COMMISSON REPORT IGU COMMISSION ON HAZARD AND RISK – C12.18

INTERNATIONAL GEOGRAPHICAL UNION 2012-2016

Commission Home page is as following two.
Until 2015 http://www.bio.mie-u.ac.jp/~haruyama/igu/
After April 2015 up to now http://igu.aikotoba.jp/IGU_report.html

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What is commission on hazard and risk 2012-2016?

IGU Commission on hazard and risk is including disaster science, disaster risk reduction and risk reduction governance missions in both human dimension and physical dimension. Human geographers discuss the governance for mitigation, historical disasters compared recent disasters, regional planning with disaster mitigation under the rapid land use and land cover change with urban sprawl and natural disaster evolution, the local community activities for strengthening of disaster resilience and social structure with disaster risk, risk communication and disaster resilience, and physical geographers discuss natural environment structure related with natural disaster in each subject and each location, such as, climatology, geomorphology, bio-geography, soil science and hydrology using remote sensing technology and GIS through observation, measuring, recording, and analyzing. The young geographer involvement is important mission for our commission. The future earth program is including disaster mitigation in sustainable development.

What is the Mission of CHR?

We have the following missions for the 2012-2016 Commission;

- To construct academic networks with related agencies working in geographical and engineering approaches for hazard and risk science. The Commission will promote further collective engagement in research projects with these organizations. The commission aim is to research and share information with each other, and publish mission result using geographical approached for hazard and risk for mitigation such as GIS technology with remote sensing and landscape studies.
- To work to involve young researchers in Geography. Given the discussion networking each region in the Commission, and considering north and south balance of disaster risks, we have close links to the several international disaster prevention associations and work with IRDR commission.
- IGU Commission on hazard and risk for 2012-2016 activities works with the IGU Task Force on the risk management theory to develop a sustainable organization to support this key endeavor for the future of the disaster discipline. We have found it useful to have the taskforce linked to the Commission through the former commission SC member Dr.Juergen Weichselgartner, Senior Science Coordinator of LOICZ and PEAMSE activities. The aim is to promote round tables for discussions on risk management and to contribute to social interchange,

 in particular
- To extend the work on the role of geography in for living with natural disaster. This process began with a contribution to the business meeting in German 2012, and proceeded with the registration of the statement on website, and the distribution of the statement to all national communities represented in the IGU. The Commission survey uptake of the concepts on sustainable development in curriculum materials, and promote the prompt ideas in working conferences and workshop of the Commission.
- To development of statistical approaches to evaluate regional risks from the knowledge of atmosphere-related and lithosphere-related hazards statistics linked with GIS and remote sensing technology.
- To collect the issue for desertification and to development of solution method against desertification. And to collect cold region issue because of important issue for mitigation of natural disaster under the climate change.

Role of CHR

The scientific and technical program of CHR is organized by 10 commission SC members and web master. Each SC is comprised of a number of Working Groups which are responsible for particular topics within the Commissions' areas of responsibility. The CHR session program includes a regional IGU conference and regional workshop held in the participant country organized by SC member. And we are supporting to young geographers for information exchanges of natural disaster science.

Activities of CHR - mitigation and disaster assessment

This working group was formed to investigate, from a scientific and technical point of view, the role of remote sensing in managing the consequences of natural and man-made disasters and aims at informing and activating people involved in disaster monitoring, mitigation and damage assessment from both from public institutions and private companies. To promote research plan in the regional meetings and planning to main conference IGU2016 China for involvement of young geographers for hazard and risk commission session.

2. Number of members of the Commission (until December 2015)

- 1) Number of Corresponding members of the Commission is 351.
- 2) Members' countries are as follows; IGU commission on hazard and risk corresponding member(name and country)

Azerbaijan 2

Ramiz Mamedov, Elbrus Alizada

Austria 1

Thomas Glade

Australia 3

Bill Boyad, Tom Beer, E.B. Joyce

Bangladesh 9

Musahak Ali, Marju Ben Syed, H.Pramanik, Muhamma Qumrul Hassan, A Wadud Bhiyan, Md Anwarul Abedin, Rajarshi Dasgupta, Rahman Nurkovic, Md Ubydul Haque

Rrazil 4

Antonia Cardenia Fetosa, Rolf Sternberg, Edgardo M. Latrubesse, Ana Luiza Coelho Netto

Canada 2

Nancy Doubleday, Richard E. Salter

Chile 9

Novoa Jose, Victor Quintanilla Perez, Consuelo Castro Avaria, Ferrand-Acufia, Fransisco Heniquea-Ruiz, Cristian Lagos-Lopez, Marcel Martinez-Reyes, Carolina del Pilar, Pena-Cortes

China Taipei 9

Jiun Chuan Lin, Chang-yie David, Su-min Shen, Shen Su Min, Jui-China Chang, Pai Hui Hsu, Lee Ching Fang, Sue Ching Jou, Chun Chieh Chi

China Beijing 11

Chen Huiquan, Ru Qui, Li Guoping, Chnli Zahng, Yao Yifeng, Yee Leung, Wang Hong, Zongxue Xu, Sun Hong Wen, Li Zhuqiang, Benyong Wei

Czech 5

Kamila Klemesova, Ivan Andraska, Vit Vilimerk, Jaromir Demek, Marek Grzes

Egypt 5

El Sayed A.Zaghloul, Mahmoud M.Ashour, Adel Abd el Rahma n Negm、Ahmed Hassan

Finland 1

Paul Forgelberg,

France 5

Alain Miossec, Florent Renard, Fiona Patricia, Monica Fort, Antoine Le Blanc

German 18

Ingo J.Hahn, Jaime Z.Galvez Tan, Juergen Wiechselgartner, Sabine Troger, Carsten Felgentreff, Alexander Fekete, Richad Dicau, Matthias Duking, Raolf Schluinze, Stefan Voigt, Hans Gunter Brauch, Ulnich John, Burghard Meyer, Gabor Mezsi, Gregor Falk, Juergen Newig, Mariele Evers, Antje Wegner

Hungary 3

Ilona Barany Kevei, Zsuszanna Foldi, Annamaria Uzzoli

India 12

Arun Das, Shakil Ahmad Romshoo, Sarojini Pacholi, D.C.Goswami, Susmita Guha Roy, G.S.Chuhan. S.N. Chatterjee, Ambumnoji, Rajib Shaw, Andreas Neef, Nitin Kumar Srivastra, Abhisek Chakrabarty, Twisha Singh

