



3rd International Disaster and Risk Conference IDRC Davos 2010

30 May – 3 June 2010

## *MAJOR CONFERENCE OUTCOMES*

*"Risks, Disasters, Crisis and Global Change – From Threats to Sustainable Opportunities"*

### *IDRC Davos 2010 – Overview*

#### **Conference Topics**

The International Disaster and Risk Conference IDRC Davos 2010 once more subscribed to the overall motto "From Thoughts to Action". Problems of risk and disaster science, risk prevention, resilience, disaster preparedness, risk management and governance were discussed within the context of sustainable development and global change, i.e. the dynamics of population pressure and mobility, the various facets of globalization, economic and financial crises, climate change, environmental degradation and erosion of ecosystem services, health and food issues, and the shifts in ethical, cultural and behavioural patterns. Urban risks and the issue of very large-scale disasters and mega-catastrophes were further crucial topics discussed in depth and with a variety of stakeholders at IDRC Davos 2010.

#### **Featuring an Integrated Risk Approach**

IDRC Davos 2010 with its motto "Risks, Disasters, Crisis and Global Change – From Threats to Sustainable Opportunities" was another milestone toward the integration of the ever more complex and interwoven portfolio of risks, security and disaster related topics, themes and trends. Moreover, the conference demonstrated that the



Badaoui Rouhban, UNESCO

community of risk and disaster experts, scientists, managers and practitioners has experienced itself a fast process of integration and cross-fertilization over recent years, to which the IDRC conference series has made a very significant contribution. IDRC Davos 2010 impressively showed that the globally growing number of crises and disasters, and the more and more intricate, complex and multi-faceted nature of risks require an innovative, integrated and problem-oriented approach to risk and disaster knowledge and management. If humanity is to steer our planet, its biosphere and human civilization into a more sustainable future, the issues of risk, security, development and sustainability ought to be integrated – in science,

policy, management, and business practice. It is only through a holistic perspective that the complexity of the risk theme and its entire phenomenology can be understood, addressed, conceptualized, and tackled. At the occasion of IDRC Davos 2010, GRF has successfully organized within its Risk Academy a continuous education course on “Integrated Risk Management” that provided a wide overview over the components of integrated risk management, including vulnerability and critical infrastructure assessment, risk concepts, intervention strategies as well as response and recovery plans.

### A Global and Interdisciplinary Conference

This philosophy inspired IDRC Davos 2010, which – under the auspices of the Global Risk Forum GRF Davos – gathered some 850 conference participants from 100 countries around the world in a unique setting and atmosphere. Numerous distinguished experts, officials from governments and international organizations, practitioners, media representatives and high-ranking delegations from The Gambia, Uganda, and Republic of the Congo, from the I.R. Iran, from P.R. China, India, Bangladesh, Indonesia, just to name a

few, actively participated at the conference and brought their knowledge and experience to bear highly on the discussions. Thirteen plenary sessions, around 50 special and parallel sessions, side events, poster sessions, exhibitions, workshops, training courses and cultural events provided the frame for this worthwhile undertaking. Looking back to the first IDRC conference in 2006, it is remarkable to realize how far the formerly fragmented, global risk and disaster community has grown into one distinctive body of excellence.

### Interactive Knowledge Platform

Following its motto, and the spirit and notion of an integrated and holistic perspective, the conference resulted in a number of tangible thematic and institutional outcomes. GRF has collected a very rich and concentrated variety of ideas, actionable items and themes presented at IDRC Davos 2010 and transformed them into an interactive portfolio of presentations, recorded plenary sessions and video statements that allow for an enriched assessment of the various outcomes of IDRC 2010 ([www.idrc.info](http://www.idrc.info)).

## *IDRC Davos 2010 – Thematic Foci & Outcomes*

### Towards an Integrated Perspective on Risk

In an age of unprecedented global change and inter-dependence, an integrative approach involving all relevant kinds of risks and risk clusters, disciplines and stakeholders has to be applied and taken throughout the entire risk cycle in order to be able to identify viable solutions and promote good practice - whether in risk preparedness and reduction, disaster management, or adaptation to climate change. However, although this view is now widely accepted, there is also consensus that sufficient knowledge transfer and full integration of sectors, stakeholders and especially end-users involved in risk reduction and crisis management is still lacking. IDRC 2010 has therefore taken on the challenge of not only integrating the various

themes and topics around the risk and disaster agenda, but also the large variety of relevant communities, networks and stakeholders.



