



Bulletin No. 5 (13 May 2008)

# The First World Landslide Forum

Implementing the 2006 Tokyo Action Plan on the International Programme on Landslides (IPL)

-Strengthening Research and Learning on Earth System Risk Analysis and Sustainable Disaster Management within UN-ISDR as Regards "Landslides"-

Date: 18-21 November 2008 Venue: United Nations University, Tokyo, Japan

# **Organizers**

International Consortium on Landslides (ICL) \*, United Nations Educational, Scientific and Cultural Organization (UNESCO), World Meteorological Organization (WMO), Food and Agriculture Organization of the United Nations (FAO), United Nations International Strategy for Disaster Risk Reduction (UN/ISDR), United Nations University (UNU), United Nations Environment Programme (UNEP), World Bank (IBRD), United Nations Development Programme (UNDP), International Council for Science (ICSU), World Federation of Engineering Organizations (WFEO), Kyoto University (KU), Japan Landslide Society (JLS) (\* Members are listed in the last page)

# **Cosponsors** (Tentative)

Cabinet Office of Japan (CAO), Ministry of Foreign Affairs, Japan (MOFA), Ministry of Education, Culture, Sports, Science and Technology, Japan (MEXT), Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF), Ministry of Land Infrastructure and Transport, Japan (MLIT), Japan Meteorological Agency (JMA), Japan International Cooperation Agency (JICA), Science Council of Japan (SCJ), Ministry for Research and University, Italy, Ministry of Foreign Affairs, Italy, Ministry of the Environment, Italy, Department of Civil Protection of the Presidency of the Council of Ministers, Italy, Ministry of Land and Resources of China (MLR), National Emergency Management Agency of Korea (NEMA), Ministry of Environment of the Slovak Republic, Ministry of Environment of the Czech Republic, Government of Peru, Government of Philippines, International Union of Geological Sciences (IUGS), International Union of Geodesy and Geophysics (IUGG), International Geographical Union (IGU), International Flood Initiative (IFI), International Year of Planet Earth (IYPE), Academy of Forest, Wood and Environment, Japan (AFWE), Asian Disaster Reduction Center (ADRC)

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Jacques DIOUF (Director-General of FAO)

Konrad OSTERWALDER (Rector of UNU)

Michel JARRAUD (Secretary-General of WMO)

Koïchiro MATSUURA (Director-General of UNESCO)

Goverdhan MEHTA (President of ICSU)

Shuzo NISHIMURA (Executive Vice President of Kyoto University)

#### Chairperson

Kyoji SASSA (President of ICL, IPL World Centre)

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Paolo CANUTI (European Centre of ICL, University of Florence)

Srikantha HERATH (Senior Academic Programme Officer of UNU)

Kazuhiro ISHIHARA (Director of Disaster Prevention Research Institute of Kyoto University)

Howard MOORE (Senior Advisor of ICSU)

Badaoui ROUHBAN (Chief, Section for Disaster Reduction of UNESCO)

Robert SCHUSTER (U.S. Geological Survey)

#### Members

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Earl BRABB (President Emeritus, International Landslide Research Group, USA)

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Wolfgang EDER (Technical Advisor of ICL, Germany)

Ryu FUKUI (Manager, Tokyo Development Learning Center of the World Bank)

See Sew GUE (World Federation of Engineering Organizations (WFEO), Institution of Engineers, Malaysia)

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Thomas HOFER (Forestry Officer, Specialist on watershed management and mountain development, Forestry Department of FAO, Italy)

Alik ISMAIL-ZADEH (Secretary General, International Union of Geodesy and Geophysics (IUGG), Germany/Russia)

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Peter LYTTLE (Coordinator, Landslide Hazard Programme of U.S. Geological Survey)

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Hiroshi TANABE (Vice President, International Geographical Union (IGU), Japan)

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Yueping YIN (Director, Department of Environmental Geology, Chinese Geological Survey, China)

## **Local Organizing Committee**

### **Executive Subcommittee**

Chairperson: Kaoru TAKARA (Executive Director of ICL, Professor of DPRI/KU)

#### **Deputy Chairpersons:**

Hirotaka OCHIAI (Vice President of the Japan Landslide Society, Head of Mountain Conservation of the Forest and Forest Product Research Institute)

Roy SIDLE (Professor, DPRI, Kyoto University)

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Toshitaka KAMAI (Professor, DPRI, Kyoto University)

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#### **Advisory Subcommittee**

#### **Advisors**

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Tatsuya KIMURA (Deputy Head, International Affairs Office, Japan Meteorological Agency)

Haruo NISHIMOTO (Director for Volcanic Sabo and Debris Flow Control, SABO Dept., MLIT)

Shokichi SAKATA (Group Director for Water Resources and Disaster Management, Japan International Cooperation Agency)