Indonesia 8

Ernan Rustiadi, Yanur Purwanto, Nyoman Sutawan, Jacub Rais, Fadli Syamsudin, Bambang Edhi Leksono, Farah Mulyasari, Wawan Budianta

Israel 4

Arie S. Issar, Yehouda Enzel, Mariya Ivanova Aleksandova, Pariente Sarah,

Italia 3

Emilio Biagini, Nicola A.Josan, Dotta Elena Franzinelli,

Japan 90

Masahiro Etaya,,Reiji Kimura, Shigenobu Tanaka, Yoshitaka Masuda, Akiko Tujimura, Kaori Hayashi, Takeshi Ito, Yoshiki Yamagata, Noboru Huruta, Makoto Ikeshita, Hiroshi Suwa, Kento Ide, Akiyuki Kasawaki, So Hasegawa, Yota Kumaki, Masami Sugiura, Kazuo Ando, Shizuka Hashimoto, Masahiro Sakamoto, Kazunobu Ikeya, Masakazu Tamura, Funabiki Ayako, Naoko Hashimoto, Murooka Mizue, Kaoru Takara, Koji Kodera, Takayuki Shiraiwa, Yoshihiko Oya, Akihiro Iwashita, Takashi Todokoro, Syun Sato, Nobuo Sekita, Yoshitaka Ishikawa, Yukio Himiyama, Takeo Ohonishi, Masahiko Tashiro, Tomoko Horiuchi, Yoshiyuki Murayama, Teiji Watanabe, Satoru Masuda, Yutaka Takahashi, Yusaku Tobita, Takashi Inoguchi, Hiroomi Nakazato, Teruko Sato, Katsuhito Miyake, Tooru Kishida, Takahiro Sayama, Hisaji Yamatoya, Makoto Tani, Yukiko Takeuchi, Daichi Komoto, Akihiro Matsuda, Shigenobu Hiraide, Seiichiro Oketani, Masato Hujiwara, TGeruyuki Kato, Susumu Tanabe, Hori Kazuaki, Umitu Masatomo, Dota Endo, Minoru Kamoto, Kuniyoshi Takeuchi, Masaki Iwafune, Tomoo Taniguchi, Kunihide, Miyaoka, Yasuhisa Kuzuha, Kikmio Takeya, Hiroshi Shimazu, Koarai Mamoru, Kaoru Taichiri, Koji Okumura, Makoto Takahashi, Shinichi Sobue, Makoto Nishimori, Yukihiro Hirai, Yuichi Niwa, Matsumoto Jun, Shohei Matsuura, Hiroshi Une, Yuji Taresawa, Kazushi Yasuda, Mayumi Matsumoto, Seya Hajime, Yoshida Takahiro, Kumiko Nakamichi, Kanae Matsui, Kei Hirai, Fujita Hirotsugu, Tomoko Aoki, Shin'ya Kawamura, Obata Isao, Hiramitsu Hajime etc.

Korea 6

SungHyuo Hyun, Il-kee Kim, Jin Soo Kim, Wook-Hyun Nahm, Keun Bae Yu, Jisoo Kim,

Mexico 3

Alvro Gerando Palacie-Aponte, Patricia Julio-Miranda, Valente Vazques

Myanmar 7

KinKinWay. Kay Thwe Hliang, Maung Maung Aye, Ne Win On, Saw Yaw Naing, Zin New Myint, Kyaw San Oo,

Nepal 2

Leela Devi K.C., Madan L. Shrestha

Norway 1

Haakon Lein

Nigeria 2

John Gambo Laah, Muhammad Alhaji

The Netherland 7

H.Th. Versttapen, Dianeetha Sadacharan, Van Zuidam, Neik Rengers, Lenie van Dorsser, Pieter G, E.F. Augutinus

Philippines 2

Dorocia Zoleta Nantes, Glenn Fiel Fernandez

Poland 25

Boguslaw R.Zagorsk, Dorota Rucinska, Marek Degorski, Karol Rotnicki, Andrzei Tiukabo, Grzegorz Dumienski, Anna Pasiecznik-Dominak, Jan Szupriyczynski, Wojciech Pokojski, Michal Kowalewski, Patryk Korzeniecki, Andrey Witt, Kizytof Blazeiczk, Jaroslaw Barabiwski, Jadwigs Gorajska, Jozef Zychowski, Jacek Mucha, Agnieska Dobosz, Anna Wojtowicsz-Nowakowska, Cedomir Crnogorac, Vesna Rajcevic, Goran Tbic, Artur Magnuszewski, Iwona Wagnerm Maciej Zalewski, Jaroslaw Dziakej, Wojciech Biernacki, Roman Konieczny, Dorota Rucieska,

Portugal 1

Angela Santos

Russia 32

Sergey Dobolyubov, Vladimir I.Kim, Sergey M.Govoruchiko, Alexei Makhinov, Peter Ya. Baklanov, Arkady A. Tishkov, Timofey Orlov, Sergey Martirosovih Arakelian, Veronika Nikolaevna Kapralova, Olga Bazhenova, Yurify Efremov Elizavata Tumentceva, Stanislav makarov, Sergey Govourshko, Sergey Sokratov, Yury Seliverstov, Aleksandr Shnyparkov, Victor Arkhipkin, Vyacheslav Baburin, Alexander Kiskov, Galina Surkova, Sofia Gavrilova, Viktoriya Gryanova, Veniamin Perov, Aleksandr Shnhyparkov, Nikolay Kashimov, Sergey Chalov, Nikolay Alexevsky, Kireeva M, Evgeny Vyazilov, Paul Kargashin, Mammadov Ramiz, Zakhar Bortnovsky, Badina Svetlana, Nikolai Petrov, Petrova Elena, Yatsukhno V.M.,

Sri Lanka 1

Roman Kazyulin, A.W. Jayawardena,

Slovak Republic 1

Jan Feranec

VietNam 29

Pham Van Cu, Le Thi viet Hoa, Dinh Hung Thai, Tran Hong Thai, Pham Thanh Hai, Tran Quoc Vuong, Doanh Theien Thuat, Vu Van Cinh, Nguyen Van Kim, Tran Duy Binh, Ta Duc Thinh, Do Ngoc Hoang, Phan Duy Nga, Nguyen Thi Than, Tran Ngoc Nam, Ha Dinmh Tuan, Bui Huy Hein, Do Van Ngoc, Le Van Tiem, Le Quoc Doanh, Ngyen Vna Quy, Dang Huy Ram, Nguyen Huu Ty, Nguyen Huy Dung, Nguyen Van Coung, Nguyen Khac Hieu, Bu Van Phai, Nguyen Ba Hoang, ThiThiMyTong,

Thailand 13

Ramphing Simking, Tonchai Simking, Uruya Weesakul, Engakul Surapee, Cherdsak, Theerapong Thanasuthipiak, Charchai Tanavud, Prinya Nutalaya, Maj-Sompoch Puntavungkour, Virote Engkagul, Sikke A. Hempenius, Arunee Yuvaniyama, Munpong Juntopas.

