

Experiences of academic networks in Asia and the Pacific: UNESCO-IHP, APHW, AOGS, AUN/SEED-Net, UNITWIN, etc.

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Secretary-General, APHW

ASEAN Workshop on ASEAN Academic Networking in Water & Disaster Management and
Climate Change among ASEAN countries, Bangkok, Thailand, 28-29 January 2015

Supported by



Some regional networks relating water and disaster issues

Network	Since	Members	Official meeting	Note
UNESCO-IHP RSC-SEAP	1993-	National Committees	Every year + Symposium	National government
APHW	2002-	Individuals	Conf. Every 2-3 years	Free of charge
AOGS	2003-	Individuals	Every year	Membership fee
AUN/SEED-Net	2001-	Institutions/Universities (Engg. Schools)	STC meetings; Regional meetings for specific areas	JICA support for ASEAN
UNITWIN UNESCO-ICL-KU	2003-	UNESCO, member organizations and Kyoto Univ.	Board of Representatives (BoR)	UNESCO system

APHW



Free of charge

<http://rwes.dpri.kyoto-u.ac.jp/~tanaka/APHW/APHW.html>

Related Journal : Hydrological Research Letters

<http://www.hrljournal.org>

APHW2015 International Conference will be held in Singapore in conjunction with AOGS2015 meeting.

Call for abstracts: submit through AOGS MARS system (in HS Section)

<http://www.asiaoceania.org/aogs2015/public.asp?page=home.htm>

What Characterizes each of Factors for Hydrological Features in River Basins in East, Southeast and South Asian Region (or Asia-Pacific)?

**Climatic Factor ; Warm Humid Climates → Monsoon Climates
(Temperate Humid + Humid Tropics)**

Geomorphological Factor ; Tectonic zones

**Human Intervention to the Natural Environment ; Paddy Cultivation,
Irrigation and Drainage, Flood Control Measures, etc.**

Proposal of a New Hydrological Region : “Warm-humid Tectonic Zone”

