



# International Consortium on Landslides

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

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## 1. Outline of the International Consortium on Landslides

- ICL was established by adopting its *statutes* in January 2002. It was registered as a legal body (No.1300-05-005237) under the Japanese law in the Kyoto Prefectural Government, Japan in August 2002.
- ICL established the *UNITWIN* (University Twining and Networking) Cooperation Programme on Landslide risk mitigation for society and the environment with UNESCO and Kyoto University in March 2003. The *UNITWIN* Headquarters Building was constructed by ICL and Kyoto University in Kyoto University Uji Campus in September 2004. The programme was developed to Landslide and water –related disaster risk management for society and the environment in November 2010.
- ICL founded “*Landslides*” : *Journal of the International Consortium on Landslides* in 2004. It is a quarterly journal published by Springer Verlag. It was approved as an ISI journal since 2005, and shall move to a bimonthly journal from Vol.10 in 2013.
- ICL has founded the International Programme Landslides (IPL) by adopting the *2006 Tokyo Action Plan* together with 7 global stakeholders. It exchanged MoU to promote IPL with the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Meteorological Organization (WMO), the Food and Agricultural Organization of the United Nations (FAO), the United Nations International Strategy for Disaster Reduction (UNISDR), the United Nations University (UNU), the International Council for Science (ICSU), the World Federation of Engineering Organizations (WFEO) in 2006.
- The *IPL Global Promotion Committee* (IPL-GPC) was established following the 2006 Tokyo Acton Plan to manage IPL activities including *IPL projects*, the World Landslide Forum (WLF) every three years, and the World Centres of Excellence on Landslide Risk Reduction (*WCoEs*) to be identified at WLF.
- ICL was approved as a scientific research organization (No. 94307) which can receive the scientific grant of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan in March 2007 and registered in the cross-ministerial research and development management system (e-Rad) of all ministries of Japan (No.5010000002) in May 2008.
- ICL was approved to be a NGO having operational relations with UNESCO in April 2007. It was reclassified as NGO with the consultative partnership with UNESCO in March 2012.
- IPL-GPC organized the First World Landslide Forum (*WLF1*) at the United Nations University, Tokyo, in November 2008.
- IPL-GPC organized the Second World Landslide Forum (*WLF2*) at the Food and Agriculture Organization of the United Nations, Rome, in October 2011.
- ICL held the ICL 10<sup>th</sup> anniversary meeting, Kyoto, Japan in January 2012 and adopted the *ICL Strategic Plan 2012-2021*.

## 2. Members of ICL (as of 1 June 2012)

No	Country/ Region	Member Organization	Board Member	Deputy Member
1	Albania	Albanian Geological Survey	Adil Neziraj	Mimoza Jusufati
2	Brazil	CENACID – UFPR (Centro de Apoio Científico em Desastres   Center for Scientific Support in Disasters – Federal University of Parana)	Renato Eugenio de Lima	Lazaro Valentim Zuquette
3	Canada	Geological Survey of Canada	Rejean Couture	Andree Blais-Stevens
4	China	China Geological Survey	Yueping Yin	Zuochen Zhang
5	China	Northeast Forestry University	Wei Shan	Ying GUO
6	China	Bureau of Land and Resources of Xi'an	Dangsheng Tian	Tieming Liu, Shiyan Wu
7	China	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	Cui Peng	Su Lijun
8	Colombia	Universidad Nacional de Colombia	Guillermo Avila Alvarez	Alvaro Jaime González García
9	Croatia	Croatian Landslide Group from Faculty of Civil Engineering University of Rijeka and Faculty of Mining, Geology and Petroleum Engineering University of Zagreb	Zeljko Arbanas	Snjezana Mihalic
10	Croatia	City of Zagreb, Emergency Management Office	Pavle Kalinić	Kristina Martinović
11	Czech Republic	Charles University, Faculty of Science	Vit Vilimek	Jiri Zvelebil
12	European Commission	Joint Research Centre (JRC), European Commission	Javier Hervás	Luca Montanarella
13	Germany	Technische Universität Darmstadt, Institute and Laboratory of Geotechnics	Rolf Katzenbach	Gregor Bachmann
14	Honduras	Universidad Politécnica de Ingeniería, UPI	Luis Eveline	Jance Carolina Funes
15	India	National Institute of Disaster Management, New Delhi	Satendra	Surya Prakash
16	Indonesia	Gadjah Mada University	Dwikorita Karnawati	Teuku Faisal Fathani
17	Iran	Building & Housing Research Center	S. H. Tabatabaei	
18	Iran	Soil Conservation and Watershed Management Research Institute (SCWMRI)	Z. Shoaie	Nader Jalali
19	Iran	International Institute of Earthquake Engineering and Seismology (IIEES)	Mohammadreza Mahdaviyar	Ebrahim Haghshenas
20	Italy	University of Firenze, Earth Sciences Department	Nicola Casagli	Filippo Catani

No	Country/ Region	Member Organization	Board Member	Deputy Member
21	Italy	ISPRA-Italian Institute for Environmental Protection and Research	Claudio Margottini	Giuseppe Delmonaco
22	Italy	University of Roma "La Sapienza"	Gabriele Scarascia-Mugnozza	Paolo Mazzanti
23	Japan	Kyoto University, DPRI,	Kaoru Takara	Yousuke Yamashiki, Hiroshi Fukuoka
24	Japan	University of Tokyo, Inst. of Industrial Science and Geotechnical Group	Kazuo Konagai	Ikuo Towhata
25	Japan	Niigata University, Research Institute for Natural Hazards and Disaster Recovery	Hideaki Marui	Naoki Watanabe
26	Japan	Forestry and Forest Product Research Institute	Kazuo Suzuki	Hiroataka Ochiai
27	Japan	Japan Landslide Society	Daisuke Higaki	Akihiko Wakai
28	Korea	Korea Institute of Geoscience and Mineral Resources (KIGAM)	Byung-Gon Chae	Seung Won Jeong
29	Korea	Korean Society of Forest Engineering	Hoseop Ma	Sangjun IM, Jonghak Lee
30	Malaysia	Slope Engineering Branch, Public Works Department of Malaysia	Ashaari Mohamad	Che Hassandi Abduliah
31	Malaysia	Mara University of Technology	Mohd Jamaludin Md. Noor	Haryati Awang
32	Mexico	Institute of Geography, UNAM	Irasema Alcantara-Ayala	Manuel Mendoza-Lopez
33	Nepal	International Centre for Integrated Mountain Development (ICIMOD)	Madhav Karki	Mandira Shrestha
34	Nigeria	Department of Geology, University of Nigeria, Nsukka	Igwe Ogbonnaya	Celestine Okagbue
35	Norway	International Centre for Geohazards, (ICG) in Oslo	Farrokh Nadim	Bjørn Kalsnes
36	Peru	Grudec Ayar	Raul Carreno	
37	Russia	Department of Engineering and Ecological Geology, Geological Faculty, Moscow State University	Oleg Zerkal	Julia V. Frolova
38	Russia	JSC "Hydroproject Institute"	Alexander Strom	
39	Russia	Russian Academy of Sciences, Sergeev Institute of Environmental Geoscience (IEG RAS)	Victor Osipov	Svalova Valentina
40	Serbia	University of Belgrade, Faculty of Mining and Geology	Biljana Abolmasov	Gordana Hadzi-Nikovic

No	Country/ Region	Member Organization	Board Member	Deputy Member
41	Slovakia	Comenius University, Faculty of Natural Sciences, Department of Engineering Geology	Ján Vlčko	Vladimír Greif
42	Slovenia	University of Ljubljana, Faculty of Civil and Geodetic Engineering (ULFGG)	Matjaz Mikos	Bojan Majes
43	Slovenia	Geological Survey of Slovenia	Marko Komac	Magda Carman
44	South Africa	Engineering Geoscience Unit, Council for Geoscience, South Africa	S Diop	SG Chiliza
45	Sri Lanka	Central Engineering Consultancy Bureau (CECB)	N Rupasinghe	A A Virajh Dias
46	Chinese Taipei	National Taiwan University, Department of Civil Engineering	Liang-Jeng Leu	Ko-Fei Liu
47	Thailand	Ministry of Agriculture and Cooperatives, Land Development Department	Paitoon Kadeethum	Saowanee Prachansri
48	Thailand	Asian Disaster Preparedness Center(ADPC)	Bichit Rattakul	NMSI Arambepola
49	Ukraine	Institute of Telecommunication and Global Information Space	Oleksandr M. Trofymchuk	Yuriy I. Kalyukh
50	USA	U. S. Geological Survey	Peter T. Lyttle	Lynn Highland
51	Uzbekistan	Institute Hydroingeo, State Committee of Geology of Uzbekistan	Niyazov R.A.	Bazarov Sh. B.
52	Viet Nam	Institute of Transport Science and Technology	Nguyen Xuan Khang	Dinh Van Tien

## ICL Supporting Organizations

1	The United Nations Educational, Scientific and Cultural Organization (UNESCO)
2	The World Meteorological Organization (WMO)
3	The Food and Agricultural Organization of the United Nations (FAO)
4	The United Nations International Strategy for Disaster Reduction (UNISDR)
5	The United Nations University (UNU)
6	The International Council for Science (ICSU)
7	The World Federation of Engineering Organizations (WFEO)
8	The International Union of Geological Sciences (IUGS)

### 3. INTERNATIONAL CONSORTIUM ON LANDSLIDES

A non-profit making Consortium

#### STATUTES

##### I: DENOMINATION

1. ICL: The International Consortium on Landslides, hereinafter named “ICL” is an international non-governmental and non-profit making scientific organization.

##### II: OBJECTIVES

2. The principal objectives are to:
  - a) promote landslide research for the benefit of society and the environment, and capacity building, including education, notably in developing countries;
  - b) integrate geosciences and technology within the appropriate cultural and social contexts in order to evaluate landslide risk in urban, rural and developing areas including cultural and natural heritage sites, as well as to contribute to the protection of the natural environment and sites of high societal value;
  - c) combine and coordinate international expertise in landslide risk assessment and mitigation studies, thereby resulting in an effective international organization which will act as a partner in various international and national projects; and
  - d) promote a global, multidisciplinary Programme on landslides.

##### III: Background and Domicile

3. The International Consortium on Landslides (ICL) was created in 2002 as a result of several international initiatives by specialists in the field of landslides:
  - the international newsletter “Landslide News”, published since 1986 by the Japan Landslide Society in cooperation with UNESCO and other international organizations and experts;
  - the 1999 Memorandum of Understanding between UNESCO and the Disaster Prevention Research Institute, Kyoto University, Japan (DPRI/KU) concerning cooperation in research for landslide risk mitigation and protection of the cultural and natural heritage as a key contribution to environmental protection and sustainable development in the first quarter of the twenty-first century; and
  - the 2001 Tokyo Declaration “Geoscientists tame landslides” in the UNESCO/IGCP Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage.

The domicile of ICL is Kyoto, Japan, where the Secretariat is located. ICL is legally registered as a non-profit organization (No.1300-05-005237) according to the Japanese law in the Kyoto Prefectural Government. The official languages of the Consortium are English and Japanese.

## IV : MEMBERS

4. Members are those organizations that support the objectives of ICL intellectually, practically and financially. Membership is for a minimum period of two years. Members will come from one of four categories:
  - a ) Intergovernmental organizations
  - b ) Non-governmental organizations
  - c ) Governmental organizations and public organizations
  - d ) Other organizations and entities.

## V: OBSERVERS

5. Relevant UN entities and Governmental entities may wish to delegate **Observers** as Special Supporting Organizations to the Steering Committee and the Board of Representatives.

## VI: ASSOCIATES

6. **Associates** are organizations and individuals who support the objectives of ICL and meet the appropriate financial obligations but do not qualify for Member status.

## VII: SUPPORTERS

7. **Supporters** are other organizations and individuals who support the objectives of ICL and provide funds for its activities.

## VIII: BOARD OF REPRESENTATIVES

8. Full power for the management of the affairs of the Consortium is vested in the Board of Representatives, which will meet at least annually. The quorum and internal regulations are defined by the bylaws.
9. The Board of Representatives shall be composed of representatives of the Member organizations. Each Member organization shall designate one Representative and one Alternative Representative.
10. In the absence of a Member's Representative from any meeting of the Board of Representatives, the alternative representative may attend the meeting and exercise all the rights, powers and privileges of the absent Representative. Alternatively, the Representative may delegate his rights, powers and privileges to another Member of ICL for that particular meeting, or authorize him/her to act and vote on his behalf.
11. The Board of Representatives shall:
  - a ) determine general policy;
  - b ) initiate scientific programmes and decide on future priorities for the activities of ICL;

- c) approve or change, if necessary, the budget and accounts;
  - d) examine and decide on each application for Member, Associate or Supporter status;
  - e) elect the Officers of ICL in accordance with the Bylaws;
  - f) terminate the status of any Member, Associate or Supporter of ICL which has failed to fulfill any of its obligations or when the association is no longer considered appropriate, in accordance with the Bylaws
  - g) change the Statutes and Bylaws;
  - h) deal with other items which may be referred to it.
12. Voting will be decided on a simple majority. Each Member shall have one vote. Normally the President of ICL will not vote but in the event of a tie, the President may have the casting vote.

## IX: STEERING COMMITTEE OF THE BOARD

13. The Steering Committee of the Board shall consist of:
- a) the President, between 2 and 4 Vice Presidents, the Executive Director, the Treasurer and the immediate past president;
  - b) Co-opted Members from the board recommended by the President to act as Assistants to the President during his term of office; and
  - c) a limited number of “ex officio” observers from the United Nations Educational, Scientific, 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 (ISDR) Secretariat, the United Nation University (UNU), the International Council for Science (ICSU), the World Federation of Engineering Organizations (WFEO), the Ministry of Education, Culture, Sports, Science and Technology (MEXT) Japan, and other organizations as may be considered appropriate.
14. The Steering Committee, which duly reflects the international character of the consortium, reports to the Board of Representatives. It oversees the operations of ICL and recommends the direction and priorities of ICL to the Board of Representatives.
15. The Steering Committee shall meet as often as necessary and at least annually. Its duties are to:
- a) prepare the Agenda for the meetings of the Board of Representatives;
  - b) present to each annual meeting of the Board of Representatives a report of the scientific and administrative activities of ICL since the previous ordinary meeting of the Board of Representatives;
  - c) propose a draft budgetary outline for consideration by the meeting of the Board of Representatives and recommend the scale of annual membership fees to be paid by Members **and Associates** for the ensuing 3-year period; and
  - d) review the scientific activities of ICL and make appropriate recommendations to the meeting of the Board of Representatives.



## X: SECRETARIAT

16. The Secretariat is responsible for the day-to-day operations of ICL. It consists of the Executive Director, the Treasurer and other secretarial members. The number of secretarial members may vary and will depend on the extent of the activities of ICL.
17. The Secretariat prepares for and reports to the meetings of the Steering Committee including:
  - a) preparation of an annual work plan for the scientific and administrative activities of ICL;
  - b) preparation of an annual budget and financial report for ICL;
  - c) preparation of an annual report of the scientific and administrative activities of ICL; and
  - d) dissemination of the results of landslide studies undertaken by/through ICL.

## XI: GENERAL ASSEMBLY

18. In order to report and disseminate the activities and achievements of ICL, a General Assembly shall be convened once every three years by inviting Members, Associates and Supporters of ICL, individual members within those organizations and all levels of co-operating organizations and individual researchers, engineers and administrators. The General Assembly will receive reports on ICL's activities and provide a forum for open discussion and new initiatives from all participants.
19. Symposia and Field Workshops shall be organised annually or as appropriate at/or between the General Assemblies, in order to present the scientific and technological progress achieved through ICL activities and to disseminate new proposals and new scientific initiatives.

## XII: OFFICERS

20. The Officers of ICL shall consist of the President and Vice Presidents, the Executive Director, the Treasurer and the Immediate Past President. They shall meet and communicate as often as is deemed necessary.
  - a) The **President** of ICL shall preside at all meetings of the General Assembly, the Board of Representatives and the Steering Committee and shall perform such other duties and exercise such other powers as shall be assigned by the Board of Representatives.
  - b) The **Vice Presidents** shall assist the President and in his absence preside at meetings and exercise the powers of the President in his place.
  - c) The **Executive Director**, except as otherwise provided by the Board of Representatives, shall be the chief executive officer of the Consortium and execute contracts and agreements with external parties on behalf of ICL. The Executive Director, upon the approval of the Steering Committee, may appoint secretaries, working groups or committees to assist in carrying out the business of the Consortium.
  - d) The **Treasurer**, in accordance with the financial regulations to be developed, approved by the Board of Representatives and set out in the Bylaws, shall collect and receive and have charge and custody of the funds and securities of the Consortium. The accounts of the Consortium shall be prepared at the end of each calendar year and submitted by the Treasurer to the Board of Representatives after having been audited by two authorized auditors appointed by the Board of Representatives.

e) Election and Terms of Office

The President and Vice Presidents shall be elected by the Board of Representatives, in accordance with the Bylaws, and hold office for a term of three years, beginning from January 1st of the year following the ordinary meeting of the Board of Representatives at which he or she has been elected. The President and Vice Presidents may be re-elected but may not hold the same office for more than two consecutive terms. The Executive Director and Treasurer shall each be recommended by the President and the Vice Presidents and approved by the Board of Representatives. They shall hold office for three calendar years beginning from January 1st of the year following the meeting of the Board of Representatives at which they have been approved. The Executive Director and the Treasurer may each be re-elected for no more than three consecutive terms.