Turkey 1

T.Ahmer Ertek,

UK 5

Troy Stenberg, Charlie Piling, Revbecca Martin, David Martinm Smantha cocking,

Ukraine 1

Boris Yatsenko

USA 9

John P.Tiefenbacher, Michael J. Grossman, Tom P. Evans, Francis J.Harvey, P.P Karen, Roy C.CSdle, Richard J. Vogy, Robert I.Schuster, David Lopez Carr,

member country list	number of	
member country list	participant	
Azerbaijan	2	
Austria	1	
Australia	3	
Bangladesh	9	
Brazil	4	
Canada	3	
Chile	9	
China Taipei	9	
China Beijing	11	
Czech	5	
Egypt	5	

Finland	1
France	4
German	18
Hungary	3
India	12
Indonesia	7
Israel	4
Italia	3
Japan	90
Korea	6
Mexico	3
Myanmar	7
Nepal	2
Norway	1
Nigeria	2
The Netherland	7
Philippines	2
Poland	25
Portugal	1
Russia	32
Sri Lanka	1
Slovak Republic	1
VietNam	29
Thailand	13
Turkey	1
UK	5
Ukraine	1
USA	9
Total	351

3. Meetings events from 2012 to 2015

3-1. IGU2015 Moscow Commission sessions of Hazard and risk

IGU2015 report is in http://igu.aikotoba.jp/IGU report.html

In this conference, we provided three commission sessions and the following reports (32 presentations) were presented. The research categories are classified analysis using GIS and remote sensing, hydrologic analysis, social dimension of natural disaster, geomorphologic analysis with disaster damage, disaster with rapid land use and land cover study, etc. We collaborated to discuss each other for future disaster management system using geographical skills.

Session 1 Resilience chair: Shigeko Haruyama

Hydrological regime fluctuations and its dangerous consequences for the rivers of European part of 2.Russia (Kireeva M., Frolova N, Rets E., Telegina E.)

GIS based flash flood runoff simulation model for upper Teesta River Basin - Using ASTER DEM and meteorological data (Abhisek Chakrabarty, Subhra Prakash Mandal)

Resilience and the memory of catastrophes (Antoine Le Blanc)

The Relationship between Real Estate Transactions by Fukushima Refugees and Land Price Changes after the Great East-Japan Earthquake (Shin'ya Kawamura)

Environmental hazards, vulnerability and sustainability issues in Sunderbans of west Bengul, India (Twisha Singh, Anuradha Baneriee)

Creation of tools of warning and prevention of impacts of the dangerous natural disaster (Evgeny Vyazilov, N.Chunyaev) Flood risk of the middle reaches of the Amur in land cover changing (Shigeko Haruyama, Mizue Murooka)



Session 2 Anthropogenic influence on natural hazards and risks: chair: Sergey A.Sokratov

Impact of Artisanal Gold Mining on Soil Quality in Banyumas District, Central Java, Indonesia (Wawan Budianta)

Natural disasters and land-use/land-cover change in the southwest coastal areas of Bangladesh (Md Ubydul Haque)

Geinformational technologies for thematic mapping based on remote sensing data (Paul Kargashin, Boguslav Novakovskiy, Anna Prasolova, Roman Permyakov)

Transformation of landscapes of coast Caspian Sea and experience of landscape planning (Mammadov Ramiz, Elbrus Kerim Alizade)

River runoff of boreal watersheds with anthropogenically transformed land cover (Zakhar Bortnovsky)

Estimation of social-economic risks for the territory of adverse and dangerous natural phenomena spreading (Badina Svetlana, Vyacheslav Baburin)

Land use-vegetation-landslide interactions in the mountainous region of Rio De Janeito State: basis for risk assessment and management (Ana Luiza Coelho Netto, Anderson Mululo Sato and Leonardo Esteves de Freitas)

Landslide risks in Chuvashia (Russia) (Nikolai Petrov, Inna Nikonorova)

The Environmental Geomorphological assessment for urban expansion in Al- Khiran Marine city- Kuwait (Ahmed Hassan) Risks of natural-technological accidents in Russia: geographical analysis of the database(Petrova Elena)

The System of National Indicators for Evaluation of the Progress in Combating Land Degradation (the experience of Belarus) (Yatsukhno V.M., Savchenko V.V., Sauchyk S.F.)

Innovative methods of seismic monitoring as a nevessary part of the area security system (Svetlana Kishkina) Identification of technogenic dust in Murmansk city based on the results of chemical analysis (Roman Kazyulin) Dangerous hydrological phenomena at the Don river mouth and the influence on them of water management actions(D.V.Magritsky)

Coal Mining and Rural Livelihoods in Chhattisgarh, India: An Empirical Analysis (Pushpendra Singh)



Session 3 Natural hazards and risks in Arctic and cold regions environment (Joint session with Commission on Cold region): chair Sokratov S.A., Jose Novoa

Natural hazards in Polar regions – a review (Sokratov S.A., Shnyparkov A.L., Koltermann K.P.)

Are the risks of drought at the regional level lessened by a potential melting of permafrost in the semiarid Chile Andean?(JOSE NOVOA)

Glaciers and their impact on human activity (Govorushko S.M.)

Social and environmental significance of snowstorms (Govorushko S.M.)

The tendency of hazardous geological processes development on the territory of Russia at the beginning of the XXI century (Krestin B.M, Malneva I.V., Kononova N.K.)