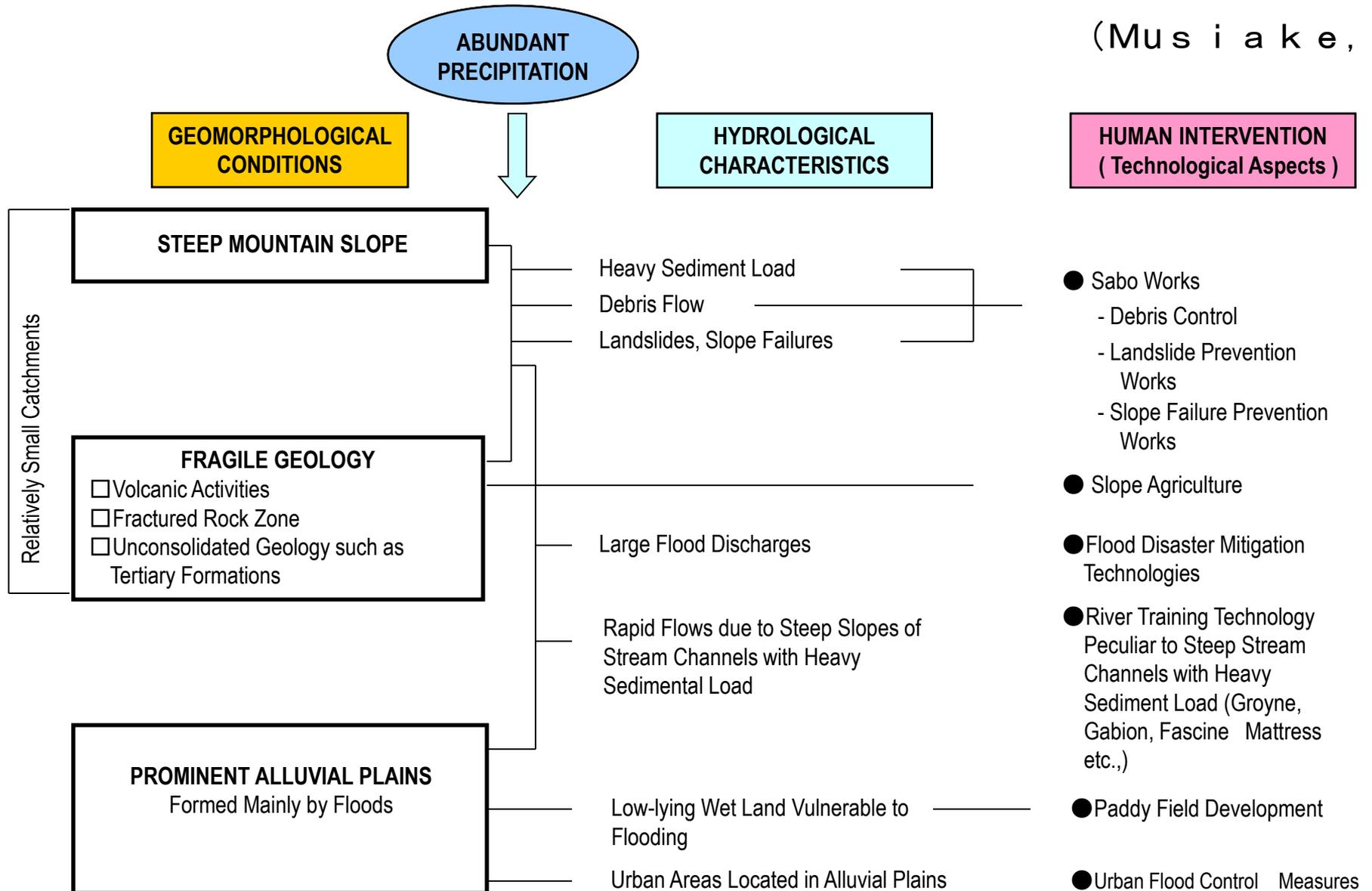
- Based on the above discussions, by combining geomorphological and climatic factors, “**warm-humid tectonic zones**” is proposed as a new **macroscopic hydrological region**.
- The **warm-humid tectonic zone** covers wide parts of Asia, island countries in the Pacific Ocean and the south-eastern fringe of Asian continent.
- Similarly, we will be able to define “**warm-semi-humid tectonic zone**”, “**warm-semi-arid/arid tectonic zone**” and so on, taking “**tectonic zone**” as a **primary geomorphological factor**. (The definition of those hydrological classification should be discussed in the future)

Human intervention to the Natural Environment in monsoon Asia (Musiake, 2003)

- In monsoon Asia, there are a variety of human activities under geomorphological conditions of **tectonic zone** and climatic conditions of **Asian monsoon** which cover from humid to arid climates.
- However, we will focus on **warm-humid tectonic zone** here in the discussion, to clarify “**too much water**” **issues in monsoon Asia**.
- We can observe many types of **human activities particular to the warm-humid tectonic zone**, such as paddy cultivation, slope agriculture, location of urban areas in alluvial flood-plains, protection of alluvial plain from inundation, etc..

Hydrological/Water Resources Characteristics Common in Warm-Humid Tectonic Zone

(Mus i a k e ,





AUN/SEED-Net



AUN: ASEAN University Network

SEED-Net:

aiming at promoting human resources development in engineering in ASEAN.
26 leading Member Institutions (selected by the Ministries in charge of higher education of respective countries) from 10 ASEAN countries with the support of 14 leading Japanese Supporting Universities (selected by Japanese Government).



Scholarships and Support Programs

- Sandwich program
- Scholarship for Graduate Schools

Regional Conferences

e.g.,

- ASEAN Environmental Engineering Conference
- Regional Conference on Natural Disaster



UNESCO's Intergovernmental Scientific Cooperative Programme in Hydrology and Water Resources since 1975

The **International Hydrological Programme (IHP)** is the only intergovernmental programme of the UN system devoted to water research, water resources management, and education and capacity building.