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Asahiko TAIRA (Science Council of Japan, SCJ),

Tamotsu TAKAHASHI (Association for Disaster Prevention Research)

Kenzo TOKI (Director, Research Center for Disaster Mitigation of Urban Cultural Heritage of the Ritsumeikan University)

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Fawu WANG (Assistant to the President of ICL, Assistant Professor of DPRI/KU)

Gonghui WANG (Assistant to the Editor-in-Chief of "Landslides, Assistant Professor of DPRI/KU))

Mie UEDA (Secretary, International Consortium on Landslides)

## **Call for Contribution**

- The First World Landslide Forum is a global cross-cutting information and cooperation platform for all types of organizations from academia, United Nations, governments, private sectors, and individuals that are contributing to landslide research &education and are willing to strengthen landslide and other related earth system risk reduction.
- Your active contribution and initiative will help to guide and further landslide risk reduction efforts within a global cooperation framework for the coming decade.

# **Background and Objectives of the First World Landslide Forum**

In January 2006, the 2006 Tokyo Action Plan on the International Programme on Landslides (IPL) was adopted by the international community. It proposed the global cooperating Network of the IPL, and established the IPL Global Promotion Committee and the IPL World Centre as its secretariat to coordinate and support implementation of the International Programme on Landslides. The relationship of IPL Global Promotion Committee, the IPL World Centre, ICL member organizations, and ICL supporting organizations is shown below.

The adoption of the 2006 Tokyo Action Plan took place on the occasion of the 2006 Tokyo Round Table Discussion "Strengthening Research and Learning on Earth System Risk Analysis and Sustainable Disaster Management within UN-ISDR as Regards Landslides"-towards a dynamic global network of the International Programme on Landslides (IPL) which was held at the United Nations University, Tokyo, from 18<sup>th</sup> to 20<sup>th</sup> January, 2006, to formulate a framework for cooperation and to identify focus areas to reduce landslide risk worldwide. It was further agreed that the 2006 Tokyo Action Plan would be implemented within the scope of the Hyogo Framework for Action 2005-2015, "Building the Resilience of Nations and Communities to Disasters", adopted at the United Nations World Conference on Disaster Reduction held in Kobe, Hyogo, Japan in 2005.

The Action Plan proposed organizing a World Landslide Forum in order to bring together academics, practitioners, politicians, and other stakeholders to a global, multidisciplinary, problem-focused platform. This bulletin describes the organization of the First Landslides Forum that will take place at United Nations University, Tokyo, Japan from 18-21 November 2008.



The objectives of the First Landslides Forum (1<sup>st</sup> WLF) are the following:

# 1. Promotion of research and exchange of experience through open Forums, Symposia and Thematic Sessions

Various meetings to strengthen Research and Learning on Earth System Risk Analysis and Sustainable Disaster Management within UN-ISDR as Regards "Landslides" will be organized by all levels of participating groups. Rooms and time span will be allocated to promote those activities.

## 2. Advances and achievements of IPL

Proposals and reports on IPL projects will be presented for the planned global cooperating fields, which are listed hereafter:

#### **Global Cooperating Fields of IPL**

- (1) Technology Development
  - A. Monitoring and Early Warning
  - B. Hazard Mapping, Vulnerability and Risk Assessment

- (2) Targeted Landslides: Mechanisms and Impacts
  - A. Catastrophic Landslides
  - B. Landslides Threatening Heritage Sites
- (3) Capacity Building
  - A. Enhancing Human and Institutional Capacities
  - B. Collating and Disseminating Information/ Knowledge
- (4) Mitigation, Preparedness and Recovery
  - A. Preparedness
  - B. Mitigation
  - C. Recovery

#### 3. Designation of World Centres of Excellence on Landslide Risk Reduction

The IPL Global Promotion Committee will identify and promote World Centres of Excellence (WCoEs) within eligible organizations, such as universities, institutes, NGOs, government ministries and local governments, contributing to "Risk Reduction for Landslides and Related Earth System Disasters". Linkages to CoE at the national level will be used to promote cooperation with the ICL and dissemination of knowledge and information. An independent Panel of Experts, set up by the Global Promotion Committee of IPL, may be appointed to endorse the CoEs. The first WCoEs will be approved by the IPL Global Promotion Committee based on the recommendation by the Panel of Experts and announced at the final day of the first World Landslide Forum.

# **Programme of the First World Landslide Forum**

#### **Pre-Events**

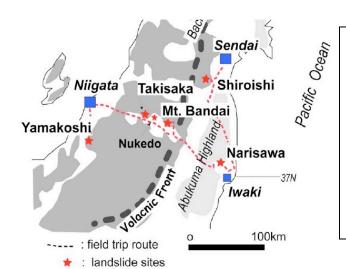
#### 1) 1-30 November: Exhibition of Landslides and Risk Mitigation of the World

United Nations Information Centre(UNIC), at Exhibition Hall of United Nations University.