Formation of storm surges in the Dvina Bay of the White Sea (V.S.Arkhipkin, S.A. Dobrolyubov, A.D. Korablina)

Landslide risk in the Northern Caucasus (Shnyparkov A.L., Baburin V.L., Gavrilova S.A., Grayznova V.V., Danilina A.V., Martynov A.V.)

Recent rockfalls and rock avalanches in the high mountains (case study of the Caucasus) (Elena Savernyuk)

Assessment of glacial lake outburst flood and debris flow hazard in Northern Afghanistan (Chernomorets S.S., Savernyuk E.A., Dokukin M.D., Tutubalina O.V., Viskhadzhieva K.S.)



3-2 .IGU Regional Conference in Krakow, Poland 18-22 August 2014

http://www.igu2014.org/

IGU 2014 report is in http://www.bio.mie-u.ac.jp/~haruyama/igu/

IGU Commission sessions on hazard and risk were specific five categorized sections of government, academic initiative and partnerships of reduction, resilience, anthropogenic influence on natural hazards and related risks, and there were excellent 41 presentations. The following sessions are discussed in IGU 2014. We got the results of discussion as followings; geomorphologic condition is important for disaster occurrence and we need appropriated information of landform on site. The second results are anthropogenic influence for natural disaster levels and we need more discuss mitigation method including rapid land use change. The following presentations are impress for us.

Session for Government, academic initiative and partnerships on reduction of risks from natural hazards and disasters for adaptation to climate change

Doracie Zoleta-Nantes: Strengthening and capacity of Philippen local government units and state universities on climate change adaptation and disaster risk reduction

John Tiefenbacher: Prospects for climate change focused greenhouse gas emissions mitigation in united state communitiesdiscrimination of the communities using their economic, behavioral and social characteristics-

Session for Disaster and resilience

Wojciech Pokojski et al.: Climate natural hazards in Poland- an attempt to assessment the indicators

Burghard Meyer et al.: From regional climate change to landscape hazardsoperationalization of the impacts

Jisoo Kim et al.: Possible threat on cultural heritage by flooding in Seoul

Krzytof Blazeiczk: Acoustic climate of selected sections of road corridors in Poland

Hirotsugu Fujita: Reconstruction support utilizing old maps remaining in the disaster area of the 2011 Tohoku earthquake

Session for Anthropogenic influence on natural hazards and related risks

Jodwiga Gorajska: Changes in the geometry of selected sections of the Vitsula channel in the foreland of the Carpathian Mountains due to river regulation in the 19th and 20th centuries

Yuriy Efremov: Conditions of mudflows formation on the greater Caucasus

Sergey Sokratove et al.: Anthropogenic pressure in mountain environment and related changes in snow avalanches and debris flows activity

Marek Degorski: Impact of heavy roads traffic on soil properties and human well-being

Artur Magnuszewski et al.: Sulejow reservoir eutrophication- how to quantify and solve the problem by ecohydrology approach? Zsuzsanna Foldi et al.: Social awareness of climate change related risks- synthesis of pilot studies from central and south east Europe

Dorota Rucinska: Social vulnerability estimate and space scale analysis

Chun Chieh Chi: Post disaster socio cultural resilience among indigenous Taiwanaese in south Taiwan**Session for Land use** change and Urban flood

Hiroshi Shimazu: Flash flood caused b ya severe short time downpour in highly urbanized Tokyo metropolis

Jose Novoa: Geomorphological risk and maximum flow tendencies in climate change context (semi arid, South Ameria) LIDAR data

Marta Borowska-Stefaniska: Land use on the areas exposed to floods in Lodz region

Bozena Degorska et al.: Adaptation of spatial development of big cities to climate change on example of Warsaw Opportunities and threats

Session for Adaptation and governance for future climate change and disaster

Nsikan-George Emana: Addressing procedural gaps in the formulation of climate change adaptation policy- case study with the Nigeria adaptation policy

Kimoto Koichi et al.: Comparative analysis of agriculture productivity and its relationship in the distribution of livestock as an indicator of desertification in Karnataka state, India

Sergey Dobrolyubov et al.: Storm activity in future climate and assessment of socio-economic risks within Russian coastal zones

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3-3. IGU Kyoto Regional Conference 2013 August 4-9, 2013 Kyoto International Conference Center

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http://www.igu-kyoto2013.org/

IGU2013 report is in http://www.bio.mie-u.ac.jp/~haruyama/igu/

Commission prepared the following 8 commission sessions and there are 89 presentations in Kyoto conference. In the sessions, risk management, social interchange, geo-hazards, atmosphere-related hazards, ecosystem and biotic interactions with natural catastrophes, disaster prevention and early warning system, risk assessment and risk communication, disaster risk and conflict are discussed. Geo-hazards included land slide, coastal erosion, volcanic hazard and also earthquake with liquefaction and Tsunami. Regarding to social dimension, risk assessment should be more discussed with risk communication and also there are risk and conflict in mega city. Eastern Japan Mega earthquake and Tsunami issue was a lesson of disaster mitigation and resuscitation after disaster. We discussed that 2004 Sumatra earthquake and revival of regions, and 2011 Tohoku Japan disaster and reconstruction of Sanriku area. The following presentation are very impressed.

Disaster and forecasting session

Abandonment of farmlands after the 2011 Tohoku Earthquake tsunami disaster in the unprotected floodplain of the Lower Natori River, Japan: Hiroshi Shimazu



Geographical classification considering disaster properties in Japan:Mamoru Koarai (Geospatial Information Authority of Japan)Takayuki Nakano

Earthquake Damage and Issues on Housing Estates on Transformed Hills in Japan: Yoshiyuki Murayama (Yamagata Univresity), Shin-Ichi Hirano, Satoru Masuda

Panel survey of corporate activity on damage and recovery in Tohoku region after the Great East Japan Earthquake:Satoru Masuda (Tohoku University)

Forecasting Earthquake Hazards Along the Himalayan Frontal Faults in India:Koji Okumura (Hiroshima University), Javed N Malik, Sahoo Santiswarup, Sambit P Naik, Afzal Khan, Teruyuki Kato

Effects of changes of scale in the delimitation of areas of flood for tsunami: Caleta San Pedro, Coquimbo Bay (Chile): Jose Novoa (University of La Serena), Patricia Paz