Francis Musa Eweru, Minister, Uganda

Among other issues experts have emphasized that for a holistic approach the capacity of an education system as a whole needs to be considered in order to get DRR integrated into education. The main goals are to live safely and prevent injuries, to prevent interruption of education and to make resilience populous.

### Sustainable Development & MDGs

IDRC 2010 also for the first time added the development dimension to the international risk and disaster discourse. Most notably, the critical questions of how to enhance the implementation of the Millennium Development Goals, and that of what should happen after their expiration in 2015, enriched the conference debate and showed that poverty, famine, diseases, lack of education, forced migration and under-development pose clear risks to society and undermine its resilience. It also became obvious that transforming world economy on a sustainable basis, i.e. greening business and economic models are crucial, and that complete life cycle analysis of products and services should be mandatory.

Stakeholders from different sectors have agreed that the financial crisis has a dramatic impact on the progress of the MDGs and thus especially addresses the poor.

### Climate Change Mitigation, Adaptation & Policy

The conference linked the climate change theme with questions of financial markets, sustainable investment strategies and insurance schemes, and strived to add coherence to the current discourses on mitigation, adaptation and policy responses. In particular, new investment opportunities in clean energy and other mitigation strategies were discussed in context of developing countries, thus linking this agenda with the resilience and adaptation discourse. Moreover, emphasis was laid on innovative approaches to more North-South balance in global climate negotiations.

The need of building up a climate change adaptation database has been stressed. In this context several experts have pointed out the importance of integrating the local perception into

risk assessment. Whereas good data plays a major role in this undertaking, bad data quality, accuracy or viability should nevertheless not prevent the start of such a project.



*"From Brain Drain to Brain Circuit"*

Carlo Jäger, PIK Potsdam (left) together with Peijun Shi, Vice-President BNU Beijing.

### Ecosystems, Services and Natural Resources

As to the absence of genuine compensatory measures, a rule of action should be to prevent the final ruination of natural assets. Making goods on the global biological diversity easily and freely accessible to the public seems to be a valuable assistance in the preparation and prevention of accidents or major risks. Investment in low-cost public knowledge needs to be made so that the individual and collective decision-making may be taken to a broader and more versatile informed level. Whereas the consequences are very real, the individual determination of cause and effect on individuals is often virtually impossible. Neither courts nor insurance to those affected fully indemnify for losses due to irreversible destruction of ecosystems and their natural resources.

Not only are ecosystems at risk, as seen in different conference presentations there is also great potential of developing ecosystem solutions for DRR. There are ecosystems such as mangroves that can protect communities from natural disasters. Experts have however warned that the potential of such solutions is limited and should not be overvalued.

### Desertification, Land Degradation & Drought (DLDD)

The topics of desertification and land degradation, loss in biodiversity, natural resources, food and

ecosystem services were analyzed and discussed at length – a novelty at IDRC conferences – and woven into the conceptual matrix of risk analysis and assessment, disaster preparedness and mitigation strategies. Within this context, due attention was given to the dimensions of energy options and human security, and their relation with environmental change. One of the outcomes was pressing evidence that DLDD is no longer an issue of the developing world only, but equally affects industrialized countries, a fact that will be further aggravated by climate change.

Desertification and lack of natural resources will cause massive migration. Therefore a variety of speakers at IDRC Davos 2010 have called for solutions for the management of drylands. As such one project has been presented that demonstrates the combat against desertification by planting suitable crops that furthermore provide the local farmers with sustainable jobs.

It has further been stressed that land use practice and territorial governance play an equally important role in the management of drylands since it is much cheaper to invest in prevention than in emergency measures.