IHP structure

- Intergovernmental Council (36 members)
- Regional steering Committee for Southeast Asia and the Pacific (RSC-SEAP)
- National Committees for IHP under the National Commission for UNESCO

Basically, intergovernmental organization and activities

Japanese IHP NatCom members

	Name	Position
Chair *	TAKARA Kaoru	Prof., DPRI, Kyoto Univ.
*	UEMATSU Mitsuo	Director and Prof., CICAORI, Univ. of Tokyo.
*	KURODA Reiko	Prof. Tokyo Univ. of Science
	HARUYAMA Shigeko	Prof., Mie Univ.
	HORI Tomoharu	Prof., WRRC, DPRI, Kyoto Univ.
	ISHIZAKA Joji	Prof., HyARC, Nagoya Univ.
	KAWAMURA Akira	Prof., Tokyo Metropolitan Univ.
	KAZAMA Futaba	Prof., Univ. of Yamanashi
	NAKAYAMA Mikiyasu	Prof., Univ. of Tokyo
	OKI Taikan	Prof., IIS, Univ. of Tokyo
	SUZUKI Atsushi	Vice Director, ICHARM, PWRI
	TACHIKAWA Yasuto	Prof., Kyoto Univ.
	TANIGUCHI Makoto	Prof., RIHN
	TSUJIMURA Maki	Prof., Univ. of Tsukuba
	WATANABE Tsugihiko	Prof., Kyoto Univ.

Secretariat of the Japanese National Committee for IHP, UNESCO

c/o Mr. NODA Takao

Japanese National Commission for UNESCO,
Ministry of Education, Culture, Sports, Science and
Technology (MEXT)

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<http://hywr.kuciv.kyoto-u.ac.jp/ihp/japan/>

IHP Training Courses

- 23rd IHP Training Course by Kyoto University

“Ecohydrology for River Basin Management under Climate Change”: 2-13 December 2013

- 24th IHP Training Course by Nagoya University

“Forest Hydrology-Conservation of Forest, Soil, and Water Resources”: 24 November – 7 December 2014

- 25th IHP Training Course by Kyoto University

Flood-Related Issues (tentative), December 2015

Forthcoming meetings

- THA2015+ ASEAN Workshop: Bangkok, 28-30 Jan 2015
- 7th World Water Forum: Daegu, Rep. Korea, 12-17 April 2015
- IWRA XVth World Water Congress: Edinburg, Scotland, 25-29 May 2015
- 26th IUGG General Assembly : Prague, Czech Republic, 22 June – 7 July 2015
- The 23rd IHP RSC meeting at Myanmar, 19-23 October 2015 (tentative)

UNESCO INTERNATIONAL HYDROLOGICAL PROGRAMME EIGHT PHASE (2014-2021)

UNESCO-IHP-VIII: “WATER SECURITY Responses to Local, Regional, and Global Challenges”



UNESCO-IHP in the Asia Pacific Region

- 17 IHP National Committees
- 6 UNESCO Water Centres
- 6 UNESCO Water Chairs in the Asia Pacific Region.
- Regional Steering Committee for Southeast Asia and the Pacific



SECRETARIAT REPORT

UNESCO Science Bureau for Asia and the Pacific

(October 2013-November 2014)

22nd RSC meeting
13-14th November 2014
Yogyakarta



United Nations
Educational, Scientific and
Cultural Organization



Japan
Funds-in-Trust



Key Activities of IHP in Asia and the Pacific Region from October 2013

Recent IHP major events in the region

23rd IHP Training Course on Ecohydrology under Climate Change held on 2-13 December 2013, Kyoto, Japan

UNESCO Office Jakarta, Japan Trust-in-Fund, in collaboration with the Water Resources Research Center, Disaster Prevention Research Institute of Kyoto University organized the 23rd IHP training course on Ecohydrology under Climate Change.

[The 23rd IHP training course text book](#) can be downloaded.

MasterClass on “Network-enabled Collaboration on Water Related Disasters and Water Security” held on 23 January 2014 in Bandung

UNESCO Office Jakarta in collaboration with Asia Pacific Advanced Network (APAN) and Bandung Institute of Technology (ITB) organized a MasterClass on “Network-enabled Collaboration on Water Related Disasters and Water Security” on 23 January 2014, held in conjunction with the 37th APAN Meeting in Savoy Homann Bidakara Hotel in Bandung, Indonesia.

Recent IHP major events in the region



The PERI-URBAN 2014 International Conference: organized in partnership with the University of Western Sydney under the topic 'Peri-Urban Landscapes; Water, Food and Environmental Security' from 8 -10 July 2014.



