

# Daniel Werner Kull

## Present Contact Details

International Institute for Applied Systems Analysis (IIASA),  
Risk and Vulnerability Program (RAV),  
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Nationalities: Switzerland and USA (naturalised)

Member: SDC Swiss Humanitarian Aid Unit (SHA), Prevention and Preparedness Group

## Education

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*Master of Science*, Water Resource Engineering

University of California at Davis, USA, June, 1996.

Thesis: "A Test Application of a New Procedure Using Radar Data and Digital Elevation Models with an Adapted Form of Clark's Unit Hydrograph Technique"

*Bachelor of Science*, Civil Engineering, cum laude

Union College, Schenectady, NY, USA, June 1994.

## Work Experience

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*International Institute for Applied Systems Analysis (IIASA)*

Risk and Vulnerability Program, Laxenburg, Austria

Research Scholar

6.2007 – present

Applied research in disaster risk financing, insurance and the economics of climate change and adaptation.

- Management of IIASA's involvement and technical advisory to the DFID-funded *Risk to Resilience Project*, investigating the cost and benefits of disaster reduction and climate change adaptation in India, Pakistan and Nepal (<http://www.climate-transitions.org/>).
- Management of IIASA's involvement and technical advisory to the ProVention/AIDMI *Evaluation of the Impact of Disaster Micro-insurance on the Insured* study in South and Southeast Asia.
- Technical advisory for DFID ORCHID (*Opportunities and Risks of Climate Change and Disasters*) methodology development in India, focusing on economics and cost-benefit analysis.
- Technical advisory for DFID EastWest China (*Establishing an Adaptation Screening Tool for the Water Sector*), focusing on economics and cost-benefits analysis.
- Technical inputs to the EU's ADAM project (*Adaptation and Mitigation Strategies – Supporting European Climate Policies*), focusing on economic analysis (<http://www.adamproject.eu/>).

*ProVention Consortium*

Hosted by the IFRC, Geneva, Switzerland

External Consultant

2.2007 – 3.2007

- Provided expert support for the 2007 ProVention Forum, held in Dar es Salaam, Tanzania. This included development and moderation of the risk transfer thematic session.
- Updated and enhanced the ProVention web pages on risk transfer.

*Swiss Agency for Development and Cooperation (SDC)*

Swiss Humanitarian Aid Unit, Dushanbe, Tajikistan

Senior Technical Advisor

5.2006 – 12.2006

Institutional development and provision of technical expertise to the *Centre of Competence for Disaster Reduction (CCDR)*.

- Institutional development and advisory of CCDR management.
- Technical advisory for the CCDR Consulting Unit in completing natural hazard, vulnerability and risk assessments, as well as risk reduction studies.
- Development of professional technical training courses under the Educational Unit.
- Development of physical and virtual Resource Centre for the public.

Technical advisory to the United Nations Development Programme (UNDP) Disaster Risk Management Programme (UNDRMP).

- Review of current status of implementation and recommendations for ways forward for the Information Management and Analytical Centre (IMAC) of the Tajik Ministry of Emergency Situations.
- Technical support for project implementation.

*United Nations International Strategy for Disaster Reduction (UN/ISDR)* Technical Advisor  
Africa Regional Outreach Office, Nairobi, Kenya 8.2005 – 3.2006

External consultant under the *Evaluation and Strengthening of Early Warning Systems in Countries Affected by the 26 December 2004 Tsunami Project*. Provided support for implementation of the project in the Africa region, as well advisory services for UN/ISDR issues of global concern.

- Technical advisory for national insurance development for fishermen and farmers in the Seychelles.
- Author and editor of UN/ISDR publication on microfinance for disaster reduction.
- Thematic input, organisational assistance and part facilitation for the workshop “Disaster Risk Mitigation: Potential of Micro Finance for Tsunami Recovery,” New Delhi, India.
- Technical input and reporting for various international workshops/conferences.
- Co-producer of biannual magazine “Disaster Reduction in Africa: ISDR Informs”, Issue #6.
- General technical advisory for the UN/ISDR-Africa Outreach Programme office.