Sharing experiences of the catastrophe: the research practices of Nagoya University in Aceh

Makoto Takahashi (Nagoya University), Shigeyoshi Tanaka

On December 26, 2004, the super-giant tsunami, which was accompanied by the second biggest. Flood monitoring by using L-band SAR:Shinichi Sobue (JAXA), Kei Oyoshi, Tomoyuki Nukui, Masanobu Shimada, Toru Fukuda

Co-seismic subsidence during the Holocene detected in the delta sequence on the footwall of the Yoro fault system, central Japan: Yuichi Niwa (Tohoku university), Toshihiko Sugai

North Anatolian fault as the best laboratory for recurring large earthquakes: Koji Okumura (Hiroshima University)

Resilience and risk communication session

Roles of Geographic Clarification on Disaster Risk Reduction Technology Databases: Yukiko Takeuchi (Kyoto University)



Resilience through Religion: Faith-Based Organizations as Risk Communicators in Bandung, Indonesia:Farah Mulyasari (Graduate School of Global Environmental Studies, Kyoto University),Rajib Shaw

Youth Participation in Disaster Risk Reduction in Makati, Philippines: A Social Network Analysis:Glenn Fiel Fernandez (Kyoto University), Rajib Shaw

The Flood Forecasting Centre, Natural Hazard Partnership and the Hazard centre; operational early warning and communication services in the UK: Charlie Pilling (UK Met Office), David Price

Risk assessment of the Mekong delta in the land use change: Shigeko Haruyama (Mie University)

Local Community Activities for Disaster Prevention and Mitigation -Lesson from East Japan Great Earthquake and Tsunami 2011-:Yuji Taresawa

Spatially explicit urban land-use model for managing climate risks: Hajime Seya (National Institute for Environmental Studies), Yoshiki Yamagata, Kumiko Nakamichi

Prediction of past land use using a spatial filtering approach: Takahiro Yoshida (University of Tsukuba / National Institute of Environmental Studies), Morito Tsutsumi, Yoshiki Yamagata, Hajime Seya, Daisuke Murakami

Community-based Disaster Resilient Electricity Sharing System(DRESS):Simulation case study in Yokohama Yoshiki Yamagata (National Institute for Environmental Studies)

Hedonic analysis of flooding risk in Tokyo using a spatial econometric model with endogenous explanatory variables: Hajime Spatial Flooding Hazard Indices using Sensor Networks: Requirement Analysis for Flooding Risk Management: Kei Hiroi (Keio University/National Institute of Environmental Studies), Hitoshi Yokoyama, Hideki Sunahara, Yoshiki Yamagata



3-4. 6-30 Aug., 2012 IGU Congress Cologne, Germany

One of the important Hazard and risk sessions was earthquake and Tsunami, and future mitigation and vulnerability and resilience were both discussed. There were three sessions and 24 presentations. The following presentations are impressed.

Earthquake and Tsunami special session

Tsunami impacts on a threatened island ecosystem: Ingo Hahn | Univ. Münster | Münster

Potential Flooding by Tsunami in Coquimbo, Chile: JOSE NOVOA | UNIVERSITY OF LA SERENA

The North Sea Tsunami of June 5, 1858: Juergen Newig | Universität Kiel | Flintbek

Influences of landforms on the extreme tsunami disaster caused by the 2011 off the Pacific coast of Tohoku Earthquake in the lower reaches of the R. Natori and the Sendai Plain, northeast Japan:Hiroshi Shimazu | Rissho University |

Hazard and risk for future mitigation session:chair Shigeko Haruyama, Victor G. Jetten

Toyooka 2004 Flooding and community activities for mitigation: Shigeko Haruyama

Locating choke points and mapping land use changes in select river systems of Metro Manila: Doracie Zoleta-Nantes | Australian National University

Atmospheric droughts over North Eurasia since the middle of 20th century: Andrey Shmakin | Institute of Geography, Russian Academy of Sciences | Moscow

The Research of the Residents' Experience and Behavior vs. on The Local Government's Land Use Strategy

Flood Risk Analysis for the Territory of Russian Federation: Pavel Tersky | Moscow State University | Moscow

Centurial channel and landcover change of the valley floodplain and its implication on flood hazard, Kaoping River, southern Taiwan: Su-Min Shen | National Taiwan Normal University |

Vulnerability and Resilience

Spatial and Social Inequities in Exposure to Flood Hazards: A Case Study in Miami, Florida :Jayajit Chakraborty | University of South Florida |

Public participation and institutional alignment in river governance:Multi-stakeholder platforms for Tanshui River Basin Management:Sue-Ching Jou | National Taiwan University |

Reduction of urban flood vulnerability by collaborative modeling: Mariele Evers | Bergische Universität

4. Networking and communication

The IGU main conference and regional conference were communication pier of Hazard and Risk Commission and we, commission SC member and all of participants, discussed using mail based discussion for future conference activities. Circulated E-newsletters were information board and were for understanding IGU activities and the other academic committee actions.

The following web site is IGU commission on hazard and risk E-newsletter https://drive.google.com/file/d/0B2vZKKmZ3Yb6M2RzVk05WkQxOlk/view?usp=sharing

IGU commission on hazard and risk E-Newsletter Titles (2012-2015)

The following newsletters are the another attached file(PDF file).

No. 130 IGU Commission on Hazard and Risk: The International Congress Geotunis 2012

No. 131 IGU Commission on Hazard and Risk: APRSAF News <31 Aug 2011 #085>

No. 132 IGU Commission on Hazard and Risk: COM.Geo Mobile Classes Open, COM.Geo 2012 Call for Submissions

No. 133 IGU Commission on Hazard and Risk: EGU Humboldt Conference, Penang/Malaysia, Cusco, Peru, November 12th - 16th, 2012

No. 134 IGU Commission on Hazard and Risk: GLP email-update No.40

No. 135 IGU Commission on Hazard and Risk: IGU hazard and risk commission in Chile

No. 136 IGU Commission on Hazard and Risk: APRSAF-18 Second Announcement

No. 137 IGU Commission on Hazard and Risk: 2nd call for papers SDH 2012 $\,$

No. 138 IGU Commission on Hazard and Risk: APRSAF News <31 Oct 2011 #087>

No. 139 IGU Commission on Hazard and Risk: GLP - breaking news

No. 140 IGU Commission on Hazard and Risk: Deadline for IGC in Cologne

No. 141 IGU Commission on Hazard and Risk: report of 2011 IGU Chile

No. 142 IGU Commission on Hazard and Risk: 2012 IGU submission (deadline is soon)