### **XIII: FINANCE**

21. The funds of ICL are obtained from:

- a) membership fees from Members;
- b) contributions from Special Supporting Organizations;
- c) membership fees from Associates;
- d) funds from Supporters;
- e) other subventions, donations and financial support; and
- f) funds for research and investigation projects on landslide risk mitigation which are requested by third parties and accepted by ICL.

### **XIV: MEMBERSHIP FEES**

22. Annual membership fees for Members, Associates and Supporters are decided by the Board of Representatives.

### **XV: TERMINATION OF MEMBERSHIP**

23. Notification of termination of Membership must be given to the Treasurer at least one year in advance.

### **XVI: MODIFICATION OF THE STATUES**

24. Changes to the Statutes require approval by a quorum of the Board of Representatives with a minimum two-thirds majority of the votes cast.

25. Changes to the Bylaws require approval by a quorum of the Board of Representatives with a simple majority votes cast.

# International Consortium on Landslides Bylaws

1. This Bylaw will define the internal regulation for the management of the International Consortium on Landslides.
2. Quorum and Internal Regulations of the Board of Representatives defined by Chapter VIII: Board of Representatives, Article 8 are:
  - 1) Quorum is defined as half of the members; and
  - 2) Decisions of the Board of Representatives are made by majority vote. When the votes are equally divided, the chairperson decides.
3. Alternative representation defined by the Board of Representatives described in Chapter VIII: Board of Representatives, Article 10 is:
  - 1) If a representative of ICL will be absent and asks his alternative or another member to act and vote on his behalf, the president must be informed in writing before the meeting of the Board of Representatives.
4. Election of Officers defined by XII: Officers, Article 20 are:
  - 1) President shall be elected by a quorum of the Board of Representatives with a simple majority of votes cast.
  - 2) Vice presidents shall be recommended by the nominating committee, the latter consists of five individuals who shall be approved by the Board of Representatives.
5. Membership fees by Chapter XIV: Article 22 are:
  - 1) Membership fees for Members are 5,000 US\$ for full membership;
  - 2) Membership fees for universities, academic societies, other less funded entities in developed countries are 3,000 US\$;
  - 3) Membership fees for developing countries are 500US\$, 1,000US\$ or 2,000US\$;
  - 4) Membership fees for Supporters are 500 US\$ or more;
  - 5) The financial year of ICL starts on 1 January and ends on 31 December; and
  - 6) Membership fees for the current year must be paid one month before the ordinary BOR meeting.

## Note:

### Conditions for Members and Supporters

**Members** have the right to participate and vote in the Board of Representatives, which has full power for the management of the affairs of the consortium. Members will receive a minimum of two hard copies of the journal and one access right to the web version of the journal.

**Supporters** will receive information, news and reports on ICL and IPL.

The list of supporters appear in IPL web "<http://www.iplhq.org/>" as well as in each issue of the journal. They will receive one hard copy of the journal and access to the web version of the journal They may attend the Board of Representatives as observers, if invited.

## 4. Thematic and Regional Network of ICL

ICL has decided to establish thematic and regional networks to promote its thematic and regional activities of International Consortium (ICL) on Landslides and the International Programme on Landslides (IPL) at the 10<sup>th</sup> Session of Board of Representatives of ICL held at the headquarters of the Food and Agriculture Organization of the United Nations (FAO) in Rome, Italy on 5 October 2011. It shall intensify collaboration within ICL members and cooperation with non-ICL organizations. Proposals of thematic and regional networks were examined at the 10<sup>th</sup> anniversary meeting of ICL held on 17-20 January 2012 in Kyoto, Japan. 94 members from 23 countries attended and discussed the ICL Strategic Plan for the second decade of ICL in 2012-2021. The following 8 networks have been approved and currently ongoing.

ICL Adriatic-Balkan Network		
Coordinator	Snježana Mihalić	University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Zagreb, Croatia E-mail: smihalic@rgn.hr
Co-coordinator	Željko Arbanas	University of Rijeka, Faculty of Civil Engineering, Rijeka, Croatia
Co-coordinator	Biljana Abolmasov	University of Belgrade, Faculty of Mining and Geology, Belgrade, Serbia
Member organizations <ol style="list-style-type: none"> <li>1. Croatian Landslide Group (UNIRI-GF &amp; UNIZG-RGNF), Croatia</li> <li>2. University of Ljubljana, Faculty of Civil and Geodetic Engineering, Ljubljana, Slovenia</li> <li>3. University of Belgrade, Faculty Mining and Geology, Belgrade, Serbia</li> <li>4. Geological Survey of Slovenia, Ljubljana, Slovenia</li> <li>5. Albanian Geological Survey, Tirana, Albania</li> <li>6. The City of Zagreb, OEM - City Office of Emergency Management, Croatia</li> </ol>		
ICL Latin-American Network		
Coordinator	Irasema Alcántara-Ayala	Institute of Geography, National Autonomous University of Mexico (UNAM), Mexico City, Mexico, E-mail: irasema@igg.unam.mx
Deputy-coordinator	Renato Eugenio de Lima	CENACID, UFPR, Center for Scientific Support in Disasters, Federal University of Paraná-UFPR, Parana, Brazil
Member organizations <ol style="list-style-type: none"> <li>1. Institute of Geography, National Autonomous University of Mexico (UNAM)</li> <li>2. CENACID, UFPR, Center for Scientific Support in Disasters, Federal University of Paraná-UFPR, Parana, Brazil</li> <li>3. GRUDEC AYAR, Cusco, Peru</li> <li>4. Universidad Politécnica de Ingeniería, UPI, Tegucigalpa, Honduras</li> <li>5. Universidad Nacional de Colombia, Facultad de Ingeniería, Bogota, Colombia</li> </ol>		

### ICL North-East Asia Network

Coordinator	KaoruTakara	Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan, E-mail: takara.kaoru.7v@kyoto-u.ac.jp
Deputy-coordinator	Sangjun Im	Department of Forest Sciences, College of Agriculture and Life Sciences, Seoul National University, Korea
Deputy-coordinator	Xiaochun Li	China Geological Survey, Beijing, China

#### Member organizations

1. Korea Institute of Geoscience and Mineral Resources (KIGAM)
2. Korean Society of Forest Engineering
3. China Geological Survey
4. Northeast Forestry University
5. Bureau of Land and Resources of Xi'an
6. Institute of Mountain Hazards and Environment, Chinese Academy of Sciences
7. Japan Landslide Society
8. University of Tokyo, Geotechnical Engineering Group, Civil engineering
9. Niigata University, Research Institute for Natural Hazards and Disaster Recovery
10. Forestry and Forest Product Research Institute
11. Disaster Prevention Research Institute, Kyoto University, Japan

### ICL Landslides Risk Management Network

Coordinator	Surya Parkash	National Institute of Disaster Management, New Delhi-110002, India, Email: suryanidm@gmail.com
Deputy-coordinator	Dwikorita Karnawati	Geological Engineering Department, Faculty of Engineering, Universitas Gadjah Mada, Yogyakarta 55281, Indonesia

#### Member organizations

1. Gadjah Mada University, Indonesia (WCoE)
2. Geological Survey of Canada
3. Institute of the Geospheres Dynamics, Russian Academy of Sciences, Russia (WCoE)
4. University of Firenze, Italy
5. Building & Housing Research Centre, Iran
6. Institute of Geography, UNAM, Mexico
7. Durham University, United Kingdom

### ICL Capacity Development Network

Coordinator	Dwikorita Karnawati	Geological Engineering Department, Faculty of Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia. E-mail: dwiko2007@yahoo.co.id
Deputy-coordinator	Yin Yueping	China Institute of Geo-environmental Monitoring, China Geological Survey
Deputy-coordinator	Irasema Alcántara-Ayala	Institute of Geography, National Autonomous University of Mexico (UNAM), Mexico City, Mexico

#### Member organizations

1. Geodynamic Research Center - branch of JSC "Hydroproject Institute", Russia
2. Disaster Prevention Research Institute, Kyoto University, Japan
3. National Institute of Disaster Management, New Delhi, India
4. Institute of Geography at the National Autonomous University of Mexico (UNAM), Mexico
5. China Institute of Geo-environmental Monitoring, China Geological Survey
6. Faculty of Engineering, Gadjah Mada University, Indonesia
7. International Institute of Earthquake Engineering and Seismology (IIEES), Iran
8. Central Engineering Consultancy Bureau (CECB), Sri Lanka

### ICL Landslides in Cold Regions Network

Coordinator	Wei Shan	Northeast Forestry University, China, E-mail: shanwei456@163.com
Deputy-coordinator	Alexander Strom	JSC "Hydroproject Institute", Russia
Deputy-coordinator	Hideaki Marui	Niigata University, Research Institute for Natural Hazards and Disaster Recovery, Japan

#### Member organizations

1. Northeast Forestry University, China
2. JSC "Hydroproject Institute", Russia
3. Research Institute for Natural Hazards and Disaster Recovery, Niigata University, Japan
4. Geological Survey of Canada
5. Department of Earth Sciences, University of Firenze , Italy
6. Department of Geosciences, Shimane University, Japan
7. College of Construction Engineering, Jilin University, China
8. College of Geology Engineering and Geomatics, Chang'an University, China.
9. Department of Geography, University of Zurich, Switzerland
10. Ministry of Forests, Lands and Natural Resource Operations, Canada
11. Earth Cryosphere Institute SB RAS, Russia
12. Georadar Division, IDS Ingegneria Dei Sistemi S.p.A. Italy

### ICL Landslides and Cultural & Natural Heritage Network

Coordinator	Claudio Margottini	ISPRA-Italian Institute for Environmental Protection and Research, Italy. E-mail: claudio.margottini@gmail.com
Deputy-coordinator	Vit Vilimek	Charles University, Faculty of Science, Department of Physical Geography and Geoecology, Czech Republic. E-mail: vilimek@natur.cuni.cz

#### Member organizations

1. ISPRA-Italian Institute for Environmental Protection and Research, Italy.
2. Charles University, Faculty of Science, Department of Physical Geography and Geoecology, Czech Republic (WCoE)
3. Institute of Geography, National Autonomous University of Mexico (UNAM)(WCoE)
4. Comenius University, Faculty of Natural Sciences, Department of Engineering Geology, Bratislava, Slovakia

### ICL Landslide Monitoring and Warning Network

Coordinator	Matjaž Mikoš	Faculty of Civil and Geodetic Engineering University of Ljubljana, Ljubljana, Slovenia, E-mail: matjaz.mikos@fgg.uni-lj.si
Deputy-coordinator	Hiroataka Ochiai	Forestry and Forest Product Research Institute, 1 Matsunosato, Tsukuba, Ibaraki, 305-8687 Japan
Deputy-coordinator	Željko Arbanas	University of Rijeka, Faculty of Civil Engineering, Rijeka, Croatia

#### Member organizations

1. Charles University, Faculty of Science, Department of Physical Geography and Geoecology, Czech Republic (WCoE)
2. Comenius University, Faculty of Natural Sciences, Department of Engineering Geology, Bratislava, Slovakia
3. Croatian Landslide Group from Faculty of Civil Engineering, University of Rijeka, Croatia & Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Croatia
4. Forestry and Forest Product Research Institute, Tsukuba, Japan
5. Gadjah Mada University, Faculty of Engineering, Department of Civil and Environmental Engineering, Yogyakarta, Indonesia (WCoE)
6. Geological Survey of Slovenia, Ljubljana, Slovenia
7. Public Works Department of Malaysia, Slope Engineering Branch, Kuala Lumpur, Malaysia
8. University of Florence, Department of Earth Sciences, Italy (WCoE)
9. University of Ljubljana, Faculty of Civil and Geodetic Engineering, Ljubljana, Slovenia (WCoE)
10. University of Niigata, Research Institute for Natural Hazards & Disaster Recovery, Niigata, Japan (WCoE)

# B International Programme on Landslides (IPL)

## 1. Outline of International Programme on Landslides (IPL)

The International Consortium on Landslides (ICL) was established to create a new global multidisciplinary programme on landslides on 21 January 2002. The First Session of Board of Representatives (BOR) was held at UNESCO Headquarters, Paris on 19-21 November 2002. 33 initial members of ICL participated and decided to launch a new International Programme on Landslides (IPL) in cooperation with UNESCO and adopted 8 coordinating projects and 14 member projects of IPL at the first BOR. The most important coordinating project was C100 “Landslides” : Journal of International Consortium on Landslides to create a new international journal on landslides as a core of all projects to collect and disseminate information and to develop and integrate the study of landslides to an independent field of science. The initial journal was published and distributed from Springer Verlag in April 2004 through the preparation since November 2002.

### Development of IPL to a global cooperation programme

The United Nations World Conference on Disaster Reduction was held on 18–22 January 2005 in Kobe, Japan. At this conference, the ICL proposed the organization of a thematic session to develop the IPL within the WCDR, and it was approved by the United Nations Secretariat for the International Strategy for Disaster Risk Reduction. With financial support from the Cabinet Office of Japan, the Ministry of Education, Culture, Sports, Science and Technology of the Government of Japan (MEXT), and the Disaster Prevention Research Institute of Kyoto University, the thematic conference Session 3.8 “New International Initiatives for Research and Risk Mitigation of Floods (IFI) and Landslides (IPL)” was organized together with ICL supporting organizations and also the flood group. Session 3.8 was opened with the addresses by Koïchiro Matsuura (Director-General of UNESCO), Michel Jarraud (Secretary-General of WMO), and others. The session was chaired by Hans van Ginkel (Rector of UNU) with Andras Szollosi-Nagy (Director of Division of Water Sciences, UNESCO) as moderator. The ICL proposed a **Letter of Intent** to promote further joint global activities in disaster reduction and risk prevention through “Strengthening research and learning on ‘Earth system risk analysis and sustainable disaster management’ within the framework of the ‘United Nations International Strategy for Disaster Reduction’ (ISDR)” . This Letter of Intent was agreed and signed by heads of seven global stakeholders of UNESCO, WMO, FAO, UNISDR, UNU, ICSU, and WFEO as shown in the next page. Based on this Letter of Intent, ICL, UNESCO, WMO, FAO, UNISDR, UNEP, UNU, and Kyoto University jointly organized the Round Table Discussion (RTD) “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 International Programme on Landslides (IPL)” on 18–20 January 2006 at Elizabeth Rose Hall of the United Nations University, Tokyo, Japan. The RTD was cosponsored by Japanese and international governmental and non-governmental organizations. The 2006 Tokyo Action Plan was adopted as the result of RTD. This Action Plan has developed IPL to a new global International Programme on Landslides by ICL, UNESCO, WMO, FAO, UNISDR, UNU, ICSU, and WFEO. The logo of IPL was decided as shown above. (See B-2. 2006 Tokyo Action Plan).





## LETTER OF INTENT

"United Nations World Conference on Disaster Reduction (WCDR)", Kobe, Japan, 18-22 January 2005

This 'Letter of intent' aims to provide a platform for a holistic approach in research and learning on 'Integrated Earth system risk analysis and sustainable disaster management'.

### Rationale

- Understanding that any discussion about global sustainable development without addressing the issue of Disaster Risk Reduction is incomplete;
- Acknowledging that risk-prevention policies including warning systems related to Natural Hazards must be improved or established;
- Underlining that disasters affect poor people and developing countries disproportionately;
- Stressing that after years of under-investment in preventive scientific, technical and communicational infrastructure activities it is time to change course and develop all activities needed to better understand natural hazards and to reduce the vulnerability notably of developing countries to natural hazards, and
- Acknowledging that a harmful deficiency in coordination and communication measurements related to Disaster Risk Reduction exists.