The Sustainable Landscape Futures International Conference took place at the University of Canberra, Australia on the theme '**Sustainable Landscape Futures: Solving complex problems through sustainability science**' on 10 - 11 July 2014.

These two events were concluded by the Sydney Declaration titled "Expanding Cities Sustainably" of July 10, 2014 and the Canberra Statement which concluded that "sustainability is a 'way of living' that requires a holistic approach", and have highlighted the key role of IHP in these processes.

Recent IHP major events in the region



The 17th International River Symposium was held in Canberra, Australia in the Murray-Darling Basin (a UNESCO-IHP HELP river basin), from 15-18 September 2014, on overarching theme of 'Large River Basins'. The conference and some specialist workshops have built together a statement on integrated river basin management to forge a stronger global agenda for coordinated action.



Workshop on IWRM for Peace and Development in Davao City, Philippines on 22-23 October 2014.

The two days workshop discussed the issues related to IWRM activities in Davao City and ended with a draft paper on IWRM proposal for the region of Mindanao and city of Davao.

Current IHP major activities in the region



Working with the Government of Medan City, Indonesia on “Securing Medan Water Futures 2030”

- Signed Memorandum of Understanding (MoU) between the Government of Medan City and UNESCO in “Supporting Study on Urban Water management in Medan City”.
- Preparation of a Policy Brief on "Securing Medan Water Futures 2030" with the aim of supporting the design and implementation of the sustainable water management strategies and policies that will help to meet present and future water demands of Medan.

Pakistan Flood Project Delivered



Project Strategic Strengthening of Flood Warning and Management Capacity of Pakistan delivered and external evaluation completed (July 2011- December 2014).

UNESCO in close collaboration with the Japan International Cooperation Agency (JICA) and in coordination with the Government of Pakistan implemented this project.

IHP Pakistan, ICHARM, JAXA, PMD and SUPARCO collaborated as project partners.

Water Portal now ready for use by UNESCO partners

The image shows a screenshot of a website banner. At the top left is the UNESCO logo, which includes a classical building icon and the text "United Nations Educational, Scientific and Cultural Organization". To the right of the logo is the text "WATER SCIENCES" in a large, bold, black font. Below this, there is a horizontal navigation menu with the following items: "About", "Water Sciences Unit »", "Water Family »", "Discussion Forum »", and "Knowledge Sharing »". The main banner area has a dark orange background with the text "Online Live Lecture on World Water Day 2014: Interdependence of Energy Production and Water Management" in white. Below this is a teal banner with a circular pattern of lines. On the left side of the teal banner is a "UN WATER WORLD WATER DAY 2014" logo. On the right side, the text "Online Live Lectures on World Water Day 2014: Interdependence of Energy Production and Water Management" is displayed in white, followed by "21 March 2014 | Atma Jaya University, Jakarta". There are also navigation arrows on the left and right sides of the teal banner.

United Nations
Educational, Scientific and
Cultural Organization

WATER SCIENCES

About Water Sciences Unit » Water Family » Discussion Forum » Knowledge Sharing »

Online Live Lecture on World Water Day 2014:
Interdependence of Energy Production and Water Management

UN WATER
WORLD WATER DAY
2014

Online Live Lectures on World Water Day 2014:
Interdependence of Energy Production
and Water Management
21 March 2014 | Atma Jaya University, Jakarta

science.asia/#

<http://water.jfit-for-science.asia/>

IHP major events in Asia and the Pacific

IHP events in Jogjakarta, Indonesia November 8-14 November 2014



Ecohydrology Training Course on the topic "Ecohydrology: A Tool for IWRM Implementation at the River Basin Level" .

From 7-8 November 2014.

International Conference on Ecohydrology (ICE 2014) on the theme "Ecohydrology Approaches Facing the Global water Environment Challenges" will be organized from 10-14 November 2014, to synthesize information and knowledge gaps for addressing issues related to critical water environment systems; how the ecohydrology and ecotechnology could provide low cost environmentally sound technology for sustainable water management, especially in the Asia Pacific region.

Yogyakarta Sustainable Water Actions Statement was developed and delivered.