#### 2) 11-15 November: Satellite Conference and Field Trip

Organizers: The Japan Landslide Society, International Consortium on Landslides and others International Conference in Sendai-city on 11-12 November "Management of Landslide Hazard in Asian Pacific Region (11-12 November)

The field trip visits a 2007 recent landslide in Shiroishi, two large scale landslides (Narisawa landslide and Takisaka landslide), the 1988 Mountain Collapse in Volcano Bandai having caused many lakes.



Tokyo to Sendai takes 103 minutes (Hayate) or 132 minutes (Yamabiko) by the Tohoku Shinkansen. Around 5 trains/hour are operated.

The tour from Sendai to Nagaoka is by the chartered bus through 3 overnights.

Nagaoka (Yamakoshi Village) to Tokyo takes 95 minutes by the Jyoetsu Shinkansen. 3 trains/hour are operated.

#### The First World Landslide Forum

#### 18 November (Tuesday) 9:00-10:15 Opening Addresses and Greetings from Organizers and Co-Sponsors Open Forum "Progress of IPL activities" 10:45-12:30 Exhibition and Posters in 2, 3,4 Floors. 12:30-14:00 Plenary Symposium "Global Landslide Risk Reduction" 14:00 -17:30 18:30-21:00 Welcome Reception at Ivy Hall of the Aoyama Gakuin University 19 November (Wednesday) 9:00-10:30 Plenary Session: Keynote lectures 11:00-12:30 Parallel Activities 1: Thematic sessions In U-Thant Hall (3F), Rose Hall (5F), Reception Hall (2F), Committee Room (2) Exhibition and Posters in 2, 3 Floors 12:30-14:00 14:00-17:30 Parallel Activities 2:Thematic Sessions In U-Thant Hall (3F), Rose Hall (5F), Reception Hall (2F), Committee Room 2(5F) 14:00-17:30 Public Forum in Japanese (Free of charge) in Reception Hall (2F) "Protection of Society and Cultural and Natural Heritage from Landslides" Role of UNESCO for Education, Science in Disaster Reduction (UNESCO), United Nations International Strategy for Disaster Reduction and Japanese Contribution (UN/ISDR), What is landslides, how to measure, how to mitigate? (Landslide experts), Landslide Experience and Research (Community leader and Children in Landslide Area) are planned. 20 November (Thursday) 9:00-10:30 Plenary Session: Keynote lectures 11:00-12:30 Parallel Activities 3 Thematic sessions In U-Thant Hall (3F), Rose Hall (5F), Reception Hall (2F), Committee Room 2 (5F) 12:30-14:00 Exhibition and Posters in 2, 3, 4 Floors 14:00-17:30 Parallel Activities 4 Thematic sessions, et al. in U-Thant Hall (3F), Rose Hall (5F), Committee Room 2 (5F) and Reception Hall (2F) 21 November (Friday) 9:00-10:00 Plenary Session: Addresses and Review of Sessions High Level Panel Discussion "Socio-Economic Impact and Global Change - Research 10:30-12:30 and Risk Reduction" - Toward the Second World Landslide Forum in 2011-14:00- 16:00 **Closing Session** Adoption of output document, Presentation of New IPL Projects, Nomination of WCoEs Conferment of ICL Awards (Varnes Medal, Best Paper Award, IPL Award of Success) 16:30-17:30 Press meeting



19:30-

Supported by the Commemorative Organization for the Japan World Exposition ('70).

Post-Conference Dinner at Fuji Hall of Floracion Aoyama 1 F

# The First World Landslide Forum

	18 November (Tue)	19 November (Wed)	20 November (Thurs)	21 November (Fri)
AM	<b>Opening Session</b>	Plenary Session	Plenary Session	Plenary Sessions:
	Addresses and	Keynote lectures	Keynote lectures	Addresses and
	Greetings from			Review of Sessions.
	ICL, UN/ISDR,	Parallel Sessions 1:	Parallel Sessions 3	High Level Panel
	Gov. of Japan,			Discussion
	UN Organizations and	4 Thematic sessions	4 Thematic sessions	"Socio-Economic Impact
	Global NGOs	in 4 rooms	in 4 rooms	of Landslides and Global
	Open Forum:			Change –Research and
	"Progress of IPL			Risk Reduction" –
	Activities "			Toward WLF-II in 2011
Lun	<b>Exhibition &amp; Posters</b>	<b>Exhibition &amp; Posters</b>	<b>Exhibition &amp; Posters</b>	
ch				
PM	Plenary Symposium:	Parallel Sessions 2	Parallel Sessions 4	Closing Session
				Adoption of output
	"Global Landslide	7 Thematic Sessions	6 Thematic Sessions	document,
	Risk Reduction"	in 4 Rooms	in 4 rooms	Presentation of New IPL
				Projects,
		*Public Forum for		Conferment of WCoE
		Japanese citizens and		and ICL Awards
		youth (no charge)		Press Meeting
Eve-	Welcome Reception		Working Group	<b>Post-Conference Dinner</b>
ning	(Ivy Hall, Aoyama		Meetings	(Fuji Hall, Floracion
	Gakuin University)			Aoyama)