*ProVention Consortium* External Consultant  
Hosted by the IFRC, Geneva, Switzerland 7.2004 – 2.2005

- Assumed management and project roles/responsibilities of Senior Officer during his absence.
- Developed work strategy in the area of financial risk transfer and private sector engagement for disaster management in developing countries.
- Represented ProVention at the UN World Conference on Disaster Reduction, Jan. 2005, in Kobe, Japan.
- Organised the conference “Solidarity and Opportunity: The Potential of Insurance for Disaster Risk Management in Developing Countries” and the workshop “Experiences in Micro-Insurance” held 21-22 Oct., 2004, in Zurich, Switzerland.

*Swiss Reinsurance America* Flood Specialist  
Chief Underwriting Office Risk Hub, Armonk, NY, USA 3.2002 – 6.2004

Sole flood expert for the Americas Division.

- Set flood premium levels, as well as developed flood analysis and rating tools for Latin America and the United States for both large portfolios as well as single risks.
- Supported and trained underwriters in flood, cyclone, and earthquake risk analysis and pricing.
- Served as liaison between Division Americas' natural hazard experts and the country office of Canada.
- Improved the wind and hail rating model for Canada and performed annual catastrophe perils market review of Canada.

Instructor at the International Water Management Course (July, 2003) (<http://www.iwmc.ch>).

*Swiss Reinsurance Company* Flood Specialist  
Catastrophe Perils, Chief Underwriting Office, Zürich, Switzerland 12.2000 – 2.2002

Provided support and training to underwriters for flood risk analysis and pricing.

- Developed a tool to analyse entire countries/large-basins for flood risk to insurance portfolios.
- Performed post-event loss analyses.
- Compiled and disseminated summaries and updates during large flood events.

Provided guidance for analyses of natural hazard risks for industrial facilities and infrastructure.  
Assisted in company-wide accumulation and capacity control.

*Swiss Federal Institute of Technology (ETH), Zürich, Switzerland* Hydraulic engineer  
Laboratory for Hydraulics, Hydrology and Glaciology (VAW) 1.2000 – 11.2000  
Inst. for Hydromechanics and Water Resources Management (IHW) 5.1997 – 12.1999  
Laboratory for Hydraulics, Hydrology and Glaciology (VAW) 11.1996 – 5.1997

Member of a team of engineers, hydrologists, and geologists that performed hydraulic and hydrologic studies for government and private organisations. Responsible for various aspects of hydrologic, fluvial hydraulic,

sediment transport, and flood management studies, including computer simulation, physical modelling, data interpretation, project management, and report development.

*Hydrologic Engineering Center (HEC)*

Research Division, Davis, CA, USA

Hydraulic Engineer

9.1994 – 11.1996

Performed radar-based rainfall-runoff simulation studies. Assisted on various facets of flood-routing studies. Authored a comprehensive review on the state of knowledge in wetlands hydrology.

*US Army Corps of Engineers*

Plan Formulation Department, San Francisco District, CA, USA

Hydraulic Engineer

summer 1994

Developed an automated spreadsheet to perform economic analyses of coastal flooding.

**Publications & Lectures**

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Kull, D. (2006). "Chapter 2: Financial Services for Disaster Risk Management for the Poor". in *Micro-Finance and Disaster Risk Reduction*, Mihir Bhatt and P.G. Dhar Chakrabarti, eds., Knowledge World, Delhi, India, pp 39-64.

Kull, D. (2006). *Connections Between Recent Water Level Drops in Lake Victoria, Dam Operations and Drought*. Prepared for the International Rivers Network, Berkeley, USA.

Peppiatt, D. and Kull, D. (2005). "Transferring Risk through Insurance." *Know Risk*, Tudor Rose (Leicester, UK) and UN/ISDR (Geneva, Switzerland).

Lecturer, CENAT (Natural Hazards Competence Centre) Post-Graduate Course on Risk & Security, Module 8: Natural Hazards, Davos, Switzerland, Oct. 25, 2004.

Kull, D. (2004). "Global Trends in Flood Losses and the Insurance Industry." *World Meteorological Organisation Bulletin*, Vol. 53, No. 1, WMO, Geneva, Switzerland.

Kull, D., et al (2003). Dams. *Swiss Re Focus Report*, September.

Kull, D.W. and Feldman, A.D. (1998). "Evolution of Clark's Unit Graph Method to Spatially Distributed Runoff." *Journal of Hydrologic Engineering*, Vol. 3, No. 1, ASCE, Reston, VA.

**Languages**

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English: mother tongue

German: fluent

French: basic

**References furnished upon request.**