The 22nd Meeting of IHP Regional Steering Committee for Southeast Asia (IHP-RSC SEAP) held from 13 to 14 November 2014.

Forthcoming research activities in Asia and the Pacific

IWRM, Ecohydrology and Sustainability Science projects:

- “Establishment of Sustainability Science Demonstration Pilot Project on Restoring and Managing Langat River, Malaysia for Future”
- "Customizing IWRM Guidelines in existing and expecting HELP River Basins in Asia-Pacific region”
- “Establishment of Sustainability Science Demonstration Pilot Project on Rice Terraces of the Philippines Cordilleras”
- “Establishment of Sustainability Science Demonstration Pilot Project on Restoring and Enhancing Angkor World Heritage Site and Siem Reap City Water Systems”
- “Customizing IWRM Guidelines in existing and expecting Ecohydrology demonstration sites in Asia-Pacific region”

IHP major events in Asia and the Pacific

24th IHP Training Course on Forest Hydrology - Conservation of Forest, Soil and Water Resources to be held on 24 November to 7 December 2014, Nagoya, Japan

UNESCO Office Jakarta, in collaboration with the School of Internet Asia and CONNECT-Asia, provided e-learning opportunities by broadcasting the whole training courses in numerous video conference spots in the region.

ASEAN Water Footprint Course

Tentatively schedule – mid February 2015, DID Training Centre, Kuala Lumpur

In collaboration with UNESCO-IHP National Committee of Malaysia, this course will help to expand the understanding of water footprint concept to a bigger number of water managers in ASEAN countries.

Upcoming IHP major events in Asia and the Pacific

Sustainability Science from theory to action

Tentatively schedule – mid (9-10) March 2015, Kuala Lumpur in cooperation with UKM

In collaboration with UNESCO IHP National Committee of Malaysia, this course will help to expand the sustainability science concept and implementation of pilot projects.

7th World Water Forum, 12-17 April 2015, Daegu. Korea

UNESCO Office Jakarta will lead :

- Theme 3.4 Smart Implementation of IWRM
- Ecosystem Services under Main Focus Area 5 of Science and Technology Process
- Urban Water Management under the Asia Pacific Regional Process
- ++ please update during the agenda item 12.

Conclusions

- There are many existing academic networks in the region.
- ASEAN academic network should concentrate issues urgent for the region.
- Possible links are:
 - UNESCO-IHP for governmental activities
 - APHW for individuals (water in general)
 - AOGS for individuals dealing with geoscience (hydrology)
 - AUN/SEED-Net for engineering schools
 - ICL for landslide-related issues
 - Asian Science Council

Hope further development in ASEAN Workshop and beyond!

1st Phase

An international consortium (ICL) was established during the UNESCO-Kyoto University Joint Symposium in 2002 with participants from UNESCO, UNISDR, WMO, MOFA & MEXT, Japan.

I : a cultural heritage at risk.

C : Motion of landslide and progress of ICL

L : Retaining wall for landslide disaster risk reduction measures



2014 ICLmember (59 organizations from 35 countries/regions)

1. Albania (1): Albania Geological Survey	19. Malaysia (2): Public Works Depart, Mara Univ.
2. Bosnia and Herzegovina (1): The Geotechnical Society of Bosnia and Herzegovina	20. Mexico (1): Institute of Geography, UNAM
3. Brazil (1): Federal University of Parana	21. Nepal (1): ICIMOD
4. Canada (1): Geological Survey of Canada	22. Nigeria(1): University of Nigeria. Dept. of Geology
5. China (5): China Geological Survey, etc	23. Norway (1): Inter. Center for Geohazards, NGI
6. Columbia (1): Univ. Nacional de Columbia	24. Peru (1): Grudec Ayar (NPO, Cusco)
7. Croatia (2): Rijeka + Zagreb Univ., Zagreb City	25. Russia (3): Moscow State University, Hydro Proj. etc
8. Czech Republic (2): Charles University, IRSM	26. Serbia (1): University of Belgrade
9. European Commission (1):Joint Research Centre	27. Slovakia (1): Comenius University
10. Germany (1) :Technische Univ. Darmstadt	28. Slovenia (2): Univ. Ljubljana, Geological Survey
11. Georgia (1): National Environmental Agency	29. South Africa(1): Council for Geoscience
12. Honduras (1) : Univ. Politecnica de Ingenieria	30. Sri Lanka (2): Cent. Eng. Consul. Bur., NBRO
13. India (1): Natonal Inst. of Disaster Management	31. Chinese Taipei (1): National Taiwn University
14. Indonesia (1): Gadjah Mada University	32. Thailand (2): Ministry of Agri, Asian Disas. Prep. Cent.
15. Iran (3): Agri. Res. and Edu. Organization etc	33. Ukraine (1): Inst. Telecomm. & Global Infor. Space
16. Italy (3): University of Firenze, ISPRA, etc	34. Uzbekistan (1): Institute Hydroingeo
17. Japan (5): DPRI-KU, Japan Land. Soc. etc	35. Vietnam (1): Inst. Transport Science & Technology.
18. Korea (5): Korea Inst. (KIGAM, KFRI), etc	