# **Plenary Sessions**

### 18 November (Tuesday) 2008

### 1) Opening Session (9:00-10:15)

- 1) Opening and Welcome Addresses
- 2) Greetings from United Nations Organizations and Government
- 3) Greetings from Global Non-Governmental Scientific/Engineering Organizations

#### 2) Open Forum "Progress of IPL Activities" (10:45-12:30)

Chairpersons: Peter Lyttle (US Geological Survey), Paolo Canuti (European Centre of ICL)

(1) Progress of the International Programme on Landslides Objectives of IPL and WLF

Kyoji Sassa (President of ICL)

(2) Reports of IPL Projects

Assessment of global high-risk landslide disaster hotspots.

Farrokh Nadim (International Centre for Geohazards at NGI) International summer school on rockslides and related phenomena in the Kokomeren river valley,

Tien Shan, Kyrgyzstan

Alexander Strom (Institute of Geosheres Dynamics, Russia)

Landslide investigation and capacity building in Machu Picchu – Aguas Calientes Area

Kyoji Sassa (IPL World Centre, Japan)

(3) Open Discussion on IPL

Management of IPL (including the list of ongoing IPL projects)

Nicola Casagli (IPL Management Committee)

Discussion from floor.

#### 3) Plenary Symposium "Global Landslide Risk Reduction" (14:00-17:30)

Chairpersons: Peter Bobrowsky (Geological Survey of Canada) Edward Bromhead (Kingston College, UK) Landslide risk assessment and mitigation strategy

Suzanne Lacasse (Norwegian Geotechnical Institute)

Understanding to predict

Luciano Picarelli (Second Napoli University, Italy)

Research toward the mitigation of debris flow disasters

Tamotsu Takahashi (Assoc. for Disas. Prev. Research, Japan)

A review of submarine mass movements and their consequences

Jacques Locat (Laval University, Canada)

Discussion for Global Landslide Risk Reduction.

### 19 November (Wednesday) 2008

#### **Keynote lectures (9:00-10:30)**

Satellite remote sensing applications for landslide detection and monitoring

Vern Singroy (Canada Centre for Remote Sensing)

Huge landslides caused by massive earthquakes and Long-lasting risks

Kazuo Konagai (University of Tokyo)

Incorporating spatial, temporal, and climate variability into tools for assessing post wildfire debris-flow hazards

Susan Canon (U.S. Geological Survey)

## 20 November (Thursday) 2008

### **Keynote lectures (9:00-10:30)**

Possible impacts of twenty-first century Climate Change on landslide hazards and risk.

John Clague (Simon Fraser Univ., Canada)

Global changes: Landslides and consequences in development

Thomas Glade (University of Vienna)

Geotechnical risk assessment and mitigation measures for large rock slide

Giovanni Barla (Politecnico of Turin)

# 21 November (Friday) 2008

#### 1) Review of Sessions (9:00-10:00)

Addresses from organizers

Addresses from international Partners

Review of Sessions

Wolfgang Eder (University of Munich)

#### 2) High Level Panel Discussion (10:30-12:30)

"Socio-Economic Impact of Landslides in Global Change – Research and Risk Reduction" -Toward the Second World Landslide Forum in 2011"

#### 3) Closing Sessions (14:00-16:00)

Speech: Paolo Canuti (New President of ICL)

Host of 2<sup>nd</sup> Forum: FAO

Adoption of 2008 Tokyo Declaration, Presentation of New IPL projects,

Nomination of WCoEs, Conferment of Awards

## **Parallel Sessions**

#### 1. A look from space

- Satellite remote sensing applications for landslide detection and monitoring
- Models for landslide warning based on satellite weather forecasts
- Remote sensing from airborne and ground-based sensors
- Extra-terrestrial landslides

Conveners: Nicola Casagli (Florence University, Italy), Robert Adler (NASA, USA)

e-mail: session1@iclhq.org

#### 2. Case Studies and National Experiences

- Landslides in specific regions such as Central Asia, Latin America, Balkan, etc.
- Landslides in Loess, quick-clays, Volcanoes, mining or power plant sites, etc.