No. 143 IGU Commission on Hazard and Risk: APRSAF News <2 Dec 2011 #088>

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No. 144 IGU Commission on Hazard and Risk: Call for papers extended until 8 January 2012
No. 145 IGU Commission on Hazard and Risk: SSAG 2012 conference
No. 146 IGU Commission on Hazard and Risk: GLP email-update No.42 *change of IPO!*
No. 147 IGU Commission on Hazard and Risk: Please answer APRSAF questionnaire
No. 148 IGU Commission on Hazard and Risk: World of Associations News 10 January 2012
No. 149 IGU Commission on Hazard and Risk: COM.Geo 2012 Highlight: Sensor Computing for Geospatial
No. 150 IGU Commission on Hazard and Risk: Call for Papers - DDSS 2012 - The Netherlands
No. 151 IGU Commission on Hazard and Risk: EAS Congress 2012 Update - February 2012
No. 152 IGU Commission on Hazard and Risk: Colloquium
No. 153 IGU Commission on Hazard and Risk: ESSP call for members of Katerva Viability Panel
No. 154 IGU Commission on Hazard and Risk: World of Associations News 7 February 2012
No. 155 IGU Commission on Hazard and Risk: 2nd call: INTERNATIONAL SYMPOSIUM OF GEOGRAPHY
No. 156 IGU Commission on Hazard and Risk: Call for Papers: Environmental Health Risk
No. 157 IGU Commission on Hazard and Risk: newsletter NS1
No. 158 IGU Commission on Hazard and Risk: 12th International Multidisciplinary Scientific GeoConference SGEM2012
No. 159 IGU Commission on Hazard and Risk: Abstract submission online GB2012
No. 160 IGU Commission on Hazard and Risk: GLP News No. 43
No. 161 IGU Commission on Hazard and Risk: AOGS2012
No. 162 IGU Commission on Hazard and Risk: Invitation to EAS Congress 2012
No. 163 IGU Commission on Hazard and Risk: Brazil - international seminar about open environmental data - Porto Alegre, 23 & 24 August 2012
No. 164 IGU Commission on Hazard and Risk: EAS Congress 2012 Update - April 2012
No. 165 IGU Commission on Hazard and Risk: IS.RIVERS 2012 Conference - Last week to benefit from the early registration rate!
No. 166 IGU Commission on Hazard and Risk: IGC programme now online
No. 167 IGU Commission on Hazard and Risk: EAS Congress 2012 Update - May 2012
No. 168 IGU Commission on Hazard and Risk: APRSAF News <11 May 2012 #093>
No. 169 IGU Commission on Hazard and Risk: IGU e-Newsletter
No. 170 IGU Commission on Hazard and Risk: The Networker: May 2012
No. 171 IGU Commission on Hazard and Risk: GLP e-News No. 46
No. 172 IGU Commission on Hazard and Risk: PEMSEA E-Updates Vol. 13, Issue No. 3
No. 173 IGU Commission on Hazard and Risk: Newsletter 06-2012
No. 174 IGU Commission on Hazard and Risk: Call for Application and Nomination
No. 175 IGU Commission on Hazard and Risk: [IEEE Xplore/ISI/Ei] CISP'12-BMEI'12 2nd Round Submissions due 30 July, Chongqing, China
No. 176 IGU Commission on Hazard and Risk: APRSAF-19 First Announcement
No. 177 IGU Commission on Hazard and Risk: GLP e-News No. 48
No. 178 IGU Commission on Hazard and Risk: India IGU Conference in March 2013
No. 179 IGU Commission on Hazard and Risk: APRSAF News <31 Jul 2012 #096>
No. 180 IGU Commission on Hazard and Risk: Newsletter 11
No. 181 IGU Commission on Hazard and Risk: Progress in Indian Geography for IGU Cologne and India IGU Int. Conference
No. 182 IGU Commission on Hazard and Risk: Report of IGU Cologne Meeting
No. 183 IGU Commission on Hazard and Risk: APRSAF News <31 Oct 2012 #099>
No. 184 IGU Commission on Hazard and Risk: IGU news letterNS4_October12
No. 185 IGU Commission on Hazard and Risk: GLP News No.9 now released!
No. 186 IGU Commission on Hazard and Risk: Holiday Greetings from PEMSEA
No. 187 IGU Commission on Hazard and Risk: World Data System Newsletter (December 2012)
No. 188 IGU Commission on Hazard and Risk: Invitation for the symposium in University of Taiba, Saudi Arabia
No. 189 IGU Commission on Hazard and Risk: IGU Kyoto Regional Conference Extension of deadline for abstract submission
No. 190 IGU Commission on Hazard and Risk: 10th Annual Conference in Brisbane
No. 191 IGU Commission on Hazard and Risk: GLP e-News No.53
No. 192 IGU Commission on Hazard and Risk: APRSAF News <5 Feb 2013 #102>
No. 193 IGU Commission on Hazard and Risk: Proceedings Indexed by ISI, Thomson, CrossRef, EBSCO, ProQuest, etc.
No. 194 IGU Commission on Hazard and Risk: EUROGEO January news, journals and conference
No. 195 IGU Commission on Hazard and Risk: PEMSEA e-Updates Volume 14, Issue 1: Scaling Up ICM: Case Studies in Sustainable
Development
No. 196 IGU Commission on Hazard and Risk: Africa Climate Conference call for abstracts
No. 197 IGU Commission on Hazard and Risk: THE 5-TH INTERNATIONAL SYMPOSIUM OF GEOGRAPHY: LANDSCAPES:
PERCEPTION, KNOWLEDGE, AWARENESS AND ACTION, BUCHAREST, ROMANIA
No. 198 IGU Commission on Hazard and Risk: Abstracts Extended, Proceedings indexed by Thomson Reuters, ProQuest, CrossRef, EBSCO, etc.
No. 199 IGU Commission on Hazard and Risk: Call for Papers: IGU Mediterranean Basin Session at Fourth EUGEO Congress, Rome, 5-7
No. 200 IGU Commission on Hazard and Risk: IGU Kyoto 2013: Newsletter (1 April)
No. 201 IGU Commission on Hazard and Risk: GLP e-News No.55
No. 202 IGU Commission on Hazard and Risk: KRC registrati-on fee
No. 203 IGU Commission on Hazard and Risk: IT Workshop 2nd Round Submissions due 16 May: IEEE Xplore/EI Compendex/-ISI
No. 204 IGU Commission on Hazard and Risk: TWAS-LENOV-O Science Prize announcement
No. 205 IGU Commission on Hazard and Risk: PEMSEA e-Updates Volume 14, Issue 2: PEMSEA Kicks off 20th Anniversary Celebrations
No. 206 IGU Commission on Hazard and Risk: IGU Newsletter N.S. 26 April 2013
No. 207 IGU Commission on Hazard and Risk: Call for Abstract Submission: 2014 GLP Open Science Meeting - Deadline June 30, 2013
No. 208 IGU Commission on Hazard and Risk: APRSAF News <17 May 2013 #105>
No. 209 IGU Commission on Hazard and Risk: GLP e-News No.57
No. 210 IGU Commission on Hazard and Risk: Computer Applications Conference Hong Kong (IEEE Xplore/Ei Compendex/-ISTP): Extended
Deadline July 15
No. 211 IGU Commission on Hazard and Risk: Letter of proposal for IGU session in at Kashmir University, Jammu & Kashmir, India
Commission on Mou
No. 212 IGU Commission on Hazard and Risk: Vacancy Announcement: Administrative Coordinator (CROP)
No. 213 IGU Commission on Hazard and Risk: Novatech 2012 - Last days to register!
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No. 214 IGU Commission on Hazard and Risk: IRDR Contribution to GAR No. 215 IGU Commission on Hazard and Risk: GLP e-News No.58