ICL founded the full color Journal *Landslide* since 2004.
ICL published the full color books at each WLF since 2008

Landslides: Journal of International Consortium on Landslides.

6 issues/year, 200 pages/issue, Full color, 203 Impact factor: 2.814

WLF1 2008 : Landslide Disaster Risk Reduction. Vol.1, 649 pages

WLF2 2011 : Landslide Science and Practice. Vol.1-7, 3,600 pages

WLF3 2014 : Landslide Science for a Safer geoenvironment, Vol.1-3, 2,100 pages



Advisory members of the Journal Management Committee include heads of UNESCO, UNISDR, WMO, FAO, UNU, ICSU, WFEO, IUGS, Cabinet Office/MEXT/MLIT of JAPAN as well as ICL

Cover of WLF3 full color book with forewords from UNESCO and UNISDR



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 communication 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,

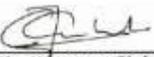
based on the existing structural framework of the ISDR and plan of action of the UN-WCDR, as well as other relevant networks and institutional and international expertise,

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:

 Mr. Koichiro Matsuura Director-General United Nations Educational, Scientific and Cultural Organization	 Mr. Michel Jarraud Secretary-General World Meteorological Organization	 Mr. Jacques Diouf Director-General Food and Agriculture Organization of the United Nations	 Mr. Sálvamo Briceño Director UN International Strategy for Disaster Risk Reduction
4 MAR 2005 Date	22. 3. 2005 Date	21.01.2005 Date	19.01.05 Date
 Mr. Hans van Ginkel Rector United Nations University	 Ms. Jane Lubchenco President International Council for Science	 Ms. Françoise Come Executive Director World Federation of Engineering Organizations	
19.01.05. Date	21.04.05 Date	24/21/2005 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>, E-mail: icml@landslide.dpri.kyoto-u.ac.jp, Tel: +81-774-38-4110, Fax: +81-774-32-5597

2nd Phase

UNESCO, WMO, FAO, UNISDR, UNU, ICSU and WFEO signed "Letter of Intent" by the Landslide Session in 2nd WCDR, Kobe, Japan in 2005



ICL exchanged MOU with each of UNESCO, WMO, FAO, UNISDR, UNU, ICSU and WFEO to promote 2006 Tokyo Action Plan on International Programme on Landslides (IPL) in 2006

Photos of Hiroshima landslide disasters



88 persons were killed or missed.



4th Phase 2017 4th WLF in Ljubljana, Slovenia
2020 5th WLF in Niigata, Japan (5 year after Sendai)

3rd Phase 2015 ICL-IPL Sendai Partnership Conference (11-15
March 2014 during 3rd WCDRR in Sendai, Japan
2014 Beijing Declaration for a Safer Geoenvironment
during 3rd WLF in Beijing, China

2nd Phase 2006 Tokyo Action Plan to establish IPL
2005 Letter of Intent agreed at the 2nd WCDR
in Kobe, Japan

1st Phase 2004 Foundation of the full color scientific journal
"Landslides"
2003 UNESCO-KU-ICL UNITWIN Cooperation
Programme on Landslides
2002 Kyoto Declaration "Establishment of
an International Consortium on Landslides"