- Case studies highlighting national experiences in recovery, policy changes and mitigation needs
- Case studies on success stories of regional or national landslide risk

Conveners: Srikantha Herath (UNU, Japan)

e-mail: session2@iclhq.org

# 3. Catastrophic slides and avalanches

- Megalandslides
- Palaeo landslides, avalanches and their dating
- Rockslide dams and their failures
- Debris avalanches and lahars
- Environmental and socio-economic impact

Conveners: Alexsander Strom (Institute of Geospheres Dynamics, Russia),

Steve Evans (Waterloo Univ., Canada)

e-mail: session3@iclhq.org

# 4 Climate change and slope instability

- Climate change scenarios and consequences
- El Niño/La Niña and North Atlantic Oscillation effects on slope instability
- Monsoon rainfall irregularity
- Desertification, weathering and erosion
- Glacial lake outburst floods
- Landslides in frozen soils

Conveners: John Clague (Simon Fraser Univ., Canada)

Marta Chiarle (CNR - IRPI sede di Torino, Italy)

Hiromichi Fukui (Keio Univ., Japan)

e-mail: session4@iclhq.org

#### 5. Landslides threatening heritage sites

- Contribution of archeology to paleo-landslides
- Landslide risk evaluation for long-standing cultural heritage
- Vulnerability of cultural heritage related to landslides: Physical and socio-economic vulnerability)
- Landslide risk mitigation technology suitable for cultural heritage
- Policy and advocates related to cultural heritage and landslides

Conveners: Edward Bromhead (Kingston College, UK), Paolo Canuti (Florence Univ., Italy),

Claudio Margottini (APAT:Italian Environment Protection and Technical Services Agency)

e-mail: session5@iclhq.org

#### 6. Economic and Social Impact of Landslides

- Landslide loss estimation
- Social vulnerability
- Landslides and land use policy linkages
- Case studies on recovery and resettlement
- Insurance for landslide risk reduction
- Investments for landslide risk reduction

Conveners: Oddvar Kjekstad (ICG - NGI, Norway), Lynn Highland (USGS, USA)

e-mail: session6@iclhq.org

#### 7. Education, Capacity Building and Public Awareness for Disaster Reduction

- Importance of education for natural disaster reduction
- Strategies for promoting education for natural disaster reduction
- Raising awareness of school teachers and community leaders
- Development of guidelines and educational tools

Conveners: Badaoui Rouhban (UNESCO, France), Rajib Shaw (Kyoto Univ., Japan)

e-mail: session7@iclhq.org

#### 8. Environmental Impact of Landslides

- Impact of landslides on streams, rivers, aquatic habitats
- Impact of landslides on water quality and potability
- Impact of landslides on terrestrial ecosystems and wildlife habitat

• Impact of landslides on earth's topography and scenery

Conveners: Marten Geertsema (British Columbia Forest Service, Canada)

Laura Vaugeois (Washington Dept. of Natural Resources, USA)

e-mail: session8@iclhq.org

# 9. International Cooperation Initiatives

- Global Platform for Disaster Reduction-UN/ISDR
- International Geoscience Programme (IGCP)-UNESCO/IUGS
- International Hydrological Programme (IHP)-UNESCO
- Disaster Prevention and Migitation (DPM) Program- WMO
- Global Facility for Disaster Reduction (GFDR) World Bank
- · Natural and Human-induced Environmental Hazards and Disasters Program-ICSU
- Integrated Global Observing Strategy (IGOS)
- International Flood Initiative (IFI) and Internationals Sediment Initiative (ISI)
- Joint Technical Committee on Landslides and Engineered Slopes of ISSMGE, IAEG and ISRM.
- International Year of Planet Earth (IYPE)

Conveners: Wolfgang Eder (ICL, Germany), Kaoru Takara (Kyoto Univ., Japan)

e-mail: session9@iclhq.org

#### 10. Landslides in General

This session is planned to accommodate papers and posters dealing activities which are not included in other sessions.

- Landslide research and investigation
- Capacity building activities
- Landslide risk mitigation activities

Conveners: WLF Secretariat, e-mail: session10@ iclhq.org

#### 11. Landslides and multi-hazards

- Earthquake-induced landslides
- Landslides and volcanoes
- Landslides and floods
- Marine landslides and tsunami

Conveners: Hideaki Marui (Niigata Univ., Japan), Farrokh Nadim (ICG - NGI, Norway)

e-mail: session11@iclhq.org

# 12. Mapping: Inventories, Susceptibility, Hazard and Risk

- Landslide inventories.
- Landslide hazard and risk mapping methods at different scales.
- National and international landslide hazard and risk mapping strategies and projects.
- Links with mitigation measures and land use planning policy.
- Landslide hazard and risk assessment at regional scales from developing countries.