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No. 216 IGU Commission on Hazard and Risk: UIA Associations Round Table 2013 invitation
No. 217 IGU Commission on Hazard and Risk: Circular of IGU Seminar at Srinagar, June 2014
No. 218 IGU Commission on Hazard and Risk: Sad News
No. 219 IGU Commission on Hazard and Risk: KRC2013 program
No. 220 IGU Commission on Hazard and Risk: ARSAF News <18 Jul 2013 #107>
No. 221 IGU Commission on Hazard and Risk; Call for applications WZB-ISSC Global Fellowship
No. 222 IGU Commission on Hazard and Risk: Call to host permanent sercretariat of Future Earth
No. 223 IGU Commission on Hazard and Risk: GLP e-News No.59
No. 224 IGU Commission on Hazard and Risk: 2014 IGU Regional Conference, Krakow, Poland
No. 225 IGU Commission on Hazard and Risk: Global Carbon Project and CGER News
No. 226 IGU Commission on Hazard and Risk: PEMSEA E-Updates Vol. 14, Issue 3: PEMSEA Celebrates 20 Years of Progressive Partnerships
for the Shared Seas of East Asia
No. 227 IGU Commission on Hazard and Risk: APRSAF News <2 Aug 2013 #108>
No. 228 IGU Commission on Hazard and Risk: UIA Associations Round Table 2013 - invitation
No. 229 IGU Commission on Hazard and Risk: Newsletter NS/ July 2013
No. 230 IGU Commission on Hazard and Risk: Report of KRC Hazard and Risk Session
No. 231 IGU Commission on Hazard and Risk: PEMSEA E-Updates Vol. 14, Issue 4: Fifth EAS Partnership Council Meeting Moves SDS-SEA
and PEMSEA Forward to 2015 and Beyond
No. 232 IGU Commission on Hazard and Risk: APRSAF News <29 Aug 2013 #109>
No. 233 IGU Commission on Hazard and Risk: European Geosciences Union General Assembly 2014
No. 234 IGU Commission on Hazard and Risk: SECOND CALL FOR ABSTRACTS
No. 235 IGU Commission on Hazard and Risk: Vote for PEMSEA at the IW WOW Awards 2013!
No. 236 IGU Commission on Hazard and Risk: GLP e-News No. 62
No. 237 IGU Commission on Hazard and Risk: APRSAF News <8 Nov 2013 #111>
No. 238 IGU Commission on Hazard and Risk: IGU Newsletter NS 8
No. 239 IGU Commission on Hazard and Risk: Volvo Environment Prize for IGU VP Qin Dahe
No. 240 IGU Commission on Hazard and Risk: GLP e-News No. 63
No. 241 IGU Commission on Hazard and Risk: Call for Applications: Young Scientists Networking Conference on Integrated Science
No. 242 IGU Commission on Hazard and Risk: Announcements
No. 243 IGU Commission on Hazard and Risk: Sessions at 2014 IGU conference, Krakow, Poland
No. 244 IGU Commission on Hazard and Risk: IGU mail sending information of EGU 2014
No. 245 IGU Commission on Hazard and Risk: PRESS RELEASE: UN sets the stage for adoption of a new global agreement on disaster risk in
2015
No. 246 IGU Commission on Hazard and Risk: UN VACANCY JOB NEWSLETTER
No. 247 IGU Commission on Hazard and Risk: Request APRSAF questionnaire
No. 248 IGU Commission on Hazard and Risk: RC IGU 2014 Krakow, Poland: abstract submission by 15 Jan. 2014
No. 249 IGU Commission on Hazard and Risk: RC IGU 2014 Krakow, Poland: abstract submission: state of 13 Jan. 2014
No. 250 IGU Commission on Hazard and Risk: PEMSEA E-Updates: Vol 15, No. 01 - PEMSEA Launches Special 20th
   Anniversary Publication: PERSPECTIVES
No. 251 IGU Commission on Hazard and Risk: [RIMMA2014] Risk Information Management, Risk Models, and Applications //
   Berlin, Nov. 17/18, 2014 // CfP //
No. 252 IGU Commission on Hazard and Risk: IGU newletter
No. 253 IGU Commission on Hazard and Risk: PEMSEA E-Updates: February 2014, Vol. 15, Issue 02 - PEMSEA Shares
   Experience at 7th GEF IW Conference in Barbados
No. 254 IGU Commission on Hazard and Risk: IT Track, 2nd Round Submissions due 16 May: Submitting to IEEE Xplore/EI
   Compendex/ISI 022717
No. 255 IGU Commission on Hazard and Risk: Geomorphology and Society IGU Commission inaugural meeting
No. 256 IGU Commission on Hazard and Risk; Regional conference IGU 2015, Moscow, Russia
No. 257 IGU Commission on Hazard and Risk: APRSAF News <31 Mar 2014 #116>
No. 258 IGU Commission on Hazard and Risk: World's Large Rivers Conference 2014 in Manaus, Brazil - Reminder
No. 259 IGU Commission on Hazard and Risk: Friendly Reminder: Announcement: new Transformations to Sustainability
   Programme and Preparatory Call for Seed Funding
No. 260 IGU Commission on Hazard and Risk: IGU Newsletter New Series 10
No. 261 IGU Commission on Hazard and Risk: ISSC Newsletter
No. 262 IGU Commission on Hazard and Risk: 6th Doreen Massey Annual Event - Provocations of the Present
No. 263 IGU Commission on Hazard and Risk: Geography News: Journal, conference, Geoskills, competition
No. 264 IGU Commission on Hazard and Risk: IGU 2014 Conference workshops
No. 265 IGU Commission on Hazard and Risk: 1st Circular
No. 266 IGU Commission on Hazard and Risk: latest e-news
No. 267 IGU Commission on Hazard and Risk: RC IGU 2014 the final conference programme
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No. 268 IGU Commission on Hazard and Risk: IGU Newsletter July 2014