### Mega Catastrophes and Natural Disasters

The Indian Ocean Tsunami, Hurricane Katrina, the recent earthquakes in Haiti, Chile and China, or the recent landslides in Uganda are examples of large scale natural hazards that have revealed the existent gaps in disaster preparedness, disaster response and disaster recovery worldwide. The oil spill in the Gulf of Mexico and its consequences on the environment and human livelihoods, or the

volcanic eruption on Island with huge impact on the travel industries also reveal gaps that draw significant challenges to the International Community. How can these gaps be bridged in an effective manner? What are examples of good practices and successful cooperation? Distinguished experts elaborated on the gaps in large-scale disaster management and drew upon good practices to translate those weaknesses and opportunities into successful practice. Conference participants have advocated for a decision framework that takes the possibilities of low-probability large-scale events into account. From extraordinary catastrophes as the Oil-Spill in the Mexican gulf lessons need to be learned on how to effectively respond to such disasters in order to become more receptive for alternative energies and other solutions.

### Critical Infrastructure

Critical infrastructure buildings, components and services, such as among others energy, water and food supply, sanitation, hospitals, schools, transportation by land, air and water, IT and communication technologies are essential assets for societies and economies to function. An impressive array of international experts demonstrated the significance of critical infrastructure buildings, components, technologies and services, and that of ICT and technological innovation also for the fields of risk analysis and assessment, risk prevention, disaster preparedness, response and relief strategies.

Experts have recommended reorganizing infrastructure protection and information systems on a global level with a top down approach that adjusts to local target stakeholders. Such a global system has to integrate co-operations of suppliers, governments, operators and other stakeholders in public private partnership and standardizes terminologies and methodologies.

### Information and Communication Technologies

Information and Communication Technologies (ICT) have an enormous impact on the way public and private actors gather and share information, regulate access to relevant knowledge, and



communicate with each other. Effectively applied within society, government, or aid organizations, ICT can significantly contribute to risk reduction and disaster management (early warning, crisis management, rapid disaster loss estimates etc.), and can serve as a tool to cope with poverty and foster sustainable development. On the other hand, the growing dependencies of public governance and private sector operations on ICT have generated new types of risks that potentially undermine security, privacy and stability in many areas.

There was consensus among IDRC participants that current technology (internet, media, mobile phone, etc.) is a useful tool to increase the speed of responding and decrease error in disaster response.

Practitioners and experts reported that early warning systems have evolved a lot during the last three years. Today an overview about the areas affected and a damage assessment can be obtained in about 30 minutes after the disaster. The key problem remains to successfully warn the right group of people about the potential threat just in time. This legal and responsibility issue is an institutional and not a technical problem that has to be solved. Data and information are useless if they are not transferred into knowledge which leads to action.

#### Humanitarian Aid & Logistics

The year 2010 started very sadly with a number of terrifying earthquakes in Haiti, in Chile, and in China, and with devastating landslides in Uganda, all together causing far more than 300'000 victims, and revealing how crucial humanitarian logistics are to provide timely and adequate support for rescue operations, and the delivery of food, water, medicaments, etc. The necessity for a much closer partnership between the public, civil and military sector for humanitarian aid became obvious.

Admiral James Stavridis, an internationally renowned expert stated that there are three major challenges of humanitarian logistics in the 21st century. (1) Understanding of the culture,

language, history and geography of all areas in the world, as humanitarian disasters are happening all over the world and different regions need different approaches. (2) New technologies are important for improved humanitarian logistics, e.g. clean water and desalination systems or space technology for remote sensing. (3) Capacity building and dialogue. The creation of better and established professional trainings for humanitarian logistics personnel and workshops is important, as well as continued discussion and for an increase in knowledge exchange amongst experts to gain collective knowledge.



Martin Willhaus, Kühne Stiftung

#### Urban Risks, Human Security & Mobility

IDRC 2010 put emphasis on the various feedbacks and inter-linkages between population dynamics in a globalized and inter-dependent world, such as aging societies, reproductive health and population pressure, changing mobility and forced (environmental) migration, and the ever growing agenda of human security – expressed as freedom from want and freedom from fear. A specific role was allocated to the dynamics of rapid urbanization and megacities, and the challenges that these pose to sustainable development and risk management.

As stated repeatedly at IDRC Davos 2010, education training is of utmost importance for risk awareness raising activities. In cities also, urban planning is an important tool to mitigate risks by preventing people from settling down in risky zones and thus reduce their exposure to threats. Challenges in implementing land use-plans are to integrate the general public and different stakeholders into the decision making process.