Conveners: Javier Hervas (JRC, Italy), Peter Bobrowsky (Geological Survey of Canada)

Hiromitsu Yamagishi (Niigata Univ., Japan)

e-mail: session12@iclhq.org

#### 13. Monitoring, prediction and early warning

- Technological development of monitoring and data transfer devices
- Monitoring, early warning and evacuation systems
- Modelling for triggering and runout for time and site prediction
- Which early warning systems are most effective in various settings and scales
- Living with landslides and awareness raising

Conveners: Kyoji Sassa (ICL, Japan), Luciano Picarelli (Seconda Università di Napoli, Italy),

Yin Yueping (China Geol. Survey, China)

e-mail: session13@iclhq.org

#### 14. Policy and Institutional framework for Disaster Reduction

- Living with landslides and awareness raising
- Policies on Landslide Mitigation and Risk Reduction

- Model of National Slope Master Plan
- Legislation on Landslide Mitigation for Infrastructure and Residential Development
- Harmonisation and Legislation Enhancement
- Development of Guidelines and Knowledge Kit for Practitioners

**Conveners:** Gue See Saw (WFEO, Malaysia), Dwikorita Karnawati (Gadjah Mada University, Indonesia) e-mail: session14@iclhq.org

#### 15. Rainfall, debris flows and wildfires

- Debris flows, flowslides, liquefied landslides
- Rainfall triggering of shallow-rapid landslides
- Influence of wildfires on slope instability
- Landslides in river systems
- Prevention measures and erosion control
- Raising public awareness on preparedness and response to landslide hazards

Conveners: Jerome De Graff (US Forest Service, USA),

Hirotaka Ochiai (Forestry and Forest Product Research Institute, Japan)

e-mail: session15@iclhq.org

## 16. Risk Management Strategies in Urban Areas

- Land use planning for landslide disaster reduction
- How to plan and build in unstable areas Guidelines and building codes
- Effects of excavation and artificial fills in urbanization
- Recovery from landslide disasters
- · Landslide management strategy in urban area
- Risk transfer mechanisms in different nations

Conveners: Villagran de Leon (UNU, Germany), David Petley (Univ. Durham, UK),

Nelson Fernandes (Federal University of Rio de Janeiro, Brazil)

e-mail: session16@iclhq.org

#### 17. Landslide Disaster Mitigation Engineering Measures

- Non structural measures for landslide mitigation (slope geometry modification, ground water control, vegetative biotechnical slope stabilization)
- Structural measures for landslide mitigation (retaining structures, stabilizing piles and micropiles, ground anchors, grouting)
- Debris flow disaster mitigation measures
- Rock fall disaster mitigation measures
- Back analysis of landslides to design mitigation measures
- Levels of effectiveness and acceptability that may be applied in the use of landslide mitigation measures

Conveners: Mihail Popescu (Illinois Inst. Technology), Katsuo Sasahara (Kochi Univ., Japan)

e-mail: session17@iclhq.org

## 18. Watershed and Forest Management for Risk Reduction

- Effects of forest harvesting, mountain roads, prescribed burning
- Reforestation to rehabilitate landslide affected areas
- Effects of forest conversion and rehabilitation strategies in developing nations
- Protection forests against landslides and debris flow runout.
- Upslope forest management practices with downstream social consequences.
- Watershed management policy to mitigate landslide risk

Conveners: Thomas Hoffer (FAO, Italy), Roy Sidle (Kyoto Univ., Japan), Libor Jansky (UNU, Germany) e-mail: session18@iclhq.org

#### Other parallel activities (PA)

# P1. Exhibition of Landslides and Risk Mitigation of the World on 1-30 November

The exhibition of landslides and risk mitigation of the world is displayed by the United Nations Information Centre (UNIC) at the Exhibition Hall on the second floor of the United Nations University which is open for public. Photos, posters, videos, model for landslide mechanism,

investigation, risk mitigation measures are requested to present. Free of charge for this display but cooperation is requested to present good one-month exhibition for public awareness and learning on landslides.

Contact: Kaoru Takara (takara@flood.dpri.kyoto-u.ac.jp, Japan)

Hiroshi Fukuoka (fukuoka@landslide.dpri.kyoto-u.ac.jp: Japan)

# P2. Public Forum "Protection of Society and Cultural and Natural Heritage from Landslides" in Japanese.

In order to publicize the significance of Landslides for citizens and young people supporting next generation in Japan, a public forum free of charge is conducted in Japanese. Talks from international leaders and experts are planned to present "Significance of Research and Learning on Landslides and their risk reduction", "What is Landslide?", "How to protect society and the cultural and natural heritage sites (Machu Picchu & Bamiyan)". The room is directly adjacent to the Exhibition hall for the Exhibition of Landslides and Risk Mitigation of the World"

Contact: Kyoji Sassa (sassa@iclhq.org: Japan)

Hideaki Marui (maruihi@cc.niigata-u.ac.jp: Japan)

#### P3. Dialogues on country landslide issues

Those who have been involved in landslide issues as government officers, developers, managers of entities in planning of development and management of lands may join free talk and information exchange on country landslide issue. Preparation of papers are not necessary.