### Proposal

Representatives of United Nations Organisations, as well as the Scientific (ICSU) and Engineering (WFEO) Communities propose to promote further joint global activities in disaster reduction and risk prevention through

**Strengthening research and learning on 'Earth System Risk Analysis and Sustainable Disaster Management' within the framework of the 'United Nations International Strategy for Disaster Risk Reduction' (ISDR).**

More specifically it is proposed,



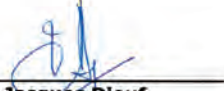
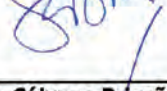

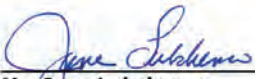

based on the existing structural framework of the ISDR and plan of action of the UN-WCDR, as well as other relevant networks and institutional and international expertise,

**to establish specific, goal-oriented 'Memoranda of Understanding' (MoUs) between international stakeholders targeting Disaster Risk Reduction, for example focusing on landslide risk reduction, and other natural hazards.**

### Invitation

Global, regional and national competent institutions are invited to support this initiative by joining any of the specific MoUs following this letter through participation in clearly defined projects related to the issues and objectives of any of the MoUs.

### Signatories:

 <b>Mr. Koichiro Matsuura</b> Director-General United Nations Educational, Scientific and Cultural Organization	 <b>Mr. Michel Jarraud</b> Secretary-General World Meteorological Organization	 <b>Mr. Jacques Diouf</b> Director-General Food and Agriculture Organization of the United Nations	 <b>Mr. Salvano Briceño</b> Director UN International Strategy for Disaster Risk Reduction
<u>4 MAR 2005</u> Date	<u>22. 3. 2005</u> Date	<u>21. VI. 2005</u> Date	<u>19.01.05</u> Date
 <b>Mr. Hans van Ginkel</b> Rector United Nations University	 <b>Ms. Jane Lubchenco</b> President International Council for Science	 <b>Ms Françoise Come</b> Executive Director World Federation of Engineering Organizations	
<u>19.01.05.</u> Date	<u>21.04.05</u> Date	<u>27/2/2005</u> Date	

The International Consortium on Landslides (ICL) proposed the "Letter of Intent" at the thematic session 3.8 "New International Initiatives for Research and Risk Mitigation of Floods (IFI) and Landslides (IPL)" of the United Nations World Conference on Disaster Reduction held on 19 January 2005 in Kobe, Japan. This is the Letter of Intent, which was electronically combined based on the original Letters of Intent, formally approved and signed by all parties. All of the original Letters of Intent with signatures are deposited in the secretariat of the International Consortium on Landslides which is located in the Research Centre on Landslides of the Disaster Prevention Research Institute, Kyoto University.



### International Consortium on Landslides

Secretariat : Research Centre on Landslides, Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan  
Web: [http://ICL\\_dpri.kyoto-u.ac.jp](http://ICL_dpri.kyoto-u.ac.jp), E-mail: [jimu@landslide.dpri.kyoto-u.ac.jp](mailto:jimu@landslide.dpri.kyoto-u.ac.jp), Tel: +81-774-38-4110, Fax: +81-774-32-5597

## 2.

## **“2006 Tokyo Action Plan”**

# Strengthening Research and Learning on Landslides and Related Earth System Disasters for Global Risk Preparedness



(A joint photo of the participants to the Round Table Discussion)

### Adopted in the **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 International Programme on Landslides (IPL) -  
on 18-20 January 2006 at United Nations University, Tokyo, Japan

#### **Organized by**

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 Environment Programme (UNEP), United Nations University (UNU), Kyoto University (KU)

#### **Cosponsored by**

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), Ministry of Foreign Affairs, Italy, Italian Civil Protection Department (Presidency of the Council of Ministers), Ministry of Environment of the Slovak Republic, Ministry of Environment of the Czech Republic, National Emergency Management Agency of Korea, Embassy of Switzerland in Japan, Science Council of Japan (SCJ), Japan International Cooperation Agency (JICA), International Union of Geological Sciences (IUGS), Academy of Forest, Wood and Environment, Japan (AFWE), Japan Landslide Society (JLS)

Web: <http://icl.dpri.kyoto-u.ac.jp>

## “2006 Tokyo Action Plan”

### Strengthening Research and Learning on Landslides and Related Earth System Disasters for Global Risk

Adopted in the Round Table Discussion on 20 January 2006  
in Elizabeth Rose Hall of the United Nations University, Tokyo

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) 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. The following action plan was adopted as a summary of the meeting, to be implemented within the scope of the Hyogo Framework for Action 2005-2015, “Building the Resilience of Nations and Communities to Disasters”, declared at the United Nations World Conference on Disaster Reduction held in Kobe, Japan in 2005.

#### Preamble

Large and small landslides occur almost every year in nearly all regions of the world. Figure 1 shows the example for casualties in Japan for 1967-2004. Landslide disasters in Japan have occurred every year; the total number of deaths due to landslides is about one half of those caused by earthquakes, including the catastrophic 1995 Kobe earthquake.

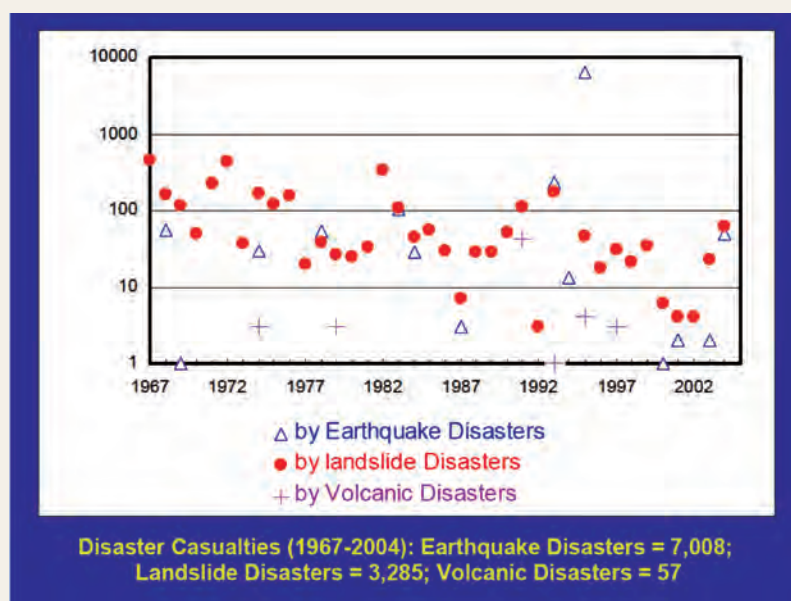


Figure 1 Comparison of the numbers of victims in Japan from 1967-2004 due to landslide disasters, earthquake disasters including deaths by earthquake-induced-landslides, and volcanic disasters including deaths due to volcanic gas (The statistic of victims by landslide disasters since 1967 was published by the Sabo Technical Center).

“Landslides” are a complex-disaster phenomenon that can be caused by earthquakes, volcanic eruptions, heavy rainfall (typhoons, hurricanes), sustained rainfall, heavy snowmelt, unregulated anthropogenic developments, mining, and others (Fig. 2a). Large-scale coastal or marine landslides are known to cause tsunami waves that kill many people; an example was the 1792 UNZEN-Mayuyama landslide, which caused a devastating tsunami that resulted in 16,000 fatalities from the landslides and the tsunami in Japan. Also large-scale landslides on volcanoes can dislocate the mountain tops and trigger volcanic eruptions; such was the case for the 1980 eruption of Mount St. Helens in the USA and presumably for Mt. Bandai in Japan. Landslides also may occur without earthquakes, heavy rains, volcanic eruptions, or human activities due to progress of natural weathering; therefore, they occur almost everywhere in the world. Landslides most commonly impact residents living on and around slopes.

Landslides are a natural phenomenon which can only be effectively studied in an integrated, multi-disciplinary fashion, including contribution from different natural and engineering sciences (earth and water sciences), and different social sciences. This is also the case because landslides are strongly related to cultural heritage and the environment (Fig. 2b). Landslides should be jointly managed by cooperation of different ministries and departments of government including some representing education, science and technology, construction and transportation, agriculture, forestry, and the environment, culture and vulnerable groups (the poor, aged, handicapped, or children). As landslides are highly localized phenomena it is crucial to seek the contribution of local governments or autonomous communities (Fig. 2c).

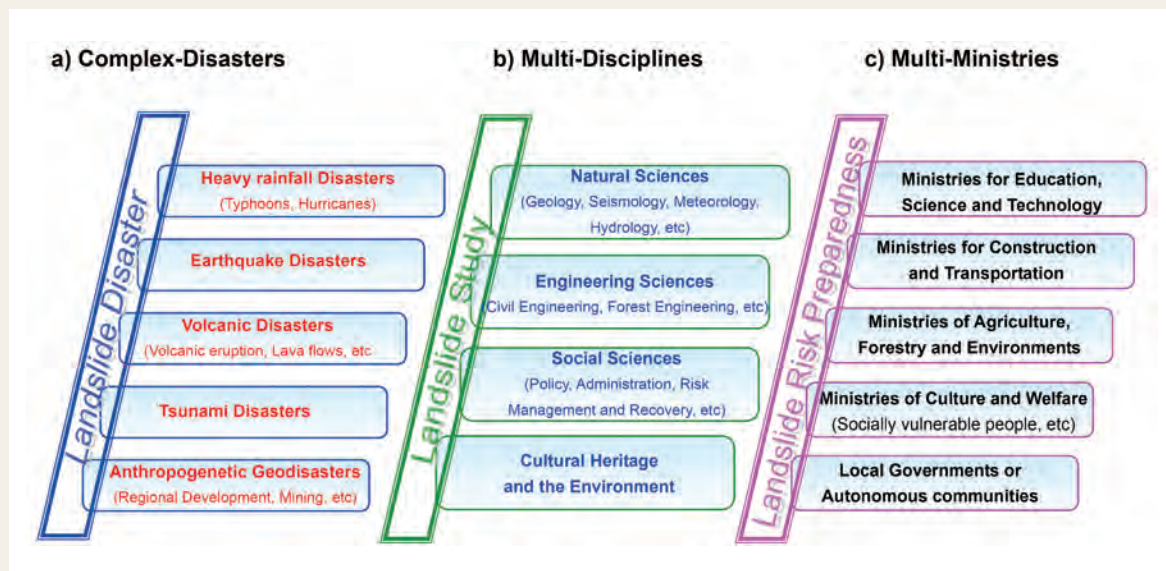


Figure 2 Characteristics of landslide disasters.

The disasters caused by landslides are of very complex nature wherever they occur around the world. Research on landslides should be integrated into a new multi-disciplinary science field of landslide study. Landslide risk preparedness is to be managed by multi-ministries.

## Action Plan

Global cooperation in landslide-risk reduction research and learning will be carried out encompassing related disasters affecting the earth-system, such as heavy rainfall, earthquakes, volcanic eruptions, tsunamis, and disasters of anthropogenic origin. Establishment of a ‘Dynamic Global Network of the International Programme on Landslides’ and its operation will effectively function for landslide and related risk reduction through the implementation of the following Action Items adopting a multi-hazard, multi-sectoral approach;

## Actions

### 1. Establishment of the IPL Framework

#### 1) Establishment of the IPL Global Promotion Committee

The IPL Global Promotion Committee shall be established by ICL members and ICL supporting organizations, as illustrated in Figure 3. The committee will meet annually, on the occasion of ICL Board of Representative meetings, or possibly at other occasions and locations. The committee will conceive a strategy to promote the 2006 Tokyo Action Plan, and will discuss the management of IPL global cooperation fields, and their possible modification, selection, and termination.

#### 2) Establishment of IPL World Centre

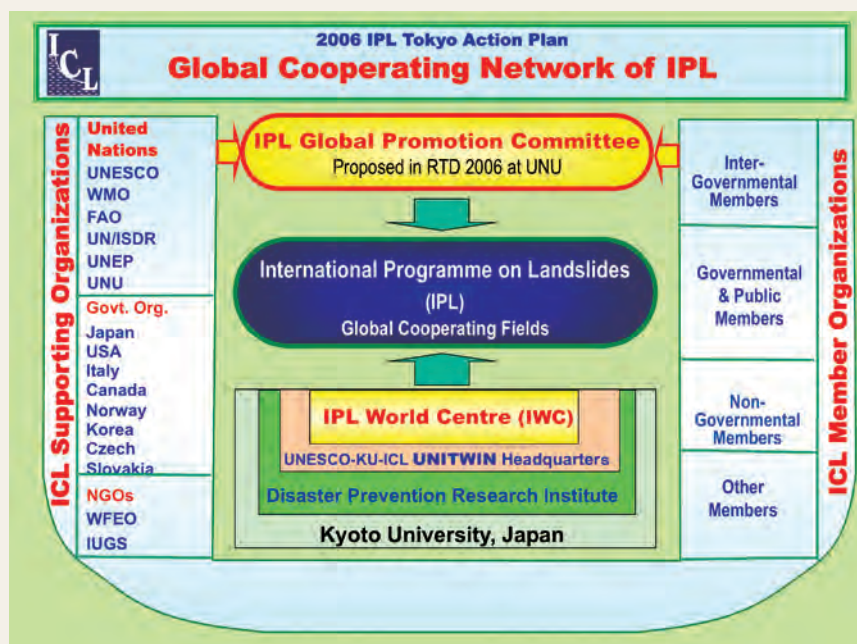


Figure 3 Structure of the IPL global-cooperation framework.

The IPL World Centre will be established to coordinate and support implementation of the global cooperating fields of the International Programme on Landslides (IPL), which works as the secretariat

of the IPL Global Promotion Committee and the International Programme on Landslides (IPL). The Centre will be hosted by the Headquarter of the UNESCO-KU-ICL UNITWIN Cooperation Programme “Landslide Risk Mitigation for Society and the Environment” in the Research Centre on Landslides, Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan, where the secretariat of the International Programme on Landslides has been located since its foundation in 2002.

## **2. Promotion of the Global Cooperating Fields of the International Programme on Landslides (IPL)**

### **(1) Technology Development**

#### **A. Monitoring and Early Warning**

- Use of various on-site, in-situ technologies, as well as satellite observations in monitoring landslide effects and contributing factors for early-warning purposes
- Development of automated monitoring methods covering large spatial extent and real-time data communication, as well as low-cost monitoring devices
- Development of early-warning methodologies, in particular for rain-induced landslides
- Applications linking meteorological, hydrological and landslide models

#### **B. Hazard Mapping, Vulnerability and Risk Assessment**

- Hazard Mapping at local and global scales
- Vulnerability assessment, considering human life, land resources, structures, infrastructure, and cultural heritage
- Risk assessment and communicating risk in an easily understood manner

### **(2) Targeted Landslides: Mechanisms and Impacts**

#### **A. Catastrophic Landslides**

- Catastrophic landslides induced by natural and anthropogenic factors such as rainfall, earthquakes, volcanic activity, river erosion, and human activities, and their combinations
- Landslides threatening human lives and high societal values
- Gigantic coastal landslides and marine landslides causing tsunamis

#### **B. Landslides Threatening Heritage Sites**

- Studies for protection of cultural heritage, cultural landscape, and the natural heritage from landslides using non-invasive technologies and appropriate mitigation strategies (e.g. Machu Picchu, Bamiyan, Lishan, Cordillera Blanca)

### **(3) Capacity Building**

#### **A. Enhancing Human and Institutional Capacities**

- Building human capacities and expertise in landslide management
- Institution building at national and local levels through Centers of Excellence
- Enhancing implementation and action at local level

## **B. Collating and Disseminating Information/ Knowledge**

- Developing a culture of awareness on landslide risks
- Developing model policy frameworks, standards, guidelines/checklists, and training modules.

## **(4) Mitigation, Preparedness and Recovery**

### **A. Preparedness**

- Strengthening disaster preparedness of all stakeholders
- Strengthening capacities of communities and local institutions to cope with landslide hazards
- Forecasting and providing early warning of adverse conditions likely to lead to landslide activity
- Preparing contingency recovery plans, including pre-positioning of technical and material resources for likely landslide events

### **B. Mitigation**

- Development of innovative, low-cost, and ecologically appropriate landslide mitigation techniques.
- Mountain conservation methods, including soil conservation, forest and watershed management, and appropriate land-use techniques
- Appropriate civil engineering works, including construction and urban and coastal development;
- Restricting inappropriate development in landslide prone areas
- Development of appropriate policy and planning mechanisms, such as land-use management (including zoning)
- Promotion and strengthening of monitoring and warning systems

### **C. Recovery**

- Post-landslide recovery and rebuilding efforts should integrate landslide mitigation measures
- Prevention of secondary risks of landslides resulting from inappropriate re-building efforts in response to any disaster (for example, earthquakes, volcanic eruptions, extreme weather events, etc.)
- Implementation of landslide recovery efforts and programmes (including psycho-social and health aspects) with the participation of affected communities and local authorities
- Providing long-term support to ensure sustainable recovery

## **3. Promotional Activities**

### **(a) World Landslides Forum**

Capitalizing on the competence, international experience and established organizational

network of ICL-IPL, it is proposed to create a global information platform for future joint activities of the world-wide landslide community, named the 'World Landslide Forum' that shall be convened every 3 years.