### Risk, Culture, Ethics & Behavioural Change

The dimension of ethics, culture and behavioural change for effective risk reduction and disaster management, and their critical function toward a sustainable future was elaborated in a public Open Forum. Ultimately, the conference converged in a rich debate on the need for integrated risk governance and the implications of such an innovative approach for all sectoral and topical areas dealt with in the many sessions and panels.

It has been pointed out that the loss in biological and cultural diversity of this planet has reduced the resilience of the environmental system that we depend on. Such a trend is destructive in the long term especially in combination with high population growth. But for political and cultural reasons this issue is not addressed adequately.

### Global Risk Governance

Global governance has become a key term for an effective handling of crucial issues of global concern through collective action and stakeholder participation. It is time to apply the global

governance concept to the area of risk and disaster affairs. Important debates were focusing on pathways to successfully integrate many still fragmented policy frameworks, and on questions of multi-level and adaptive governance of risks. Among others, the question arose if a global convention on risks and security should be established to provide a more effective and overarching legal framework to address a multitude of “civilization-borne” risks and disasters, possibly within the context of re-organizing the international architecture for sustainable development.

Global risk identification programmes are seen as a useful tool to improve the quality and dissemination of risk information so it can be used in the decision making process. Standardization of the risk assessment process as well as the definitions and terms is thus recommended. The lack of global guidelines and the end-users needs for an efficient information technique is still a problem in many IDRC participants’ opinion.

## IDRC Davos 2010 – “From Thoughts to Action”



Afsana, Wahab

IDRC Davos 2010 Volunteer, Center for Woman & Child Development, Bangladesh

### GRF Specific Outcomes & Follow-on Activities

In line with GRF's credo "From Thoughts to Action" the 3<sup>rd</sup> International Disaster and Risk Conference has resulted in a variety of new partnerships, campaigns and concrete follow-on activities for GRF and other institutions. GRF Davos will increase its effort to add value to the UN through ECOSOC and the Commission on Sustainable Development (CSD). The forum will furthermore increase and intensify its collaboration with several UN conventions, funds and programmes, UN specialized agencies, the World Bank, regional development banks, governments and the European Commission.

### United Nations MDG Summit, New York, September 20 – 22, 2010

2010 marks an important year. With the review of the Millennium Development Goals, ten years on from the start in 2000, taking place in September in New York in the form of a high-level special session of the UN General Assembly, new momentum could be given to global sustainability governance and sustainable development. GRF Davos will ensure that the outcomes of IDRC Davos 2010 will be communicated and dealt with at this worthwhile summit, and become part and parcel of the discourse and agenda launched in New York.

### The Rio Earth Summit in 2012

In 2012, the international community will celebrate the 20th anniversary of the United Nations Conference on Environment and Development (UNCED), called "The Rio Earth Summit". Since Rio, international negotiations on sustainability, risk and crises have experienced backlashes, the most recent one being the Copenhagen Climate Summit of December 2009 – while the degradation of natural resources and ecosystem services, loss of biodiversity, dangerous interference with the world climate, poverty, famine and lack of health resources continue to be on the forefront.

IDRC 2010's outcomes will add direction and inspiration toward the Rio +20 Summit scheduled for 2012. It is critical to use the period up to 2012 for a renewed global effort towards integrating the still largely fragmented agendas of environmental sustainability, economic development and human security into one consistent regime. Such integration can be facilitated through applying the lens of risk assessment and risk governance.

Inter-disciplinary research and science-policy-practice dialogues will make important contributions to the process leading to Rio+20 and beyond. GRF Davos will be actively engaged in important conferences, workshops, dialogues and publications geared towards informing, nourishing and inspiring the political talks ahead of us. The year 2011 is an opportune time frame to target in the above context.

### UN-ISDR "Making Cities Resilient"

The Global Risk Forum GRF Davos has become a partner in UN-ISDR's campaign "Making Cities Resilient – My city is getting ready". At IDRC Davos 2010, UN-ISDR has launched the campaign and Baofeng County (P.R. China), Davos (Switzerland), Tehran and Mashad (both I.R.Iran) have signed-up during the conference.

### Joint global dialogue GRF – UNCCD

UNCCD, the UN Convention to Combat Desertification headquartered in Bonn, and GRF Davos have agreed on launching a joint global dialogue campaign for sustainable investments for risk reduction and resilience building in drylands, to increase the political will to address drought, desertification and land degradation, and to provide and support practical solutions.