No. 269 IGU Commission on Hazard and Risk: Sessions at EUGEO2015

No. 270 IGU Commission on Hazard and Risk: Call for papers IS.RIVERS - International conference Integrative Sciences and sustainable development of rivers - ZABR - June 22- 26, 2015 - Lyon, FRANCE

(See HP of our commission: http://www.bio.mie-u.ac.jp/~haruyama/igu/)

These are including IGU newsletter, the other news for circulation from the other academic association.

5. Collaborative effort with other IGU Commissions

Collaboration session with IGU cold region commission at Moscow 2015 and both commissions will be also collaborated in IGU China 2016.

As for the outside of IGU community, Japan geographical association, JpGU association and IRDR community are collaboration communities.

Collaboration with IAPG(The website of the IAPG is: www.geoethics.org.). Geoethics studies hazard and risk and is a tool to influence the awareness of society regarding problems related to geo-resources and geo-environment. The Commission of Hazard and Risk of IGU and the IAPG will work together on these issues in common.

6. Publications:

- S.Haruyama and Mike Meadaws(2012) IGU hazard and risk (UN Booklet)
- S.Haruyama eds.(2013.10)"Coastal Geomorphology and Vulnerability of Disaster towards disaster risk reduction". TERRAPUB Publisher (Japan).180p. (E) (IGU commission on hazard and risk) https://www.terrapub.co.jp/books/index.html

Contents of Coastal geomorphology and vulnerability of Disaster towards disaster risk reduction

Introduction
Shigeko Haruyama
Tsunami and Disaster
Review of Geomorphology and Tsunami Deposits
José Enrique Novoa Jerez and Carolina Pía Villagrán
Attachment as the Culture of Place: Social Resilience from Risk in
Concepción (Chile)
Hugo Capellà Miternique
Soil Importance in a Threatened Island Ecosystem: Impact of the 2010
Chilean Tsunami on Biotic and Abiotic Components
Ingo J Hahn
Tsunami 2004 Disaster Impacted by Recent Land Use Change in Phuket,
Thailand
Shigeko Haruyama and Kaori Hayashi
Coastal Landform in the Southern Part of Miyagi Prefecture and 2011
Tsunami Disaster
Yuji Taresawa and Shigeko Haruyama
Coastal Disaster
Risk Assessment of Coastal Erosion in the Red River Delta in Vietnam
Mizue Murooka and Shigeko Haruyama
Flood Disasters, Tropical Cyclones, Gender Blindness and Disaster Risk
Reduction and Mitigation in Thua Thien Hue Province, Central Vietnam
Doracie B. Zoleta-Nantes
GIS Analysis for Tropical Cyclones and Coastal Plain in Myanmar
Kay Thwe Hlaing, Mayumi Matsumoto, Maung Maung Aye and
Shigeko Haruyama
Understanding Natural Hazards and Social Vulnerability in Brazilian
Urban Rivers—A Case Study Lutiane Queiroz de Almeida

On going project:

Natural disaster and coastal geomorphology (Springer publisher) preparing

7. Future event

In IGU 2016 China, our commission prepares disaster governance, hazard and risk science, cold region disaster and climatic change adaptation related with natural disaster.

The first session: The number of disaster reports show that the human-induces change in environmental conditions is usually similar or even exceeds the climatic-driven year-by-year variability in the activity and in dimensions of various natural disasters. Anthropogenic change, such as, land form, geomorphological features, water balance, vegetation features, etc., occurring in short periods of time, can change the locations and characteristics of floods, storm surges, liquefaction and earthquake, landslides, debris flows, snow avalanches, etc. Additionally, appearance of new industrial construction and related migration of population change the risk

values in each economic level. Differently to natural environmental trends in hazards' activity and related risks, estimation of the human-induced evolution in such parameters can rarely be based on long-term statistical data in GIS utilities, and requires development of other techniques and remote sensing technology. Contributions related to understanding of the possible consequences of anthropogenic changes of natural environment on the dynamics of natural hazards and the ways of risk assessment under anthropogenic pressure are invited. Also resiliene studies for natural disaster, disaster sciences and risk communication studies are well come to presentation.

The second session: This session would like to call for papers on discussing issues and perspectives of the role of public participation on the hazards and risk governance. It tries to draw particular attention to the application or support of open data and geo-technology, which might help the efficacy and relevancy of public participation on risk management or governance in hazard prone areas. Geographical studies or experiences of professional practices along the line of participatory governance, civic science, sustainability sciences or geoinformation science will be very welcomed to submit papers to enhance and to broaden the scholarly discussion of related issues on the session topic.

The third session jointed with IGU Commission on Cold region: Cold socio-ecological systems embodying the Arctic, High mountains and the Antarctic experience rapid changes. These changes unavoidably increase the risks, which requires deep understanding of the interrelations between various environmental, ecological and social components and driving forces. Presentations devoted not only to understanding, assessment, but proposing approaches for shaping changes and resilience building in complex Cold socio-ecological systems are invited.