The first World Landslides Forum – organized by the ICL – can be planned to take place in January 2009, bringing together academics, practitioners, politicians, et al. to a global, multidisciplinary, problem-focused platform. This forum will provide an opportunity for the first identification of a WCoE. Linkages to ISDR activities, as well as other global events, including the World Water Forum, the International Year of Planet Earth, etc., will be established.

**(b) Identification and Promotion of World Centres of Excellence on Landslide Risk Reduction**

The IPL Global Promotion Committee will identify and promote World Centres of Excellence (WCoE) every 3 years 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.

**(c) Contributions to Global Landslide Issues**

The IPL will mobilize global cooperation for strengthening research and learning on risk reduction for landslides and related earth system disasters at sites identified as of great concern to the global community, such as Macchu-Picchu, the Kashmir, Central Asia high mountainous area, and Bamiyan.

**(d) Partnerships**

Mutually beneficial partnerships with other global initiatives, such as the International Hydrological Program (IHP), the International Geoscience Program (IGCP), and The Mountain Partnership will be developed.

**Note:**

The 2006 Tokyo Action Plan was proposed based on the Letter of Intent which was signed by UNESCO (Director General: Koïchiro Matuura), WMO (Secretary-General: Michel Jarraud), FAO (Director-General: Jacques Diouf), UNISDR (Director: Salvano Briceno), UNU (Rector: Hans van Ginkel), ICSU (President: Jane Lubchenco) and WFEO (Executive Director: Françoise Come). The Letter of Intent is shown in B-1 Outline of International Programme on Landslides (IPL), and also reported in the following article.

Sassa K (2006) “2006 Tokyo Action Plan” -strengthening Research and Learning on Landslides and Related Earth System Disasters for Global Risk Preparedness. *Landslides*, Vo.3. No4, pp:360-369.



### 3. IPL Projects

IPL projects are proposed by one or more ICL members or by IPL-Global Promotion Committee by submitting the **IPL project proposal form** by 30 March every year. Proposal form will be evaluated by IPL Evaluation Committee. Proposer or a member of the project is requested to orally explain the project in the IPL-GPC which will be organized together with the Board of Representatives (BOR) of ICL each year. IPL-GPC will decide the approval of proposed project based on the evaluation committee report, oral presentation and discussion. Each IPL Project leader with ongoing status is requested to submit the annual report of the project by 30 March each year.

The IPL project may authorize the leader and the accepted project by the IPL Global Promotion Committee. The project, leaders, and the annual report are uploaded in IPL WEB <http://www.iplhq.org/>. The progress and the research results are invited to contribute to **Landslides** : Journal of International Consortium on Landslides.

The achievements of IPL Projects are evaluated every three years. Three successful IPL projects will be identified at the World Landslide Forum. The leaders will receive 3000 USD per project with the certificate. (See C-3: Awards and Honours of ICL and IPL)



#### Left

One of three certificates of success IPL projects awarded at WLF2 held at FAO in 2011.

#### Bottom

A joint photo of the leaders of three projects and the chair of the evaluation committee of IPL Award for Success, Dr. Badaoui Rouhban (Director, Section for Disaster Reduction at UNESCO).



## List of ongoing IPL Projects

IPL Number	Project Leader (s)	Title	Note
101-2	Jan Vlcko	Landslides monitoring and slope stability at selected historic sites in Slovakia	2008
101-3	Claudio Margottini	The geomorphological instability of the Buddha niches and surrounding cliff in Bamiyan valley (Central Afghanistan)	2008
105	Kyoji Sassa	Early Warning of Landslides	2008
106-1	Claudio Margottini,	Landslide museum in Civita di Bagnoregio	2008
106-2	Alexander Strom	International Summer School on Rockslides and Related Phenomena in the Kokomeren River Valley, Tien Shan, Kyrgyzstan	2008
112	Saowanee Prachansri	Landslide mapping and risk mitigation planning in Thailand	2008
132	Wei Shan and Fawu Wang,	Research on vegetation protection system for highway soil slope in seasonal frozen regions	2008
134	Alexander Strom	Large-scale rockslides in coarse-bedded carbonate rocks in the Apennines (Italy), Caucasus (Russia) and Zagros (Iran): evaluation of possible triggers and hazard assessment	2008
138	Yueping Yin	Long run out and Catastrophic Landslides study: Yigong Landslide, Tibet China.	2008
139	Ikuo Towhata and Taro Uchimura	Development of low-cost early warning system of slope instability for civilian use	2008
141	Jiří Zvelebil	Geo-Risks Management for Third World Countries - Mapping and Assessment of Risky Geo-factors for Land Use (e.g. in Ethiopia)	2008
142	Yueping Yin	Seismic landslide hazards mapping in Sichuan	2008
143	AA Virajh Dias	Evaluation of Sensitivity of the Combined Hydrological Model (Dynamic) for Landslide Susceptibility Risk Mapping in Sri Lanka	2008
IPL-144	Bjørn Kalsnes	SafeLand – Living with landslide risk in Europe: Assessment, effects of global change, and risk management strategies.	2009

IPL Number	Project Leader (s)	Title	Note
IPL-145	S.H.Tabatabaei	Preparation of Landslide Risk Map in Taleghan Area- IRAN.	2009
IPL-146	Rustam Niyazov	Spatial monitoring of joint influence of an atmospheric precipitation and seismic motions on formation of landslides in Uzbekistan (Central Asia).	2009
IPL-147	Che Hassandi Abdullah	Study on Debris Flow Controlling Factors and Triggering Mechanism in Peninsular Malaysia	2009
IPL-149	Rejean Couture	Canadian Landslide Best Practice Manual.	2009
IPL-150	Ogbonnaya Igwe	Capacity building and the impact of climate-driven changes on regional landslide distribution, frequency and scale of catastrophe.	2009
IPL-151	Bojan Majes	Soil matrix suction in active landslides in flysch – the Slano Blato landslide case	2009
IPL-152	Gabriele Scarascia Mugnozza	Assessment of coastal landslides risk by innovative remote sensing techniques.	2009
IPL-153	Oleksandr M. Trofymchuk	Landslide hazard zonation in Kharkov region of Ukraine using GIS	2009
IPL-154	Hideaki Marui	Development of a methodology for risk assessment of the earthquake-induced landslides.	2009
IPL-155	AA Virajh Dias	Determination of soil parameters of subsurface to be used in slope stability analysis in two different precipitation zones of Sri Lanaka.	2009
IPL-156	N.M.S.I. Arambepola	Best Practices for Early Warning of Landslides in a Changing Climate Scenarios	2009
IPL-157	Kyoji Sassa	Dynamics of subaerial and submarine megaslides	2009
IPL-158	Dwikorita Karnawati	Development of Community-based Landslide Early Warning System	2009
IPL-159	Faisal Fathani	Development of Education Program for Sustainable Development in Landslide Vulnerable Area through Student Community Service.	2009
IPL-160	Hiroshi Fukuoka	Landslides and floods under extreme weather condition and resilient society	2009

IPL Number	Project Leader (s)	Title	Note
IPL-161	Hideaki Marui	Risk identification and land-use planning for disaster mitigation of landslides and floods in Croatia.	2009
IPL-162	Javier Hervás	Tier-based harmonized approach for landslide susceptibility mapping over Europe	2009
IPL-163	Svalova Valentina	Mechanical-mathematical modeling and monitoring for landslide processes	2009
IPL-165	Dwikorita Karnawati	Development of community-based landslide hazard mapping for landslide risk reduction at the village scale in Java, Indonesia	2010
IPL-166	Surya Parkash	Documentation, Training and Capacity Building for Landslides Risk Management	2010
IPL-167	Wei Shan	Landslides Mechanism and the Subgrade Stability Controlling Measures in Island Permafrost Area	2010
IPL-168	Lynn Highland	Engaging U.S. citizens in Landslide Science through the website, "Did You See It? Report a Landslide"	2010
IPL-169	Oleg V. Zerkal	Landslide hazard and risk assessment in Geyser Valley (Kamchatka)	2010
IPL-170	Gabriel Legorreta Paulín	Landslide susceptibility and landslide hazard zonation in volcanic terrains using Geographic Information System (GIS): A case study in the Río Chiquito-barranca Del Muerto watershed; Pico de Orizaba volcano, México.	2010
IPL-171	Guillermo Ávila	Study of the geotechnical characteristics of an unstable urban area of Barranquilla (Colombia) severely affected for slope instabilities and soil volume changes	2010
IPL-172	Surya Parkash	Documentation, Training and Capacity Building for Landslides Risk Management	2011
IPL-173	Snjezana Mihalic	Croatian virtual landslide data center	2011
IPL-175	Kyoji Sassa & Doan Minh Tam	Development of landslide risk assessment technology and education in Vietnam and other areas in the Greater Mekong Sub-region	2011

## 4. World Centres of Excellence on Landslide Risk Reduction

The World Centres of Excellence on Landslide Risk Reduction were established by the 2006 Tokyo Action Plan; the Global Promotion Committee (GPC) of the International Programme on Landslides (IPL) will identify at the World Landslide Forum organized every 3 years within eligible organizations, such as universities, institutes, NGOs, government ministries and local governments, contributing to “Risk Reduction for Landslides and Related Earth System Disasters” . An independent Panel of Experts, set up by the Global Promotion Committee of International Programme on Landslides (IPL-GPC), endorses the WCoEs. Twelve World Centres of Excellence (WCoEs) 2008-2011 were identified at the First World Landslide Forum in November 2008 at UNU in Tokyo, Japan. The WCoEs for 2011-2014 were identified at the Second World Landslide Forum in October 2011 at FAO, Rome, Italy.

### Objectives of WCoE:

To strengthen the International Programme on Landslides (IPL) and IPL Global Promotion Committee;

To create “A Global Network of entities contributing to landslide risk reduction” ; and

To improve the global recognition of “Landslide Risk Reduction” and its social-economic relevance, and entities contributing to this field.

### Criteria for WCoE Candidates:

Governmental and non-governmental entities such as universities, agencies, and other institutions, and their subsidiary entities (faculties, departments, centres, divisions or others) which meet the following two conditions:

- Contributing to “Risk Reduction for Landslides and Related Earth System Disasters” ; and
- Willing to support IPL intellectually, practically and financially by either joining ICL or contributing to IPL-GPC and promote "landslide research and risk reduction" on a regional and/or global scale in a mutually beneficial manner.

### Guidelines for WCoE:

- 1) Candidates of WCoEs must submit the application form to the Secretariat of the IPL Global Promotion Committee .
- 2) Candidates will be evaluated from their achievements and current activities (scientific, technical and educational capacity, training courses, publications, dissemination of knowledge and information) and planned activities contributing to IPL.
- 3) WCoEs will be identified at every World Landslide Forum (held every 3 years). The status as a WCoE will be given for 3 years until the next Forum.
- 4) Each WCoE must submit an annual activity report each year.
- 5) The status as a WCoE may be extended for another 3 years in the same topics or in a revised topic by the IPL Global Promotion Committee based on the activities carried out as a WCoE.

### Procedure of identification of WCoEs

1. Application of WCoEs will be submitted to IPL Global Promotion Committee.
2. The secretariat will evaluate its eligibility of applicant from criteria.

3. Application forms from eligible organizations will be evaluated by the technical evaluation committee of the IPL Global Promotion Committee.
4. Technical evaluation results will be submitted to the Independent Panel of Experts for recommendation with endorsement of candidates of WCoEs.
5. Recommendation of WCoEs will be submitted from the Independent Panel of Experts to the IPL Global Promotion Committee.
6. Organizations approved by the Committee will be identified as WCoEs and released at the World Landslide Forum.

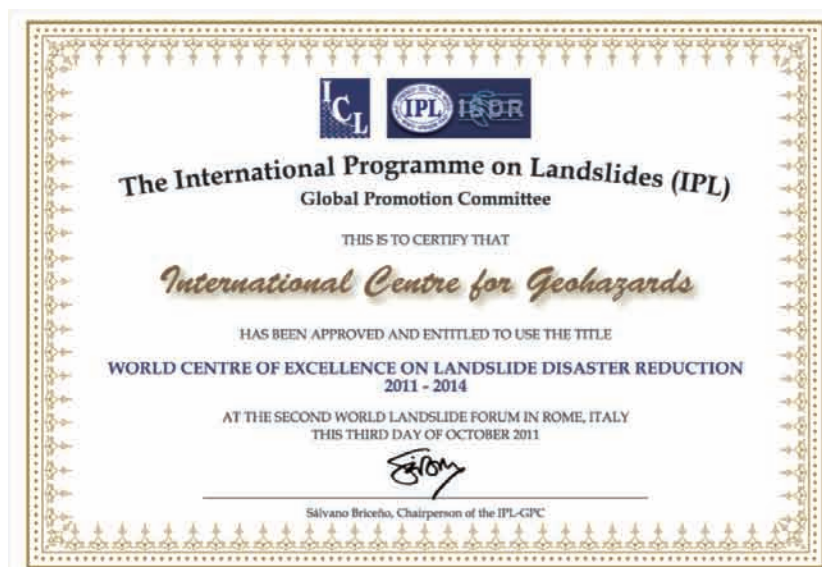
### List of ongoing 15 World Centres of Excellence on Landslide Risk Reduction 2011-2014

1.	Canada	Geological Survey of Canada	Peter Bobrowsky : pbobrows@nrca.gc.ca
		Canadian Landslide Loss Risk Reduction Strategy and Implementation	
2.	China	China Geological Survey	Yueping Yin : yyueping@mail.cgs.gov.cn
		Risk Assessment and Disaster Mitigation Code for Long Run-out Landslides	
3.	Czech Republic	Charles University, Faculty of Science	Vit Vilimek : vilimek@natur.cuni.cz
		Scientific research for landslide risk analysis and international education for mitigation and preparedness	
4.	European Commission	Joint Research Centre, European Commission	Javier Hervás : javier.hervas@jrc.ec.europa.eu
		Research on landslide risk management harmonisation in support to European Union policy making.	
5.	India	National Institute of Disaster Management	Surya Parkash : suryanidm@gmail.com
		Training, Research and Documentation on Landslides Risk Management	
6.	Indonesia	Universitas Gadjah Mada	Dwikorita Karnawati : dwiko2007@yahoo.co.id
		Development of Community-based and Most Adaptive Technology for Landslide Risk Reduction.	
7.	Italy	Dept of Earth Science, University of Florence	Nicola Casagli, Filippo Catani : nicola.casagli@unifi.it, filippo.catani@unifi.it
		Advanced Technologies for Landslides	
8.	Japan	The Japan Landslide Society	Keizo Ugai : office@landslide-soc.org
		Development of a methodology for risk reduction of earthquake-induced landslides	
9.	Japan	Niigata University, Institute for Natural Hazards and Disaster Recovery	Hideaki Marui : maruihi@niigata-u.ac.jp
		Risk identification and land-use planning for disaster mitigation of landslides	
10.	Mexico	National Autonomous University of Mexico	Irasema Alcántara-Ayala : irasema@igg.unam.mx
		Landslide monitoring and community based early warning systems	
11.	Norway	International Centre for Geohazards	Farrokh Nadim : farrokh.nadim@ngi.no
		Research on mitigation of landslide risk and training of specialists.	

12.	Russia and Kyrgyz	Inst. of Geospheres Dynamics of Russian Academy of Sciences & Kyrgyz Institute of Seismology	Alexander Strom: a_strom@yahoo.co.uk
		Annual Summer School on Rockslides and Related Phenomena in Kyrgyzstan.	
13	Slovenia	University of Ljubljana, Faculty of Civil and Geodetic Engineering	Bojan Majes: bojan.majes@fgg.uni-lj.si
		Mechanisms of landslides in over-consolidated clays and flysch	
14	Thailand	Asian Disaster Preparedness Center	N.S.M.I. Arambepola: arambepola@adpc.net
		Promoting Knowledge, Innovations and Institutions with South-South focus through a Regional network of Landslide Risk Reduction	
15	USA	U.S. Geological Survey Landslide Programme	Peter Lyttle: plyttle@usgs.gov
		Scientific Research for Landslide Hazard Analysis, U.S. Geological Survey	



A joint photo of leaders of the identified World Centres of Excellence on 3 October 2011



An example of certificate of WCoEs for International Centre for Geohazards in Norway.

## 5. Report of the Second World Landslide Forum 2011 in Rome, and Plan of the Third World Landslide Forum 2014 in Beijing

The Second World Landslide Forum (WLF2) was held at the headquarters of Food and Agriculture Organization of the United Nations (FAO) on 3-9 October 2011 in Rome, Italy. The Third World Landslide Forum (WLF3) is to be held at the China National Convention Center in Beijing, China from 2-6 June 2014. This section first outlines the aims and background of the World Landslide Forums, reports on the Second World Landslide Forum in Rome, and then announces the plans for the Third World Landslide Forum in Beijing. Finally, it calls for contributions to the organization of WLF3 and support for the activities of ICL and IPL.