### Intensified participation in UNFCCC Activities

GRF Davos has been present at COP15 in Copenhagen and will again actively participate as a (partner) NGO in COP16 in December 2010 in Cancun.



*"Global warming is one of the greatest threats to humanity and therefore it is vital for countries worldwide to better manage Earth's natural resources. The IDRC 2010 in Davos provided an excellent platform for these issues to be shared and discussed."*

Ajani Malik

Focus Humanitarian Assistance, Tajikistan

### DRR for the G-8 and G-12 Agendas

UNESCO is proposing to seek ways to place disaster risk reduction (DRR) issues on the agendas of the G-8 and G-12 meetings, and to increase the scientific, technical and political capacity for DRR in some additional countries each year.

### Collaboration between GRF Davos and UNESCO

UNESCO and GRF Davos have agreed to sign a Letter of Interest in autumn 2010 which shall focus on science and education in risk reduction and disaster management.



### Memorandums of Understanding GRF – Beijing Normal University BNU, and GRF – IRG\_P

Collaboration frameworks (MoUs) have been signed during the conference with Beijing Normal University (BNU), and with the International Risk Governance Project IRG-P, also situated at BNU, Beijing.

### GRF Davos to join the ‘Rocky Mountain Initiative’ and a new Dialogue Forum

Following the successful launch of the ‘Rocky Mountain Initiative on Science, Society and Global Change’, GRF Davos will be a strategic partner in this new endeavour, which is geared towards collaborative research, publications and policy dialogues around the themes of integrated societal responses to global change.

Also, GRF Davos joins the effort of establishing a new ‘Dialogue Forum on Development and Climate Change’, initiated by a group of research institutions, GTZ and ADB.

### Project Legacy for IDRC Davos 2010 Participants

To enhance knowledge, and to transfer and implement it, Walter Hays, former USGS chief-expert in earthquake engineering and seismology, is proposing a ‘Project Legacy’. Participants of IDRC Davos 2010 should join and build their legacy in the field of disaster risk reduction.

### IDRC Biennial Disaster Risk Reduction Award sponsored by Munich Re Foundation

Munich Re Foundation has announced the “IDRC Biennial Disaster Risk Reduction Award”, an award in partnership with GRF Davos and UN-ISDR, with a price sum of max 100'000 EURO. GRF Davos will be responsible for the administrative handling of the awarding process. The award is due for the first time at the IDRC Davos 2012 conference. Proposals for the first award in 2012 have to address projects for early warning in DRR.

### IDRC Davos 2010 Poster Awards

The IDRC Davos 2010 Poster Award winners are:

Mr. Henry Peralta, Columbia. *Risk Reduction and Development from the Andean Worldview in a Changing Climate.*

Ms. Stefanie Hass, Germany. *Effective Warning Management: A multi-disciplinary approach.*

Mr. Malik Mehindi Ajani, Tadjikistan. *Fostering Disaster Resilience in Schools Located in Isolated Mountainous Environments.*

Mr. Nimal Piyasiri Banadara, Sri Lanka. *School Based Disaster Risk Management Program Implemented by Disaster Management Co-ordination Unit of Badulla Districts, Sri Lanka.*



GRF Edited Volume (2010):

"Microinsurance – An Innovative Tool for Risk and Disaster Management"

### GRF Publication: Book on Microinsurance

GRF Davos has edited and launched a new book ‘Microinsurance – An Innovative Tool for Risk and Disaster Management’. The book contains fifteen papers in total, all focusing – from different perspectives – on an integrated approach in risk and disaster management. Case studies from Africa, Asia and Latin America involving a broad variety of stakeholders, institutions, risks, methods, and business models, reveal the enormous potential of microinsurance in particular also in disaster management.

### IDRC Davos 2010 – Conference Documentation

- IDRC Davos Short Abstracts Book
- IDRC Davos 2010 Conference Proceedings (CD)
- IDRC Davos 2010 Conferene DVD
- IDRC Davos 2010 Interactive Conference Programme containing presentations slides, video statements, posters as well as short and extended abstracts that were presented at IDRC Davos 2010 is available on [www.idrc.info](http://www.idrc.info).
- GRF Edited Volume on Microinsurance

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All items can be ordered at [info@grforum.org](mailto:info@grforum.org)