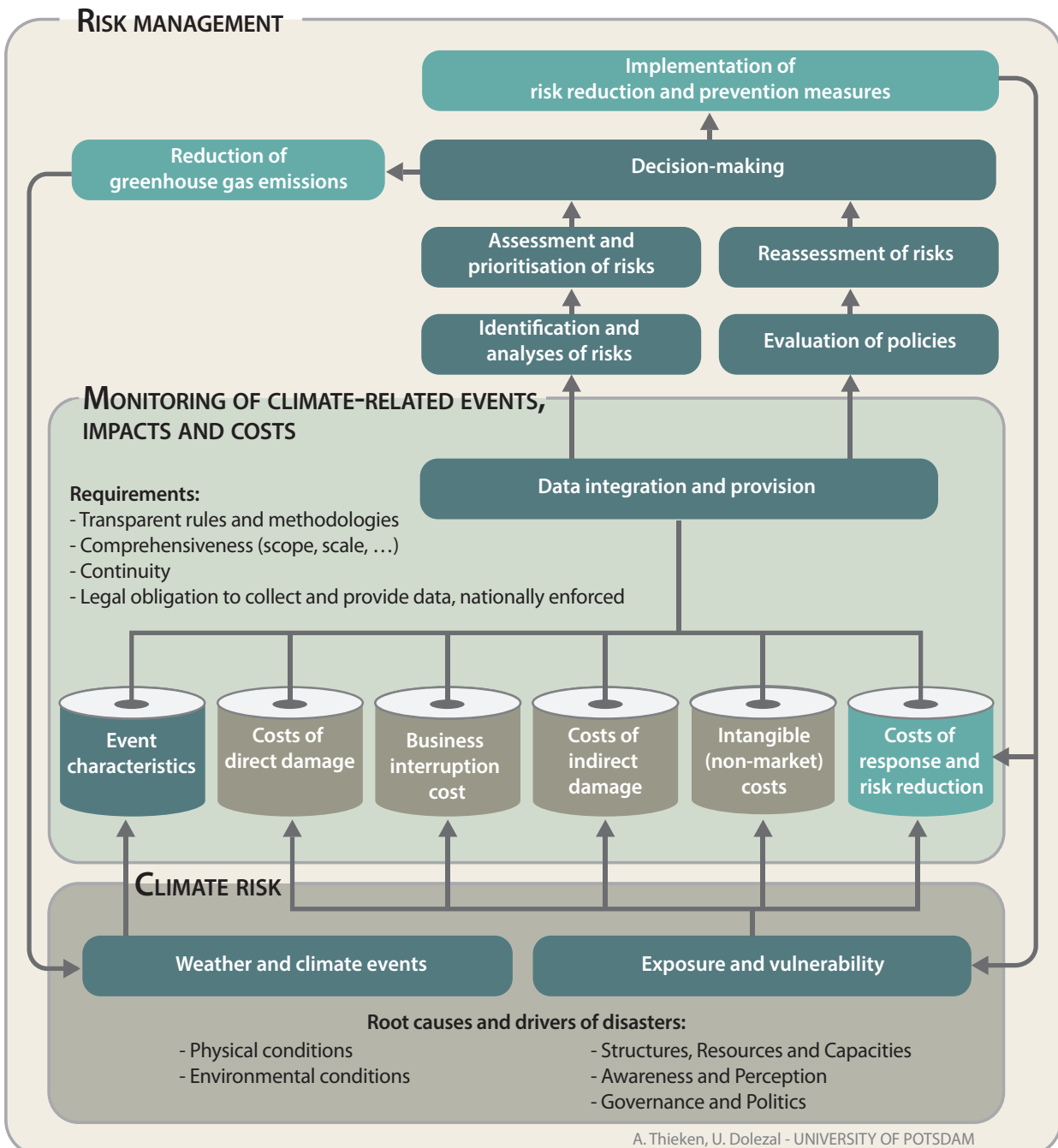


Fig.1: Disaster risk management and monitoring.

# GERMAN COMMITTEE FOR DISASTER REDUCTION



The German Committee for Disaster Reduction (DKKV) is Germany's National Platform in the frame of the International Strategy for Disaster Reduction (ISDR). DKKV is working to ensure that policy-makers, industry and administration translate the findings of disaster research into practical measures. Its aim is to transcend the boundaries between scientific disciplines and utilise the benefits of integrated risk management. Members of DKKV are from politics, administration, science, business, media and relief organisations. Synergies from different fields are pooled by an operational advisory board as well as a scientific advisory board.

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