### Background of World Landslide Forum

The International Consortium on Landslides (ICL) was established by the 2002 Kyoto Declaration "Establishment of an International Consortium on Landslides", with Statutes adopted in January 2002. The Objectives of the Consortium and the **General Assembly** (its successor from 2008 is the World Landslide Forum) are stated in the Statutes XI (See A-3 Statutes of ICL or <http://icl.iplhq.org/>)

**XI: General Assembly:** In order to report and disseminate the activities and achievements of the consortium, a General Assembly shall be convened every three years by inviting Members of the International Consortium on Landslides, individual members within those organizations, and all levels of co-operating organizations and individual researchers, engineers and administrators. The General Assembly will receive reports on Consortium activities and provide a forum for open discussion and new initiatives from all participants.

### The First General Assembly 2005 to the First World Landslide Forum 2008

The First General Assembly was organized at the Keck Center of the National Academy of Sciences in Washington D.C., USA on 12-14 October 2005. At this Assembly, the first full-color book reporting consortium activities for the initial three years 2002-2005, was published as "Landslides-Risk analysis and sustainable disaster management" through Springer (Sassa et al. 2005). 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) was held at the United Nations University, Tokyo, from 18<sup>th</sup> to 20<sup>th</sup> January, 2006. **The 2006 Tokyo Action Plan** was adopted. (See B-2 or Sassa, 2006). The Tokyo Action Plan established a new global International Programme on Landslides (IPL) including World Landslide Forum (See B-1 and B-2). Accordingly, the second General Assembly 2008 was replaced by the First World Landslide Forum, held at the United Nations University, Tokyo, Japan on 18-21 in November 2008. The detailed report of WLF1 is written in *Landslides*, Vol.6, No.3 (Sassa 2009).

### Report of the Second World Landslide Forum

The Second World Landslide Forum, held on 3-9 October 2011, was subtitled Putting Science into Practice and was organized by the IPL Global Promotion Committee, including the International Consortium on Landslides (ICL), 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 Risk Reduction (UNISDR), the United Nations University (UNU), the



International Council for Science (ICSU), and the World Federation of Engineering Organizations (WFEO), Italian Institute for Environmental Protection and Research (ISPRA) and Earth Science Department of University of Florence.

- 864 people from 63 countries participated. **Table 1** presents the number of participants from each country. 529 people attended from Italy, and 335 people attended from other countries. More than 10 people attended from each of Austria, Canada, China including Taiwan, France, Germany, Japan, Norway, Russia, Spain, Switzerland, and United Kingdom. Participants attended from almost all regions of the world. The number of attendees was greater than expected, and twice the number that attended the First World Landslide Forum 2008 in Tokyo, Japan (430 participants: 175 participants from Japan, and 255 participants from abroad.).
- 25 Technical sessions were organized (**Table 2**), and 465 full papers were submitted. All accepted papers are edited in 7 volumes with partial or full-color illustrations published (in press).

Book Title: Landslide Science and Practice

Editors: Claudio Margottini, Kyoji Sassa and Paolo Canuti

Publisher: Springer-Verlag, Heidelberg, Germany

1. Landslide inventory and susceptibility and hazard zoning (650 pages)
2. Early warning, instrumentation and monitoring (690 pages)
3. Spatial analysis and modelling (480 pages)
4. Global environmental change (420 pages)
5. Complex environment (520 pages)
6. Risk assessment, management and mitigation (430 pages)
7. Social and Economic Impact and Policies (430 pages)

The communicating author will receive one volume containing the accepted paper free of charge; other volumes will be able to be purchased at a discounted price.

- 15 World Centres of Excellences were identified (See B-4 World Centres of Excellence)
- Three projects for IPL Award for Success were identified and Award were bestowed to leaders (See B-3 IPL Projects and C-3 Awards and Honors of ICL and IPL)
- ICL welcomed six new members in 2010 and 2011. Certificates of membership of The International Consortium on Landslides were presented by Executive Director of ICL (Kyoji Sassa) at the closing ceremony of the Forum on 7 October 2011. The new members of ICL in 2010 and 2011 are:
  - 1) ALBANIA: Albania Geological Survey
  - 2) CROATIA: Croatian landslide group from Faculty of Civil Engineering, University of Rijeka and Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb
  - 3) INDIA: National Institute of Disaster Management, New Delhi
  - 4) SERBIA: University of Belgrade, Faculty of Mining and Geology
  - 5) SLOVENIA: Geological Survey of Slovenia
  - 6) VIET NAM: Institute of Transport Science and Technology

Table 1 Participants of the Second World Landside Forum

No	Country	Participants	Percent	No	Country	Participants	Percent
1	Albania	1	0.10%	33	Kyrgyzstan	1	0.10%
2	Algeria	1	0.10%	34	Lithuania	1	0.10%
3	Andorra	1	0.10%	35	Luxembourg	1	0.10%
4	Argentina	2	0.20%	36	Macedonia	1	0.10%
5	Australia	1	0.10%	37	Malaysia	5	0.57%
6	Austria	17	1.97%	38	Malta	2	0.20%
7	Belgium	7	0.80%	39	Mexico	3	0.34%
8	Brazil	6	0.69%	40	Netherlands	8	0.92%
9	Bulgaria	2	0.20%	41	New Zealand	2	0.20%
10	Canada	10	1.15%	42	Nigeria	1	0.10%
11	China	14	1.60%	43	Norway	20	2.31%
12	Colombia	2	0.20%	44	Pakistan	1	0.10%
13	Croatia	7	0.80%	45	Poland	2	0.20%
14	Cyprus	1	0.10%	46	Portugal	2	0.20%
15	Czech Republic	6	0.69%	47	Romania	6	0.69%
16	Denmark	1	0.10%	48	Russia	10	1.15%
17	Estonia	2	0.20%	49	Serbia	2	0.20%
18	Ethiopia	1	0.10%	50	Slovenia	8	0.92%
19	Finland	1	0.10%	51	Slovakia	6	0.69%
20	France	25	2.80%	52	South Korea	2	0.20%
21	Germany	14	1.60%	53	South Africa	1	0.10%
22	Ghana	1	0.10%	54	Spain	24	2.77%
23	Greece	7	0.80%	55	Sri Lanka	4	0.46%
24	Hungary	1	0.10%	56	Sweden	4	0.46%
25	India	7	0.80%	57	Switzerland	20	2.31%
26	Indonesia	3	0.34%	58	Thailand	3	0.34%
27	Iran	1	0.10%	59	Turkey	7	0.80%
28	Ireland	1	0.10%	60	Uganda	1	0.10%
29	Iceland	1	0.10%	61	Ukraine	2	0.20%
30	Italy	529	61.22%	62	United Kingdom	13	1.50%
31	Japan	19	2.19%	63	USA	8	0.92%
32	Kenya	1	0.10%	<b>Total Participants</b>		864	100 %

Table 2 List of General themes and Technical Sessions

General themes	Sessions
Landslide and global change	L01. Landslide scenarios accounting for the climatic, geomorphological and geotechnical context
	L02. Landslides, land-use systems and food security
	L03. Wildfires and slope instability
Advances in landslide mapping and hazard assessment	L04. Landslide inventory and susceptibility and hazard zoning
	L06. Landslides and extreme weather
	L29. Rapid landslide runout analysis
Emerging Technologies in landslide research and practice	L07. Landslide instrumentation and monitoring
	L08. GIS application developments
	L09. Advances in slope stability modelling
Impact of landslides	L10. Landslides and Socio-economic Impact: Basic Data and Loss Modeling
	L11. Landslides, transportation network and lifelines
	L12. Landslides and reservoirs
	L13. Landslide as sediment sources
Landslide risk assesment and management	L15. Landslides and urban risk reduction
	L16. Early warnings and emergency plans
	L17. Advanced technologies for landslide stabilisation
	L14. Landslides (and legislation), policies, cost benefit analysis and decision makers
	L20. Integrated approach to landslide risk mitigation
Landslide awareness and prepardness	L21. Landslide education, training and capacity development
Other general themes	L22. Submarine landslides and tsunami
	L23. Landslides in coastal areas
	L24. Landslides and cultural heritage
	L25. Seismically induced landslides and seismic landslide hazard analysis
	L26. Landslides in cold regions
	L28. Risk mangement in a Multi-hazard environment

## Plan of the Third World Landslide Forum

The Third World Landslide Forum will be held in 2014 in China. The organizer is the IPL Global Promotion Committee, and the host organization is the China Geological Survey.

**Subtitle:** Landslide Risk Mitigation towards a Safer Geo-Environment.

**Date:** 2-6 June (Conference) and 7-11 June (Field Trip) in 2014

**Venue:** China National Convention Center, Beijing, China.

## Topics (Preliminary)

- Recognition and Mechanics
- Monitoring, Prediction and Warning
- Modeling and Advance Technology
- Risk Control for Key Facilities and Urbanization.
- Natural Dams and Landslides in Reservoirs
- Landslide Prevention and Reconstruction for Earthquake Disasters
- Community-based Early Warning and Emergency Responses
- Risk Management and Policy

Session topics and conveners of World Landslide Forum III will be examined in 2012 meetings of the IPL Global Promotion Committee and the ICL Board of Representatives to be held at the Headquarters of UNESCO, Paris on 21-23 November 2012.

## Field Trips on 7-11 June in 2014

Three routes are planned as post-forum trips on landslides.

T1: Loess landslides and their prevention in Northwestern China (Beijing—Xi'an—Lanzhou—Beijing).

T2: Catastrophic landslides triggered by the Wenchuan Ms 8.0 Earthquake and reconstruction (Beijing—Chengdu—Beijing).

T3: Landslide Prevention and Early Warning at the Three Gorges Reservoir (Beijing—Wanzhou—Yichang—Beijing)

## Publication

It is planned that all accepted papers will be edited and published by Springer before the Forum in a series of book volumes with full or partial color illustrations. The communicating author will receive one volume containing the accepted paper free of charge; other volumes will be able to be purchased at a discounted price. An electronic copy of the author's paper will be given to the author free of charge. The first announcement of the Third World Landslide Forum has already been printed. Its pdf is shown in the following pages (WLF3 –1<sup>st</sup> announcement).

## References

Sassa K, Fukuoka H, Wang F, Wang G (Editors. 2005) *Landslides - Risk analysis and sustainable disaster management-Proceedings of the First General Assembly of the International Consortium on Landslides*. Springer, 385 pages, 417 full or partial color images.

Sassa K (2006) "2006 Tokyo Action Plan —strengthening research and learning on landslides and related earth system disasters for global risk preparedness. *Landslides*, Vol.3, No.4: 361-369.

Sassa K (2009) Report of the 2008 First World Landslide Forum on 18-21 November 2008 at UNU, Tokyo. *Landslides*, Vol.6, No.3: 167-179.

Sassa K, Canuti P, Margottini C (2012) The Second World Landslide Forum, Rome, 2011, and the Third World Landslide Forum, Beijing, 2014. *Landslides*, Vol.9, No.2 (in press).

**World Landslide Forum 3**

**LANDSLIDE RISK MITIGATION:**

**TOWARD A SAFER GEO-ENVIRONMENT**



**2-6 JUNE 2014**

**BEIJING**

## BACKGROUND

The World Landslide Forum (WLF) is a triennial mainstream conference aimed at gathering scientists, stakeholders, policy makers and industry dealing with the management of landslide risk. The first WLF was organized in 2008 by the International Consortium of Landslides (ICL), UNESCO, WMO, FAO, UNISDR, UNU, UNEP, IBRD, UNDP, ICSU, WFEQ, KU and the Japan Landslide Society at the United Nations University, Tokyo. The second WLF was organized in 2011 by the IPL Global Promotion committee (ICL, UNESCO, FAO, WMO, UNISDR, UNU, ICSU, WFEQ, IUGS) and ISPRA. Since then, many recent disasters due to mass movements have shown that there is an urgent need to translate science into practical applications for the benefit of local communities, governments and disaster relief organizations.

## OBJECTIVES

The 3<sup>rd</sup> World Landslide Forum aims at the further developing the outcomes of the Second Forum in Rome 2011 by providing a global cross-cutting information and cooperation platform for all types of organizations representing academia, United Nations organisations, governments, private enterprises and individuals that contribute to landslide research, practice, education and decision making and are willing to strengthen landslide and other related Earth system risk reduction strategies.

The emphasis of this forum will be "Toward a safer geo-environment" with special attention given to actual implementation of technology and research in daily applications and procedures with the direct involvement of researchers, engineers, private enterprises, stakeholders as well as policy and decision makers.

## VENUE

The 3<sup>rd</sup> World Landslide Forum will be hosted by China Geological Survey (CGS) at the China National Convention Center, Beijing. The venue is ideal for the 3<sup>rd</sup> Forum, due to its millennial tradition of interaction between human development and natural environment. Three optional post-forum trips typify zones of disasters and mitigation which are highly affected by landslides in China.

## SPECIAL EXHIBITION

An exhibition on major achievements of landslide reduction in China will be organized that involves advanced risk zoning, early warning and stabilized methods, technologies, systems and cases in the Three Gorges Reservoir, the Wenchuan Great Earthquake Zone, and other 18 landslide-prone provinces. The exhibition will be integrated with the Poster area so as to maximise attendance. The marketplace is also builded up.



## FORUM FORMAT AND TOPICS

The Forum will be lasted for five full days, a series of Plenary and Parallel Sessions devoted to high level interaction and discussion among world-wide actors on landslide risk reduction such as stakeholders, end-users together with researchers, engineers and industry.

To stimulate the knowledge sharing, the Forum will also promote a large interactive Exhibition of technologies and services for landslide risk mitigation (Technology sessions).

Topical and thematic sessions are envisaged on:

- Recognition and Mechanics;
- Monitoring, Prediction and Warning;
- Modelling and Advanced Technology;
- Risk Controlling on Key Facilities and Urbanization
- Natural Dams and Landslides in Reservoirs;
- Prevention and Reconstruction for Earthquake Disasters;
- Community-based Early Warning and Emergency Response;
- Capacity bulidings and Polices.

A five-day-long post-forum field trip will be organized to visit famous landslide landscapes in the Three Gorge Reservoir area, the Wenchuan earthquake area and the Northwest loess area (7-11 June 2014).

## GENERAL PROGRAM

	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	from June 7 to June 11
	Monday	Tuesday	Wednesday	Thursday	Friday	from Saturday to Wednesday
Morning	ICL Session Registration	Opening Ceremony/ Special Lecture	Parallel Sessions	Special Lectures/ Parallel Sessions	Parallel Sessions	Field Trip
Afternoon	ICL Session Registration	Special Lectures/ Highlevel Panel discussion	Parallel Sessions	Parallel Sessions	Special Lectures/ Closing Ceremony	
Lunch time						

# who should attend

Many relevant stakeholders are expected to attend from a wide range of backgrounds and geographic regions:

- UN institutions and permanent representations
- EU institutions and agencies
- National governments and local administrations
- Civil protection agencies
- Leading industries in new technologies for monitoring, warning, protection, soil/
- Rock stabilization and restoration research and academic institutions
- Natural disasters and environmental NGOs and consumer groups
- Consultancies and professionals
- Insurance and reinsurance companies for natural hazards

## DEADLINES

- Submission of Abstracts: 31 March 2013
- Submission of papers: 1 September 2013
- Registration of Exhibitors: 1 December 2013

## ORGANIZERS

The 3<sup>rd</sup> World Landslide Forum is organized by the Global Promotion Committee of the International Program on Landslides (IPL) and Ministry of Land Resources, China. IPL is a thematic platform on Landslides with UNISDR, promoting landslide research and capacity building for the benefit of society and the environment and including ICL, UNESCO, FAO, UNISDR, WMO, UNU, ICSU, WFEO, IUGS and many research and land management institutions.

## SECRETARIAT

China Institute of Geo-Environment Monitoring (Center of Geological Hazard Emergency, MLR), China Geological Survey

Address: Dahuisi No.20, Haidian District, Beijing, 100081, China

Secretary-General: YIN Yueping, Vice President of International Consortium on Landslides.



# Contact: [www.wlf3.org](http://www.wlf3.org)



# C Management of ICL and IPL

## 1. ICL Strategic Plan 2012-2021 -To create a safer geo-environment-

The International Consortium on Landslides (ICL) was founded on 21 January 2002, during the UNESCO-Kyoto University Joint Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage, as an activity of International Geoscience Programme (IGCP) No.425. A 10<sup>th</sup> anniversary conference was held on 17-20 January at the facility in which ICL's founding meeting had been held. This conference was jointly organized by ICL and ICL-supporting organizations. During the conference the **ICL Strategic Plan 2012-2021: to create a safer geo-environment-** was developed and adopted.