Contact: Srikantha Herath (<a href="herath@hq.unu.edu">herath@hq.unu.edu</a>: UNU, Tokyo)

#### P4. Consultation of specific landslides

Those which are involved in or suffered from specific landslides which are difficult to solve, good to tackle with international cooperation are invited to have an introduction.

Outline documents (free format) on the landslide are requested to present in advance, possibly in together with types or names of expected cooperating organizations or groups or individuals from participants. Landslide experts are requested to attend it as volunteers.

Contact: wlf@iclhq.org

# Plenary sessions

Date	Time	Room	Events and Programme	
17 Nov	9:00-12:30	Room B (Rose Hall)	7 <sup>th</sup> Session of Board of Representatives of ICL	
(Mon)	`		The Third IPL Global Promotion Committee	
			(Joint Meeting on UNITWIN/UNESCO Chair Disaster Reduction Programmes in Japan will be organized as a satellite meeting in U-Thant Hall)	
	9:00-10:30	Room A	Opening Address from Organizers and Cosponsors	
18 Nov	11:00-12:30	(U-Thant Hall)	Open Forum "Progress of IPL Activities"	
(Tues))	14:00-17:30	Room A (U-Thant Hall)	Plenary Symposium "Global Landslide Risk Reduction"	
l	18:30-21:00	Aoyama Gakuin Univ	Welcome Reception	
19 Nov	9:00-10:30	Room A	Keynote lectures	
20 Nov	9:00-10:30	Room A	Keynote lectures	
	9:00-10:00	Room A	Addresses and Review of Sessions	
21 Nov (Fri)	10:30-12:30	Room A	High Level Panel Discussion "Socio-Economic Impact of Landslides and Global Change – Research and Risk Reduction" -Toward the Second World Landslide Forum in 2011-	
	14:00-16:00	Room A	Closing Session: Adoption of Output document, Presentation of New IPL Projects, Nomination of WCoE, Conferment of ICL Awards Welcome to the Second WLF 2011 by Host Organization	
	16:30-17:30	Room B (Rose Hall)	Press meeting	
	19:30-21:30	Floracion Aoyama 1 F Hall Fuji	Post-Conference Dinner	

# Parallel Sessions for 19, 20 November

Date	Time	Room A(Theater) U-Thant Hall, 3F	Room B (Round + School) Elizabeth Rose Hall ,5F	Room C (Chairs) Reception Hall, 2F	Room D (Round) Committee Room 2, 5F		
191	9:00-10:30	Keynote address and Keynote lecture in Room A					
November(Wednesday)	11:00-12:30	A look from space (1)	Education, Capacity Building and Public Awareness for Disaster Reduction (7)	Mapping: inventories, susceptibility, hazard and risk (12)	International cooperation initiatives (9)		
	12:30-14:00	Poster presentation of research, institutes and instruments around Utant Hall, 3-4 Floor Exhibition of Landslides and Risk Mitigation of the World (1-30 November), 2 Floor (P1)					
	14:00-15:30	Landslides and multi-hazards (11)	Watershed and forest management for risk reduction (18)	Public Forum "Protection of Society and Cultural and	Dialogue on Country landslide issues (P3)		
	16:00-17:30	Monitoring, prediction and early warning (13)	Cultural heritage and landslides (5)	Natural Heritage from Landslides in Japanese (P2)	Consultation of specific landslides (P4)		
20 November(Thursday)	9:00-10:30	Keynote address and Keynote lecture in Room A					
	11:00-12:30	Rainfall, debris flows and wildfires (15)	Risk management strategies in urban areas (16)	Economic and Social Impact of Landslides (6)	Landslides in General (10)		
	12:30-14:00	Poster presentation of research, institutes and instruments around Utant Hall, 3-4 Floor Exhibition of Landslides and Risk Mitigation of the World (1-30 November), 2 Floor (P1)					
	14:00-15:30	Climate change and slope instability (4)	Structural landslide disaster mitigation measures (17)	Environmental Impact of landslides (8)	IPL Global Promotion		
	16:00-17:30	Catastrophic slides and avalanches (3)	Case studies and National Experiences (2)	Policy and Institutional frame work for Disaster Reduction (14)	Committee (for Members)		