### The ICL 10<sup>th</sup> anniversary conference

On 21 January 2012, ICL entered its second decade, calling for both celebration of ICL's accomplishments and plans for the next decade of achievements. Ninety-six people from 23 countries met in Kyoto from 16–20 January 2012 to develop ICL's Strategic Plan for 2012–2022 and to acknowledge the substantial accomplishments of ICL's past decade. Participants represented ICL members and international organizations of UNESCO, FAO, UNISDR, UNU, ICSU, WFEO, the Integrated Research on Disaster Risk (IRDR), the International Union of Geological Sciences (IUGS). Participants included key players of ICL and ICL supporting organizations through the first decade of ICL: Badaoui Rouhban (Director, Section for Disaster Reduction, UNESCO, draft writer of the 2002 Kyoto Declaration "Establishment of an International Consortium on Landslides), Hans van Ginkel (Former Rector of UNU and the chairperson of the Independent Panel of Experts for the World Centre of Excellence on Landslide Risk Reduction (WCOE)), Salvano Briceño (Former Director of UNISDR, Chair of the Global Promotion Committee of International Programme on Landslides (IPL) and a senior adviser of ICL), Thomas Hofer (host of WLF2, Forestry Department of FAO), Wolfgang Eder (Former Director, Earth Science Section of UNESCO and technical advisor of ICL), Peter Bobrowsky (Secretary General of IUGS, Former Vice President of ICL) as well as ICL President-Paolo Canuti, ICL Executive Director-Kyoji Sassa, and ICL vice presidents: Claudio Margottini (Chair of WLF2) , Kaoru Takara (Japan) and Yueping Yin (China).



Assembled attendees at the tenth anniversary of the founding of ICL in Kyoto on 18 January 2012

The need for ICL to have a strategic plan for its second decade was recognized at the ICL-organized Second World Landslide Forum (WFL2) in Rome, Italy on 3-9 October 2011. The ICL's 10<sup>th</sup> anniversary in January 2012 provided a suitable occasion for key ICL participants to meet for such planning and this was financially supported by Japanese and International organizations.

A small group of participants arriving in Kyoto on the afternoon in one day before the conference, met to discuss a potential structure, content and items to be covered by a 'new' Strategic Plan of ICL. A potential sub-title of the Draft Strategic Plan was suggested: "Multi Hazard Approach to Landslides". The plan's content was to be structured in three chapters with the following items:

#### 1. The first 10 years of ICL (2002-2011)

- Initial Mission
- Achievements
- Knowledge Gaps (Scientific or Regional)
- Relevance (Why Landslide Research? The interest in human disasters)
- Key questions (Type of topics ICL tries to address)

#### 2. The next Decade: ICL 2012 – 2021

- Widening the Scope (Thematic, Institutional, and Geographic)
- International Cooperation & Partnerships
- Sustainability (Inviting Young Generations, etc.)

#### 3. Plan of Action

- Objectives, Activities and Inputs (Logical Frame)
- Regional and Thematic Networks
- Implementation (Members, Fund Raising, etc.)

The first day of the conference was allocated to proposals for regional and thematic networks. Establishment of regional and thematic networks are considered to effectively mobilize self-driven activities under the initiatives of ICL members. It can be a key function of the development of ICL in the second decade. The approved thematic networks and regional networks are as follow.

#### **Thematic networks**

1. Capacity Development Network
2. Landslide Risk Management Network
3. Landslide in Cold Regions,
4. Landslide and Cultural & Natural Heritage Network
5. Landslide Monitoring and Warning Network

#### **Regional networks**

1. Adriatic-Balkan Network
2. North-East Asian Network:
3. Latin American Network

Thereafter, the strategic plan was discussed through the meeting. Numerous components for the Strategic Plan were proposed by all participants. A small working group met in the evening of each day in order to streamline the inputs for the draft document of the Strategic Plan 2012-2021. The result was presented, discussed and amended. The ICL Strategic Plan was adopted, leaving its finalization to a working group. The final version of ICL's strategic plan 2012-2021 was further examined by the working group and finalized as below.

## ICL Strategic Plan 2012-2021

*-To create a safer geo-environment-*

—adopted at the ICL 10<sup>th</sup> Anniversary Conference, Kyoto, 19 January 2012—

The International Consortium on Landslides (ICL) is a non-profit and non-governmental organization consisting (in 2012) of 51 member institutions from 32 countries; its International Programme on Landslides (IPL) was jointly established by the United Nations Educational, Scientific and Cultural Organization (UNESCO), World Meteorological Organization (WMO), Food and Agricultural Organization of the United Nations (FAO), United Nations International Strategy for Disaster Reduction (UNISDR), United Nations University (UNU), International Council for Science (ICSU), International Union of Geological Sciences (IUGS) and the World Federation of Engineering Organizations (WFEO).

Through its '*2006 Tokyo Action Plan*' focusing on "Strengthening Research and Learning on Landslides and Related Earth System Disasters for Global Risk Preparedness" the ILP contributes within the 'International Strategy for Disaster Reduction' (ISDR) to the UN-wide agreed "Hyogo Declaration" and "Hyogo Framework for **Action 2005-2015: Building the Resilience of Nations and Communities to Disasters**".

### Preamble

Landslides pose considerable risks to the geo-environment. They threaten the lives of people and their livestock, destroying buildings, transportation networks, 'life-lines', communities, land-use systems, agricultural production, and cultural and natural heritages. Landslides impact heavily on the livelihoods of affected people, their economic situation, food security and culture. It is a fact that it is often the poorest people who are most seriously affected by these dramatic events.

Hazard (including landslides), vulnerability and risks are well documented, and recent evidence from numerous UN-publications shows that prevention, if prioritized, pays off in the end and is cost-effective. Why then are we not proactively investing in making communities, our geo-environment and our heritage safer?

Thus, the 'ICL Strategic Plan 2012-2021' aims at facilitating and supporting all-hazards preventive approaches, including people-centred early warning systems, and overall risk assessment to create a safer geo-environment. It also aims at enhancing the understanding of landslides and the human and social vulnerability that can transform them into disasters, and proposes concrete, tangible projects to that end.

## Chapter 1 The first 10 years of ICL (2002-2011)

### ● Initial Mission

Based on the achievement of a Japan-China joint project “Assessment of Landslide Hazards in Lishan, Xian, China” within the International Decade for Natural Disaster Reduction (IDNDR) 1990-2000, *IGCP project 425’ Landslide Hazard Assessment and Mitigation for Cultural Heritage Sites and Other Locations of High Societal Value*” was proposed and implemented in 1998-2003. It was widened to a platform for truly international cooperation in the realm of landslide research and capacity development. The UNESCO-Kyoto University joint symposium “Landslide Risk Mitigation and Protection of Cultural and Natural Heritage” was organized on 21-25 January 2002. The ‘International Consortium on Landslides’ (ICL) was established during this symposium with adoption of the 2002 Kyoto Declaration “Establishment of an International Consortium on Landslides (ICL)” .

ICL aimed to pursue the systematic translation of scientific and technological advances into concrete landslide disaster mitigation measures and into educational and informational disaster preparedness tools for the population. ICL was involved in numerous activities dealing with the improvement of relevant monitoring and early warning mechanisms.

### ● ICL Achievements and Accomplishments

#### Outputs

- ▶ During the last 10 years ICL-driven research on problem/solution-focused projects have been identified and strengthened, and
- ▶ ICL research and educational items were positioned within the international scientific community, by:
  - ◇ Cooperation with and through governmental and non-governmental organizations, national and international Scientific Organizations (such as ICSU, WFEO, IUGS, IUGG, IGU), Research Centers and Universities;
  - ◇ Cooperation with UN-agencies (UNESCO, WMO, FAO, UNISDR, UNU);
  - ◇ Participation in UN-Global Platforms for Disaster Risk Reduction (Geneva) as an ISDR Thematic Platform on Landslides, and international meetings (such as IGC, EGU, AGU).
- ▶ 32 issues of the **Journal’ Landslides’** in 2004-2011, as well as 5 full color books, numerous additional publications, organization of two “World Landslide Forums” (in Tokyo in 2008 and Rome in 2011) and the implementation of 91 IPL projects including 43 ongoing IPL Projects have contributed to an increase of ICL’ s international recognition and resulted in growth of ICL membership.

#### Outcomes

- ▶ The identification of 15 “*World Centers of Excellence on Landslide Risk Reduction*” at the second World Landslide Forum and “*3 Regional and 5 Thematic Networks*” at the ICL 10<sup>th</sup> anniversary meeting provided additional driving force;
- ▶ The IPL projects helped to increase the common understanding of the importance of landslide research and served as added value in the field of landslides risk reduction, e.g. by:

- ▶ Raising the profile of landslide-related research through integrating scientific, socio-economic and cultural aspects into multi-hazard approaches,
  - ◇ Recognizing the vulnerability of cultural and natural environments,
  - ◇ Involvement of local communities in risk mapping,
  - ◇ Strengthened capacity building, including training courses,
  - ◇ Implementing monitoring and warning systems in urban, rural, and coastal areas,
  - ◇ Enhanced cooperation between academic and governmental institutions,
  - ◇ Contributing to the mandate of Partner Organizations.

### ● Outstanding Questions and Challenges

Based on numerous activities, undertaken and implemented in the last decade, ICL aims to strengthen and integrate landslide research to create a safer geo-environment in a multi-hazard approach respecting the needs of humanity, by:

- ▶ Analyzing the vulnerability of communities and their social and livelihood components,
- ▶ Highlighting 'Landslide and Global Change' research, notably considering policy applications such as land-use planning, ecosystem and watershed management, food security, disaster-risk reduction and building resilience in adaptation to climate change,
- ▶ Promoting multi-disciplinary research and emerging technologies, such as Remote Sensing, GIS-applications, advanced instrumentation and monitoring,
- ▶ Enhancing International Cooperation and Partnerships in the fields of:
  - ◇ Landslide inventory, mapping and historical landslides
  - ◇ Landslides and urban/rural risk reduction
  - ◇ Prevention policies and legislation
  - ◇ Landslides and Cultural or Natural Heritage
- ▶ Widening the thematic, institutional and geographic scope through themes, such as:
  - ◇ Submarine landslides and tsunamis
  - ◇ Landslides in cold regions (high latitude – high altitude)
  - ◇ Mega-landslides
- ▶ Raising landslide awareness through education and capacity development
- ▶ Furthering - in particular - the education of Young Generations
- ▶ Improving ICL' s Communication and Advocacy through:
  - ◇ Internet activities, web-portals and Social Networking
  - ◇ Media
- ▶ Strengthening ICL' s financial and institutional sustainability.

## Chapter 2 The Next Decade of ICL 2012 – 2021

In order to meet the challenges in the next decade, ICL identifies 7 items:

**1. Broadening the scope and societal impact in a thematic, institutional and geographic manner, by putting emphasis on:**

- ◇ A strong focus on risk reduction and disaster prevention based on land-use planning and management at different scale levels (putting landslides into integrated watershed-, urban infrastructure- and environment-analysis) within a multi-hazard-, as well as multi-, inter-, and trans-disciplinary approach;
- ◇ Developing research partnerships to move from mono-disciplinary to multi-, inter- and trans-disciplinary approaches, including the proper use of local/traditional knowledge;
- ◇ Improving the contributions to food security and livelihoods and the understanding of the impact of disaster prevention progress from simple short-term cost-benefit analysis to more adequate long-term methods;
- ◇ Using and strengthening *Regional and Thematic Networks for landslide risk reduction*
- ◇ Interrelationships between landslides and societal change (e.g. change of governmental policies, risk governance, climate impact, and marginalization of communities).

**2. Enhancing international cooperation and capitalizing on synergies** with other international organizations and programs, such as UNISDR, ICSU/IRDR, CCOP, UNESCO/UNITWIN, IGCP, UNDP, IUGS, IUGG, IGU, ILP, GEO/GEOSS, UNU, FAO, World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR), the Global Network of Civil Society Organizations for Disaster Reduction (GNDR) and academic institutions specialized in landslide risk management.

**3. Raising the profile of ICL to the public at large by:**

▶ **Strengthening the influence on governments and society at the regional, national and international level through partnerships with institutions, such as:**

- ◇ Universities, and other higher education and research institutions,
- ◇ National Geological Surveys, and European Geological Surveys (EGS),
- ◇ NGOs and local networks,
- ◇ Enterprises and business communities (private-public partnerships);

▶ **Making use of international projects, courses, conferences and workshops:**

- ◇ IPL presentations at IGCs, EGU, AGU, GSA for example,
- ◇ Cooperation with UNU and with CCOP and other regional organizations;

▶ **Developing new methods and techniques:**

- ◇ Widening the application of modern research findings to reduce vulnerability,
- ◇ Putting science into practice (e.g. in business, providing consultancies and help);

▶ **Positioning the ICL as the point of reference of all landslide-risk related issues through enhanced communication:**

- ◇ Through the ICL-IPL activities in the International Journal "Landslides" and web-portal of ICL and IPL,

- ◇ By providing statement(s), e.g. on climate changes, on anthropogenic impact;

► **Reinforcing the ICL publications and communication strategy.**

**4. Regional and thematic networks for landslide risk reduction:**

ICL as an international, non-governmental and non-profit scientific organization will work increasingly through regional and/or thematic networks to promote and facilitate landslide risk reduction, whereby:

- ◇ Networks have an open and flexible character,
- ◇ Meet certain criteria,
- ◇ Cooperate with relevant institutions in different sectors of society, in particular the regional, national and local platforms for disaster risk reduction, which include various government sectors, private sector, academic institutions, NGOs and other relevant stakeholders.

**5. Capacity development**

- ◇ Enhance the importance of landslides in education, including higher education,
- ◇ Strengthen training courses within and across countries,
- ◇ Involve local communities in risk mapping, disaster preparedness and early warning,
- ◇ Elaborate and strengthen landslide school networks,
- ◇ Develop strategies to inform the population, increase awareness and create a culture of resilience.

**6. Specific encouragement of young people to specialize on landslide-risk management and disaster prevention**

- ◇ Create a 'Young Scientists Landslide Risk Reduction Award' ,
- ◇ Support students studying landslides risk and stimulate Masters and PhD courses focusing on landslide-risk reduction,
- ◇ Encourage the establishment of a student chapter of ICL.

**7. Enhance the sustainability of ICL**

- ◇ Strengthen ICL' s Secretariat,
- ◇ Explore financial opportunities beyond membership fees, including projects with international funding agencies (bilateral donor agencies and development banks in particular),
- ◇ Enhance the institutional framework,
- ◇ Enlarge the membership and explore different categories of membership,
- ◇ Elaborate on the use of ICL and IPL network to members.

## **Chapter 3 Action Plan**

The International Consortium on Landslides (ICL),

Recalling its

- '2006 Tokyo Action Plan' and
- the listed challenges in ICL' s 'Next Decade' (Chapter 2)

has identified at its 10<sup>th</sup> Anniversary Meeting, held from 16 to 20 January 2012 at Kyoto, Japan, the future global issues of ICL-IPL as follows:

**1. Promoting Multi- and Trans-disciplinary Research, New Research Fields, and Technology Development**

(including sub-items described in Chapter 2, para 1: *Broadening the scope and societal impact in a thematic, institutional and geographic manner*) by:

- ◇ Widened application of modern and advanced technologies, such as GIS, INSAR and Remote Sensing,
- ◇ Promotion of global landslide mapping, monitoring and risk assessment ( 'World Landslide Map' ),
- ◇ Development of monitoring and warning systems for slope stabilization and landslide prevention policies, e.g. through automated methods,
- ◇ Assessment of 'state of the art' in landslide research and practice,
- ◇ Strengthening of relationships with social and economic sciences.

**2. Strengthening the Cooperation with Partner Organization through Concrete Projects**

(including sub-items described in Chapter 2, para 2: *Enhance international cooperation and capitalize on synergies* and para 4: *Regional and/or thematic networks*) by:

- ◇ Improving bi- or multi-lateral cooperation with engineering, water, soil and other communities and programmes (such as GLOF.),
- ◇ Enhancing activities by thematic and regional **networking**, as well as through **World Centers of Excellence (WCoEs)**.

**3. Providing Expertise, Knowledge and Consultancies to Governments**

(including sub-items described in Chapter 2, para 3: *Raising the profile of ICL to the public at large*) by:

- ◇ Positioning ICL as the point of reference of all landslide related issues,
- ◇ Providing statement(s), on for example climate changes and on anthropogenic impact,
- ◇ Improving the recognition and 'marketing' of ICL,
- ◇ Providing expertise in emergency situations.

**4. Capacity Development, Education, and Outreach**

(including sub-items described in Chapter 2, para 5: *Capacity development*; para 6: *Specific encouragement of young people to specialize on landslide-risk management and disaster prevention*) by:

- ◇ Organisation of educational and training courses at all levels, including schools and universities, journalists and politicians,
- ◇ Enhancement of human and institutional capacities,
- ◇ Development of a culture of awareness of landslide risk (creation of a culture of resilience),
- ◇ Inspiration of students, teachers and the public at large by communicating advances in landslide science through the media and museums,
- ◇ Cooperation with World Heritage, National & Geoparks in the field of Landslide Risk Reduction,



- ◇ Development of a project on historical 'Classic Landslides' (demonstration sites, following the models of 'World Heritage Sites' and 'Geosites' ).

#### 5. Communication, Website, Marketing Landslides

- ◇ Enhancement of internal and external communications (e.g. through a web-portal) by highlighting the huge responsibility, the political components, the vulnerability of society at the interface of environment, hazards and society,
- ◇ Promotion of Tele-communication and Tele-conferences,
- ◇ Media contact,
- ◇ Photographic contests.

#### 6. Publications

Reinforcement of the ICL Publication and Communication Strategy through publication of:

- ◇ The Journal 'Landslides' , developing from a quarterly to a bimonthly journal, increasing pages and thematic issues, improving the impact,
- ◇ Proceedings of World Landslide Forums in a series of books with color illustrations e.g. 7 volumes of books for WLF2,
- ◇ Scientific books, handbooks, guidebooks, and 'Proceedings' of ICL and IPL conferences/ symposia
- ◇ Coffee-table books.

#### 7. Enhancement of the sustainability of ICL and Strengthening of ICL's Secretariat

- ◇ Involvement of younger generations in ICL and IPL activities,
- ◇ Recruitment of new members who will deal with landslide-risk reduction work,
- ◇ Recruitment of new members with powerful capacities and potentials on landslides,
- ◇ Development of an effective international work-sharing and collaborating system for the ICL Secretariat.

### Closing Remarks, Summary

The ICL Strategic Plan intends to stimulate specific projects and activities within its **International Programme on Landslides (IPL)** to create a safer geo-environment through strengthening cooperation between scientists and governmental institutions in the field of landslide-risk reduction. Relevant knowledge of geological and engineering sciences, hydrology, geophysics, soil and rock mechanics, meteorology, geomorphology, architecture, forestry, agriculture, culture, communication, and the information, social and human sciences shall be integrated into this endeavour.

Taking into account the big challenges of the new millennium which include inter alia **Global Climate Change and Disasters**, ICL is prepared to contribute through encouraging initiatives to the reduction of risks and losses stemming from landslides including rock falls, rock slides, debris avalanches, debris flows, and pyroclastic flows in urban, rural and coastal regions.

ICL provides an international platform for fostering a culture of prevention of landslide-related disasters. In addition to scientific, socio-economic, educational, and environmental aspects of IPL

projects, selected case studies (such as of Machu Picchu) are highlighting the societal, cultural and natural values to humanity. ICL contributes to the UN-wide actions in disaster and vulnerability reduction, driven by the United Nations **International Strategy for Disaster Reduction (ISDR)**, involving various UN and other international and regional intergovernmental organizations, governments, parliamentarians, local authorities, academic institutions, private sector, civil society organizations, media and other relevant stakeholders at all levels.

## Acknowledgements

ICL thanks all participants and their organizations for their cooperation in discussing and creating ICL strategic plan 2012-2021. Staffs and students from the Disaster Prevention Research Institute are acknowledged for their cooperation for the organization of the conference. The success of this conference is owed to sponsors from the Government of Japan (Ministry of Education, Culture, Sports, Science and Technology and Ministry of Foreign Affairs), UNISDR and UNESCO and their programmes. I would extend my thanks to those organizations and programmes which agreed to our requests on very short notice.

## Sponsors of ICL 10<sup>th</sup> Anniversary Conference



The Strategic Funds for the Promotion of Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan



The Science and Technology Research Partnership for Sustainable Development Programme of MEXT, Japan



The Ministry of Foreign Affairs, Japan (MOFA for ISDR)  
The United Nations Secretariat of the International Strategy for Disaster Reduction (UNISDR)



The United Nations Educational, Scientific and Culture Organization (UNESCO for Disaster Reduction)

## References:

Sassa K, Canuti P, Margottini C, Yin Y (2012) The Second World Landslide Forum, Rome, 2011, and the Third World Landslide Forum, Beijing, 2014. *Landslides* Vol.9 , No.2 (in print).

Sassa K (2012) ICL Strategic plan 2012-2021 -To create a safer geo-environment. *Landslides*, Vol.9, No.2 (in print)

## 2. *Landslides*: Journal of the International Consortium on Landslides

The first issue of the journal *Landslides* was published from Springer Verlag in April 2004 as the core project of the International Programme on Landslides (IPL). This journal is the first full color scientific journal without full color printing fee. The field of landslides are very wide in the related basic science fields. Common information source which all readers may understand is full color photo of landslides. Landslide researchers from geology, geomorphology, geotechnology, geophysics, and landslide dynamics may obtain various aspects of information from the color photos. The journal “*Landslides*” aims to promote landslide research and investigation in the developing countries as well as in developed countries. Published papers of most international journals are shared by researchers in the developed countries. *Landslides* have made the following five categories.

Within these categories, “Recent landslides” will accept recent landslide reports from developing countries where many landslide disasters will occur and “Technical note” will accept case studies in landslides in the less reported countries. “ICL/IPL activities” will report for international information dissemination and cooperation. While original articles will deal the frontier of landslide science and technology. As a central tool of global landslide community, the Journal is planned to provide different functions.

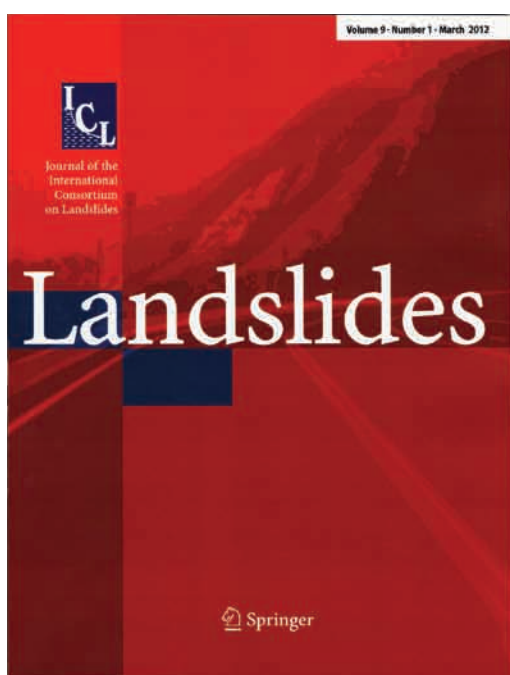


Fig. 2 cover of *Landslides*

1. Original paper (six to 12 pages): original research and investigation results.
2. Review paper (six to 12 pages): review of current research and development of technology in a thematic area of landslides
3. Recent landslide (less than six pages): reports of recent landslides including location (latitude/longitude), plan, section, geology, volume, movement, mechanism and associated disasters.
4. Technical note (less than six pages): research notes, review notes, case studies, progress of technology, and best practice in monitoring, testing, investigation and mitigation measures.
5. ICL/IPL activities: progress of IPL projects and ICL committee activities.

“*Landslides*” received 128 papers in 2009, 112 papers in 2010 and 154 papers in 2011 from about 50 countries as shown in Table

1. The countries are widely spread over the world. The accepted rate is gradually decreasing from 56 % in 2009, 49% in 2010 and 39% in 2011, though the total number of pages has increased from 320 pages/year to 550 pages/year.

*Landslides* became identified as a SCI journal by Thomson Reuters in 2005. The first Impact Factor for *Landslides* was 0.986, released in 2007. The impact factor has increased to 1.625 in 2011. *Landslides* began as 4 issues, each with 80 pages = 320 pages/year. Since 2004, the number of contributions has increased substantially. The total number of printed pages in 2011 was 554 pages. ICL decided to develop the journal from quarterly journal to bimonthly publication from 2013, namely 6 issues, each with 100 pages = 600 pages/year. Frequent publication is both good for fast publication and as a tool for timely information dissemination, especially of ICL-IPL activities.

**Table 1 Number of submitted papers in 2009, 2010 and 2011 from each country**

Country	09	10	11	Country	09	10	11	Country	09	10	11
ALGERIA	0	0	1	GREECE	0	0	3	PAKISTAN	0	1	1
ARGENTINA	1	0	0	INDIA	6	4	12	PERU	1	0	0
AUSTRALIA	2	0	1	INDONESIA	1	0	0	ROMANIA	1	0	5
AUSTRIA	0	2	3	IRAN,	2	4	9	SERBIA & MONTENEGRO	0	1	0
BELGIUM	0	0	1	IRAQ	0	0	1	SINGAPORE	1	0	0
BRAZIL	0	1	1	IRELAND	0	1	0	SLOVAKIA	1	0	1
CANADA	6	8	2	ITALY	24	11	18	SLOVENIA	1	1	2
CHILE	1	0	0	JAPAN	14	11	12	SOUTH AFRICA	1	0	0
CHINA	19	22	30	KOREA	2	1	1	SPAIN	3	5	5
CZECH REPUBLIC	8	3	3	MALAYSIA	3	0	3	SRI LANKA	0	0	1
DENMARK	0	1	1	MEXICO	1	0	1	SWEDEN	0	0	1
EGYPT	1	0	4	NEPAL	0	0	1	SWITZERLAND	1	3	1
ESTONIA	0	1	0	NETHERLANDS	1	2	1	TAIWAN, CHINA	3	3	6
ETHIOPIA	0	0	1	NEW ZEALAND	3	5	1	TURKEY	4	3	4
FRANCE	2	5	2	NIGERIA	0	0	3	UNITED KINGDOM	1	4	1
GERMANY	3	0	0	NORWAY	3	1	0	UNITED STATES	7	8	10
<b>Total</b>									<b>128</b>	<b>112</b>	<b>154</b>

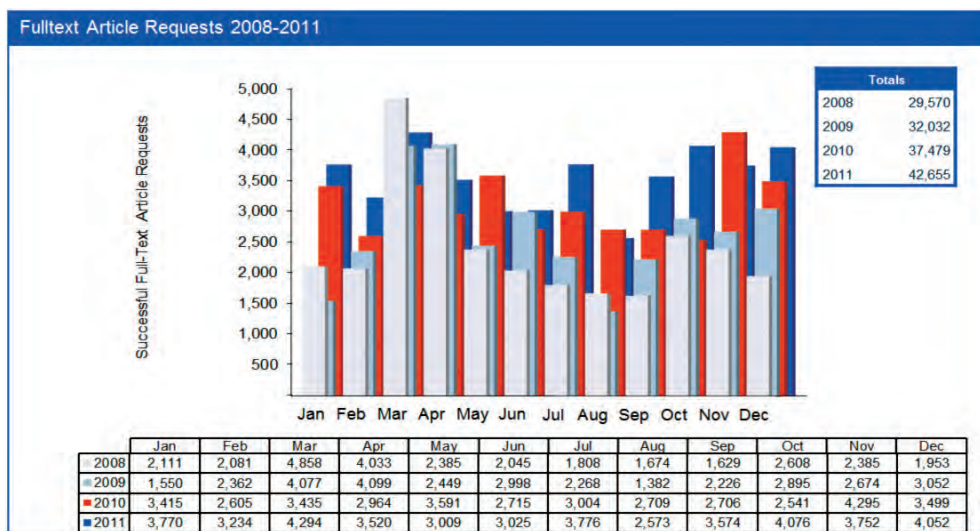


Fig. 2 Number of downloaded papers in 2008-2011

An index of the contribution of Landslides for information dissemination is the number of downloaded papers. It is shown in Fig.2. The number of Landslides papers downloaded electronically from Springer WEB papers has steadily increased from 29,570 in 2008, to 42,665 in 2011.

## Edition of Landslides

The increase in the number of papers submitted and in the number of published pages will create a greater editing load. It is difficult to find an editor and reviewers suitable for every paper, as the editing and review of papers is by ICL members and cooperating members from around the world who volunteer to carry out editing for the journal, and must find the time in their busy schedule. Submitted papers are matched to suitable editors and reviewers, based on the classification of the submitted papers and the personal classification of editors and reviewers. The classification outlined in *Landslides* Vol.1, No.1 has not always been suitable for this matching

Table 2 Old and New Classifications of submitted papers and personal classification of editors/reviewers

Old Classification (2003 to May 2012)	New Classification (from June 2012)
<b>10: Fundamental Research</b>	<b>10: Background Science</b>
<b>20: Mechanics and Dynamics</b>	010: Geology
<b>30: Monitoring and Remote Sensing and Ground Exploration</b>	020: Geomorphology
<b>40: Hazard Mapping, Vulnerability and Risk Assessment</b>	030: Geotechnology
<b>50: Cultural Heritage Sites and Locations of High Societal Values</b>	040: Geophysics
<b>60: Earthquake-triggered- Landslides and Catastrophic Landslides</b>	050: Hydrology & Meteorology
<b>70: Debris Flows, Submarine Landslides and Pyroclastic Flows</b>	<b>20: Methodology</b>
<b>80: Mitigation, Preparedness and Recovery</b>	010: Field investigation and ground exploration
<b>90: Capacity Building and Database</b>	020: Monitoring
<b>100: Case Studies and Others</b> (4-5 sub items in this classification are abbreviated)	030: Material testing
	040: Physical modeling
	050: Numerical simulation
	060: GIS
	070: Remote sensing
	080: Planning and design
	<b>30: Application</b>
	010: Hazard and Risk mapping
	020: Early Warning
	030: Risk Assessment
	040: Remedial measures & prevention works
	050: Risk reduction strategy
	060: Database
	070: Capacity development
	<b>40:Types of landslide</b>
	010: Debris flows
	020: Rock falls
	030: Earthquake induced landslides
	040: Rain induced landslides
	050: Landslides in cultural/natural heritage sites
	060: Anthropogenic landslides
	070: Landslides in urban areas

process. We have therefore reduced the number of categories from 10 to 4. The old and new classifications are shown in Table 2. To facilitate identifying suitable editors and reviewers, minor classifications are neglected. Special consideration, however, is needed for papers that do not match any category in the classification. However, most papers may be categorized on the basis of the background science, the methodology, the application, and the type of landslides (see Table 2).

### **Request to editors and reviewers**

The classification of submitted papers was changed from June 2012. At the same time, the personal classification of editors and reviewers must be updated. We wish to minimize the transition period as much as possible for a smooth shift to the new classification. Every author can register as a reviewer in the WEB editing system of Editorial Manager of Springer.

<http://www.editorialmanager.com/lasl/>.

An editor will search for reviewers suitable for a submitted paper in the Editorial Manager, and reviewers will be assigned. Reviewers with substantial reviewing experience are requested to work as editors. Landslides involves multidisciplinary science and submitted papers cover diverse backgrounds. Without cooperation from landslide researchers as editors and reviewers, Landslides cannot succeed in the second decade of development as a bimonthly journal, beginning in 2013. ICL requests that more landslide researchers volunteer to serve as editors and reviewers of Landslides.

### **Reference**

Sassa K, Tsuchiya S, Ugai K, Wakai A, Uchimura T (2009) Landslides: a review of achievement in the first 5 years (2004-2009)

Mikos M (2011) Landslides: A state-of-the art on the current position in the landslide research community. *Landslide* 8: 541-551.

### 3. Awards and Honours of ICL

#### 1. Varnes Medal

The Varnes Medal is the highest award provided by the International Consortium on Landslides; it recognizes professional excellence in landslide research. Nominees for the Varnes Medal must meet at least two of the following criteria:

- Professional excellence in landslide research
- Significant contribution to public education regarding landslide hazards
- International recognition for a professional career involving landslides
- Influential landslide research or development of methods or techniques
- Teacher of students who work on landslide issues



Fig.1 Photo of the Varnes Medal awarded to John Hutchinson in 2004  
Varnes medal is made of pure silver commemorating David Varnes  
(US. Geological Survey).