# Time Schedule

Date	Activities	Address or Place
1 May 2008	Deadline to submit the application form for travel supports.	wlf@iclhq.org
1 July 2008	Deadline to submit the registration form and abstracts for oral and poster presentations in the World Landslide Forum.	To: wlf@iclhq.org and Conveners of each session session1@iclhq.org session2@iclhq.org session N @iclhq.org (N= 3 - 18)
1 September 2008	*Deadline to submit formatted manuscript for mono-color proceedings (4 pages/paper) and Web proceedings (4-20 pages/paper)  *Final Programme of the Forum will be made on the accepted papers and the participation.	To: Conveners of each session  session1@iclhq.org session2@iclhq.org session N @iclhq.org (N= 3 - 18)
1 - 30 November 2008	"Exhibition of Landslides and Risk Mitigation of the World" by UN Information Centre	Exhibition Hall at United Nations University
11-15 November 2008	Satellite Conference "Management of Landslide Hazard in Asian Pacific Region" and Field Trip "Large scale landslides and Earthquake-induced Landslides"	Sendai-city  Landslide sites in Miyagi- Fukushima-Niigata Prefectures
18-21 November 2008	The First World Landslide Forum	United Nations University

# Secretariat of the First World Landslide Forum

IPL World Centre UNITWIN Headquarter Building Kyoto University Uji Campus Uji, Kyoto 611-0011, Japan E-mail: wlf@iclhq.org, Web: http://iclhq.org



# **International Consortium on Landslides**

An international non-government and non-profit scientific organization promoting landslide research and capacity building for the benefit of society and the environment

President: Kyoji Sassa (Prof. Emeritus, Kyoto University)

Vice Presidents: Peter Bobrowsky (Geological Survey of Canada) / Paolo Canuti (University of Firenze, Italy)
Oddvar Kjekstad (International Centre for Geohazards, Norway) / Peter Lyttle (U. S. Geological Survey, USA)

#### **ICL Supporting Organizations:**

The United Nations Educational, Scientific and Cultural Organization (UNESCO) / The World Meteorological Organization (WMO) / The Food and Agriculture Organization of the United Nations (FAO) / The United Nations International Strategy for Disaster Reduction Secretariat (UN/ISDR) / The United Nations University (UNU) / International Council for Science (ICSU) / World Federation of Engineering Organizations (WFEO) / International Union of Geological Sciences (IUGS) / Governments of Japan, USA, Italy, Canada, Norway, Korea, Czech Republic, and Slovakia.

#### **ICL Members:**

Geological Survey of Canada / Chinese Academy of Sciences, Chengdu Institute of Mountain Hazards and Environment / Jilin University, Environmental Geological Disaster Research Institute, China / Xian Municipal Government, Lishan Landslide Prevention and Control Office, China / Northeast Forestry University, China / Xi'an Jiaotong University, Department of Civil Engineering, China / China Three Gorges University, Institute of Geological Hazard Mitigation / China Geological Survey / Universidad Nacional de Columbia, Columbia / Charles University, Faculty of Science, Czech Republic / Technische Universitat Darmstadt, Institute and Laboratory of Geotechnics, Germany / Mekelle University, Ethiopia / Building & Housing Research Center, Iran / International Institute of Earthquake Engineering and Seismology (IIEES), Iran / Agricultural Research and Educational Organization (AREO), Iran / European Commission's Joint Research Centre, IPSC/HSU, Italy / University of Firenze, Earth Sciences Department, Italy / Center of Geological Environment, Geological Agency of Indonesia/ University of Gadjah Mada, Indonesia/Ehime University, Faculty of Engineering, Japan / Forestry and Forest Product Research Institute, Japan / Japan Landslide Society / Kyoto University, Disaster Prevention Research Institute, Research Section for Innovative Disaster Prevention Technology and Policy, Japan / Kyoto University, Disaster Prevention Research Institute, Research Centre on Landslides, Japan / Niigata University, Research Center for Natural Hazards and Disaster Recovery, Japan / University of Tokyo (Institute of Industrial Science and Department of Civil Engineering, Geotechnical Engineering Group), Japan /Korea Institute of Geoscience and Mineral Resources (KIGAM) / Mara University of Technology, Malaysia / International Centre for Integrated Mountain Development (ICIMOD), Nepal / International Centre for Geohazards (ICG) in Oslo, Norway / Grudec Ayar, Peru / Proexrom S.R.L. Technical University, Civil Engineering Faculty, Romania / Federal State Unitary Geological Enterprise Scientific Centre HydGeo, Russia / Russian Academy of Sciences, Institute of Environmental Geoscience (IEG RAS) / Russian Academy of Sciences, Institute of the Geospheres Dynamics / Unified Energy System of Russia, Open Joint-Stock Company Engineering Centre / Engprotection, Russia / Comenius University, Faculty of Natural Sciences, Department of Engineering Geology, Slovakia / University of Ljubljana, Faculty of Civil and Geodetic Engineering (UL FGG), Slovenia / Swedish Geotechnical Institute / Swiss Federal Institute for Snow and Avalanche Research (SLF) / Ministry of Agriculture and Cooperatives, Land Development Department, Thailand / U.S. Geological Survey, USA / National Aeronautics and Space Administration (NASA), Goddard Space Flight Center, Laboratory for Atmospheres, USA / Institute Hydroingeo, State Committee of Geology of Uzbekistan

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