The past recipients of Varnes Medal are:

- Robert Schuster (US Geological Survey, USA) , 2<sup>nd</sup> Session of BOR/ICL at Simon Fraser University, Vancouver, Canada in October 2003
- John Hutchinson (Imperial College, UK), 3<sup>rd</sup> Session of BOR/ICL at Druzba Hotel, Bratislava, Slovakia in October 2004
- Masami Fukuoka (University of Tokyo, Japan), 4<sup>th</sup> Session of BOR/ICL at Keck Center of the National Academy of Science, Washington D.C., USA
- Norbert R. Morgenstern (University of Alberta, Canada), 5<sup>th</sup> Session of BOR/ICL at Bonvin Building, UNESCO Headquarters in Paris, France in November 2007
- Edward Derybyshire (University of Leicester, UK), 6<sup>th</sup> Session of BOR/ICL at Bonvin Building, UNESCO Headquarters in Paris, France in November 2007

- David Cruden (University of Alberta, Canada), 7<sup>th</sup> Session of BOR/ICL at the United Nations University, Tokyo, Japan in November 2008
- Zaiguan Lin (Leader of China-Japan Joint research on Landslide hazard assessment at Cultural heritage sites in Xi'an. It developed to IGCP-425 "Landslide Hazard Assessment and Cultural Heritage" which was further develop to ICL and IPL), 9<sup>th</sup> Session of BOR/ICL at Bonvin Building, UNESCO Headquarters, Paris, France in November 2010 (awarded at ICL-CGS Seminar on Geo-hazards, Xi'an, China in February 2011 below)



## 2. Best Paper Award

This award is given annually for the best paper published in *Landslides: Journal of International Consortium on Landslides* for the year beginning with the calendar year 2004 (Vol. 1).

Method of selection:

- (1) Judging for the award is by members of the Best Paper Award Subcommittee.
- (2) Ranking of papers by Subcommittee members is based on a numerical grading system:
 

● Scientific and technical quality	50%
● Impact on the profession and society	30%
● Quality of figures and tables	20%
- (3) Based on the above rating system, subcommittee members each rank the top five papers for the year with the member's choice for the best paper being number 1, the second best paper being number 2, etc. These lists are submitted to the Chairman of the Subcommittee.
- (4) The Chairman applies numerical scores to each short list as follows: number 1 receive 5 points; number 2 receives 4 points, number 3 receives 3 points, etc.
- (5) The Chairman totals the points for all of the short lists. The paper with the highest total receives the Best Paper Award.
- (6) In case of a tie, the Chairman calls for a "tiebreaker" vote.
- (7) A Subcommittee member is not allowed to recommend a paper for which he/she is the author or coauthor.



Past recipients of the Best Paper Award are:

Claudio Margottini (2004) Instability and geotechnical problems of the Buddha niches and surrounding cliff in Bamiyan Valley, central Afghanistan. Vol.1, No.1 :41-51

Rex L. Baum, Jeffery A. Coe, Jonathan W. Godt, Edwin L. Harp, Mark E. Reid, William Z. Savage, William H. Schulz, Dianne L. Brien Alan F. Chleborad, Jonathan P. McKenna and John A. Michael, (2005) Regional landslide-hazard assessment for Seattle, Washington, USA. Vol.2, No.4:266-279

Farrokh Nadim, Oddvar Kjekstad, Pascal Peduzzi, Christian Herold, and Christian Jaedicke (2006) Global landslide and avalanche hotspots. Vol. 3, No. 2:159-173

Didier Leynaud, Nabil Sultan, and Jürgen Mienert (2007) The role of sedimentation rate and permeability in the slope stability of the formerly glaciated Norwegian continental margin: the Storegga slide model. Vol.4, No. 4:297-309

Adam B. Prochaska, Paul M. Santi, Jerry D. Higgins, and Susan H. Cannon (2008) A study of methods to estimate debris flow velocity. Vol.5, No.4:413-444

K. Lundström, R. Larsson, T. Dahlin (2009) Mapping of quick clay formations using geotechnical and geophysical methods. Vol.6, No.1:1-15

Christopher I. Massey, Vernon Manville, Graham H. Hancox, Harry J. Keys, Colin Lawrence, Mauri McSaveney (2010) Out-burst flood (lahar) triggered by retrogressive landsliding, 18 March 2007 at Mt Ruapehu, New Zealand—a successful early warning. Vol.7, No. 3: 303-315.



The 2007 Best paper award on Stregga submarine landslide was passed to Odver Kjekstad on behalf of Leynoud et al. in Norway at the First World Wandslide Forum at UNU, Tokyo, Japan.

### 3. IPL Award for Success

The IPL Award for Success is given at each World Landslide Forum for up-to-three successful projects implemented within IPL based on an evaluation of the previous 3 years' activities. The achievement of an IPL project is much affected by the finances and the infrastructure of the developed or developing country. The aim of the IPL Award for Success is not to select the **best** IPL project, but to select the **most successful** IPL projects relative to each group' s circumstances.

- The winner(s) are awarded 3000 USD and a Certificate.
- Judging for the award is by members of the IPL Awards committee.
- The IPL Awards Committee consists of a Chairperson, 2 members and a secretary
- Evaluation of projects is based on a range of different agreed criteria depending on the type of project.

The Chair of the evaluation committee of the IPL Awards for Success (Chair: Badaoui Rouhban, Director, Section of Disaster Reduction of UNESCO) recommended the following three projects at the 6<sup>th</sup> Session of the IPL Global Promotion Committee held at FAO Headquarters, Rome, Italy in October 2011. The awards were bestowed to those leaders at the Second World Landslide Forum. (See 3. IPL Projects)

- (1) Lynn Highland: U.S. Geological Survey, and Peter Bobrowsky: Geological Survey of Canada (Publication)  
IPL 106 Best Practice handbook for landslide hazard mitigation (2002-2007)
- (2) Farrokh Nadim and Bjørn Kalsnes: International Centre for Geohazards, Norway (Research)  
IPL 102 Assessment of global high-risk landslide disaster hotspots (2002-2004)  
IPL 144 Changing pattern of landslide risk and strategies for its management (2009-present)
- (3) Dwikorita Karnawati and Faisal Fathani: Universitas Gadjah Mada, Indonesia (Capacity Building)  
IPL 158 Development of Community-based Landslide Early Warning System (2009-present)  
IPL 159 Development of Education Program for Sustainable Development in Landslide Vulnerable Area through Student Community Service (2009-present)

#### 4. Special Award for Appreciation

The past recipients of Special awards for appreciation are:

Wolfgang Eder (Director, Division of Earth Sciences of UNESCO) honored for his outstanding contribution to the establishment of ICL, at 4<sup>th</sup> Session of BOR/ICL in Washington D.C., USA.

Badaoui Rouhban (Director, Section for Disaster Reduction at UNESCO) honored for his outstanding contribution to ICL and IPL activities since ICL foundation 2002, at ICL 10<sup>th</sup> Anniversary Conference, Kyoto, Japan in January 2012

Salvano Briceno honored for his outstanding contribution to ICL and IPL activities for 2002-2011 as the Director of UNISDR, at ICL 10<sup>th</sup> Anniversary Conference, Kyoto, Japan in January 2012



Special Awards for Appreciation were bestowed to Salvano Briceno (left) and Badaoui Rouhban (right) at the ICL 10<sup>th</sup> Anniversary Conference in Kyoto, Japan on 18 January 2012.

#### 5. ICL Conference Award

Claudio Margottini was honored for his Chairmanship of the successful Second World Landslide Forum in Rome, Italy on 3-9 October 2011.

## 4. Officers, Organs of ICL and IPL

### 1. Officers and Organs of ICL

**President:** Paolo Canuti (Professor Emeritus, University of Firenze, Italy)

**Vice Presidents:** Kaoru Takara (Disaster Prevention Research Institute, Kyoto University, Japan)  
Yueping Yin (China Institute of Geo-environmental Monitoring, China Geological Survey)  
Claudio Margottini (National Institute for the Protection and Environmental Research (ISPRA), Italy)  
Irasema Alcantara-Ayala (Institute of Geography, National Autonomous University of Mexico, Mexico)

**Executive Director:** Kyoji Sassa (ICL, Prof. Emeritus, Kyoto University, Japan)

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

**Committee Chairs:** Chair of the Award Committee: Peter Lyttle (U.S. Geological Survey, USA)  
Chair of the best paper subcommittee: Luciano Picarelli (Seconda Univ. di Napoli, Italy)  
Chair of ICL Network Committee: Snjezana Mihalic (Zagreb University, Croatia)  
Chairs and Deputies of thematic and regional networks (See A-4)

**Advisors:** Senior Adviser: Salvano Briceno (ICL, Venezuela/France)  
Technical Advisor: Wolfgang Eder (ICL, Germany)  
Language Advisor: Mauri McSaveney (GNS Science, New Zealand)

**BOR:** All matters of ICL will be decided by the Board of Representatives (BOR). A representative nominated from each member of ICL has one voting right in BOR.

**Steering Committee:** The committee will prepare agenda, work plan, budget and others to BOR for consideration.

**Secretariat:** The secretariat is responsible for the day-to-day operation of ICL, and prepare draft reports, draft work plan to the Steering Committee.

**Office:** Association for Disaster Prevention Research, 138-1 Tanaka Asukai-cho, Sakyo-ku, Kyoto 606-8226, Japan. E-mail: secretariat@iclhq.org

### 2. Officers and Organs of IPL

**Chair of IPL Global Promotion Committee (IPL-GPC):** Salvano Briceno (Chair, ICSU/IRDR Science Committee, Former Director of UNISDR)

**Deputy Chairs:** Badaoui Rouhban, Paolo Canuti and Kyoji Sassa

Chair of Independent Panel of Experts for World Centres of Excellence: Han van Ginkel (Former Rector of the United Nations University)

Chair of Committee for IPL Award for Success: Badaoui Rouhban (Director, Section for Disaster Reduction at UNESCO)

Chair of IPL Project Evaluation Committee: Matjaz Mikos (University of Ljubljana, Faculty of Civil and Geodetic Engineering, Slovenia)

**IPL-GPC:** All matters of IPL will be decided by IPL-GPC. All representatives of ICL members, UNESCO, WMO, FAO, UNISDR, UNU, ICSU, WFE0 which have exchanged Moue to promote IPL, JUGS and other financially supporting organizations will have one voting right.

**Secretariat:** IPL is hosted by ICL Secretariat.

**Office:** UNITWIN Headquarters Building, Kyoto University Uji Campus, Uji, Kyoto 611-0011, Japan

E-mail: icl-network@iclhq.org

## 5. Membership Registration of ICL

The International Consortium on Landslides (ICL) is an International non-governmental and non-profit scientific organization by worldwide universities, institutes, government organizations, academic societies and other entities. The consortium aims to promote landslide research for the benefit of society and the environment, and capacity building, including education, notably in developing countries. The ICL, UNESCO, WMO, FAO, UNISDR, UNU, ICSU, WFEO have jointly established the International Programme on Landslides (IPL) by the Tokyo Action Plan. The IPL is managed by the IPL Global Promotion Committee.

**ICL Members** are those organizations that support the objectives of ICL **intellectually, practically and financially**.

Membership is for a minimum period of two years. Members will come from one of four categories:

- a ) Intergovernmental organizations
- b ) Non-governmental organizations
- c ) Governmental organizations and public organizations
- d ) Other organizations and entities

ICL member is not always necessary to be an existing legal body. It can be a combined organization from different universities, faculties, or groups.

**Financial dues** of ICL members are US\$ 5,000/year. The amount is reduced to \$3,000, \$2,000, \$1,000, or \$500 based on four income classes of the Gross National Income per Capita (World Bank), 1) High income (\$12,276 or more), 2) upper middle income (\$3,976-\$12,275), 3) lower middle income (\$1,006 to \$3,975), 4) low income \$1,005 or less) in the statistic for 2010. Universities, academic societies, other less funded institutions are reduced.

### **Major expenses of ICL:**

Most important activity of ICL and IPL is the annual organization of BOR and IPL-GPC. The report and plan of ICL and IPL activities, budget and strategic planning by representatives from ICL members are cores of ICL and IPL. Travel supports up to \$ 1,500 will be allocated to representatives from developing countries.

The edition and publication of "Landslides: Journal of the International Consortium on Landslides" is the core activities of ICL and IPL. ICL is the owner of this Journal and initially purchased 1,000 copies of Journal to launch the world first full color scientific journal. The number of purchase is gradually decreasing.

ICL is an independent non-profit making organization and it maintains the management office in the Association for Disaster Prevention Research in Kyoto, Japan.

### **Financial resources of ICL:**

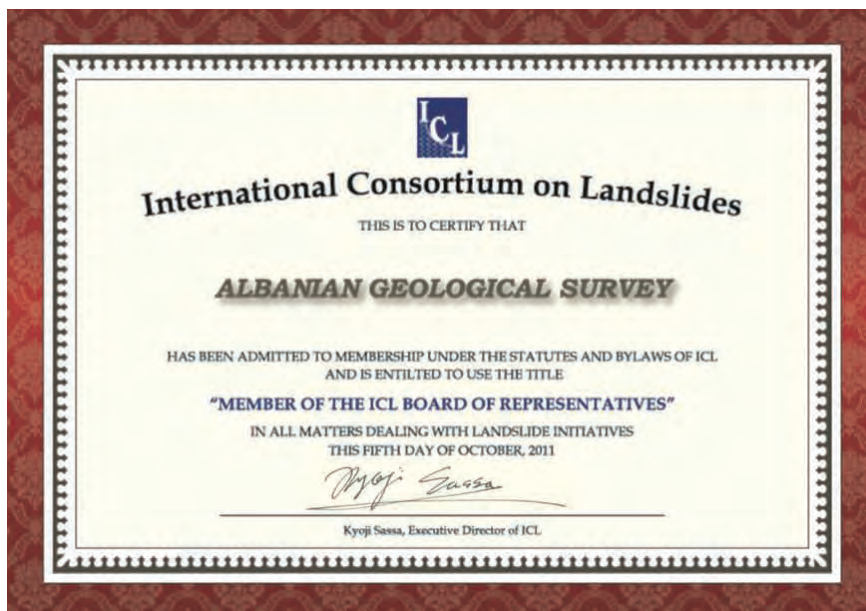
ICL will apply and receive competitive project funds for specific activities occasionally. The membership due from ICL members constitutes the sound financial base of ICL and IPL. Especially financial contribution from developed countries is very much appreciated. All representatives of ICL members from developed countries are requested to cooperate with Landslides and credited in the Editorial Board of each issue of Landslides.

### Members of full membership due from developed countries:

International Centre for Geohazards, (ICG) in Oslo, Norway (Farrokh Nadim)  
Joint Research Centre (JRC), European Commission, Italy (Javier Hervás)  
Korea Institute of Geoscience and Mineral Resources (KIGAM), Korea (Byung-Gon Chae)  
University of Firenze, Earth Sciences Department, Italy (Nicola Casagli)  
University of Ljubljana, Faculty of Civil and Geodetic Engineering (ULFGG), Slovenia (Matjaz Mikos)

### Other members from developed countries:

Geological Survey of Canada, Canada (Rejean Couture)  
Charles University, Faculty of Science, Czech Republic (Vit Vilimek)  
Technische Universität Darmstadt, Institute and Laboratory of Geotechnics, Germany (Rolf Katzenbach)  
ISPRA-Italian Institute for Environmental Protection and Research, Italy (Claudio Margottini)  
University of Roma "La Sapienza", Italy (Gabriele.Scarascia-Mugnozza)  
Forestry and Forest Product Research Institute (FFPRI), Japan (Kazuo Suzuki)  
Japan Landslide Society, Japan (Daisuke Higaki)  
Kyoto University, Disaster Prevention Research Institute (DPRI), Japan (Kaoru Takara)  
Niigata University, Research Institute for Natural Hazards and Disaster Recovery, Japan (Hideaki Marui)  
University of Tokyo, Inst. of Industrial Science and Geotechnical Group, Japan (Kazuo Konagai)  
Korean Society of Forest Engineering, Korea (Hoseop Ma)  
Geological Survey of Slovenia, Slovenia (Marko Komac)  
National Taiwan University, Department of Civil Engineering, Chinese Taipei (Liang-Jeng Leu)



### A Certificate of ICL member:

Red and blue is symbol colors of Landslides: Journal of International Consortium on Landslides. These two colors were inherited from International Newsletter "Landslide News" in 1987-2003, which was published by the Japan Landslide Society. The newsletter was printed in red, blue and black color and 2000 copies were distributed abroad free of charge for 15 years.

### Acknowledgement:

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ICL exchanged MoUs with UNESCO and other 6 global stakeholders to promote the 2006 Tokyo Action Plan within 2006

## Secretariat of the International Consortium on Landslides

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Association for Disaster Prevention Research  
138-1 Tanaka-Asukai cho, Sakyo-ku,  
Kyoto 606-8226, Japan  
Tel:+81 (75) 723 0640, Fax:+81(75) 950 0910  
e-mail: secretariat@iclhq.org (for ICL)  
URL (ICL): <http://icl.iplhq.org/>

UNITWIN Headquarters Building  
Kyoto University Uji Campus  
Uji, Kyoto 611-0011, Japan  
Tel: +81( 774 ) 38 4834, Fax: +81 (774) 38 4019  
e-mail : icl-network@iclhq.org (for IPL)  
URL (IPL): <http://www.iplhq.org/>