

COMMISSON REPORT
COMMISSION ON HAZARD AND RISK – C08.18
INTERNATIONAL GEOGRAPHICAL UNION
January, 2012 – December, 2013

1. Steering Committee Members

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Home page manager: Mizue Murooka

2. Number of members of the Commission (as of 30 September 2013)

1) Number of Corresponding members of the Commission is 200.

2) Members' countries are as follows;

Australia, Austria, Belgium, China, Chile, Brazil, Denmark, France, India, Italy, Iran, Japan, Korea, Russia, France, Malta, Mexico, the Netherland, Poland, Rumania, Slovenia, Thailand, Taiwan, Myanmar, Philippines, Vietnam, Bangladesh and so on.

3) Example of corresponding members;

Abe Takasi, Akiyama Motohide, Alexey Lankin, Anbumozhi Venkatachalam, Andrey Shmakin, Arun Das, Atsushi Koresawa, Blaž Komac, C Virapat IOIHQ, Charlchai Tanavud, Dale Dominey-Howes, David Carr, Dinh Thai Huwng, Dolores Hipolito, Rana Sarmah, Enrique Novoa-Jerez, Fukano Asami, Funabiki Ayako, Ganzei, Yamamoto, Herman Verstappen, Hashimoto Naoko, Yukio Himiyama, Tomoko Nagao, Hiroshi Shimazu, Yukihiro Hirai, Hirotada Matsuki, Ishikawa Yoshitaka, J. Weichselgartner, Jan Feranec, Joshua Comenetz, Kazue Wakamatsu, Kamoto Minoru, Kay Thwe Hlaing, Mounng Mounng Aye, Koarai Mamoru, Kondoh Ahikiko, Kotaro Yamagata, Kumi Saito, Kunihide Miyaoka, Mahmoud Mohamed Ashour, Matsuda Akihiro, Masuda Kooiti, Matija Zorn, Micadei, Mikami Takehiko, Mishina, Mokmr, Morisima, Murayama Yuji, Murooka, Nakamura, Nogami Michio, Okabe, Shigenobu Hiraide, Soumendu Chatterjee, Srikantha Herath, Sugai, Takagi Akihiko, Tamura, Tanabe, Tetsuo Mizuta, Tezuka Akira, Tubokawa Hiroaki, Uchida Kazuko, Une Hiroshi, Usui Teruko, Victor G. Jetten, Wakita, Wangdexuan, Yamada Harumichi, Yasuhiko Kato, Yokoi, Yoshitani, Zhangbai, Sergey A. SOKRATOV, Sue-Ching Jou, Ingo J. Hahn, Blaz Komac, Doracie Zoleta-Nantes, Marek Degorski, Shizuka Hashimoto, Koji Okumura, marju Ben Sayid, Taresawa Yuji, Sofue Takashi, Matsumoto Mayumi, Jun Matsumoto, Watanabe Teiji, Oketani Seiichi and so on.

3. Meetings in 2012

- a) IGU Santiago 2011 regional conference was held in Santiago, Chile, 2011.
b) IGU Colonge 2012 IGC was held in Colonge, German, 2012. (Aug.29 2012)

Earthquake and Tsunami special session Chair: Shigeo Haruyama

1. Tsunami impacts on a threatened island ecosystem (Ingo Hahn | Univ. Münster | DE)
2. Potential Flooding by Tsunami in Coquimbo, Chile(JOSE NOVOA | UNIVERSITY OF LA SERENA | CL)
3. The North Sea Tsunami of June 5, 1858 (Juergen Newig | Universität Kiel | DE)
4. 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 | JP)

Hazard and risk for future mitigation Chair: Shigeo Haruyama

5. Introduction: Shigeo Haruyama
6. Toyooka 2004 Flooding and community activities for mitigation(Shigeo Haruyama)
7. Locating choke points and mapping land use changes in select river systems of Metro Manila: Historical mapping of constriction and disappearance of waterways in urban settlements(Doracie Zoleta-Nantes | Australian National University | AU)
8. Landslide hazard zonation (Masood Beheshtirad | Islamic Azad University, Science & Research, Sirjan branch | Sirjan)
9. Atmospheric droughts over North Eurasia since the middle of 20th century(Andrey Shmakin | Institute of Geography, Russian Academy of Sciences | RU)

Hazard and risk for future mitigation, Chair Andrey Shmakin

10. The Research of the Residents' Experience and Behavior vs. on The Local Government's Land Use Strategy Under The Influence of Extreme Weather(Robert Y.S. Chen | National Kaohsiung Normal University | TW)
11. Impact of Quaternary Climate Changes on Slope Instability, Case study : Molab Mountain Basin(Zal River), Iran(Manijeh Ghahroudi | Shahid Beheshti University | IR)
12. Planning and Implementation of the Dyke Systems in the Mekong Delta, Vietnam(Cong Huu Pham | Can Tho University | VN)
13. Flood Risk Analysis for the Territory of Russian Federation(Pavel Tersky | Moscow State University | RU)

Hazard and risk for future mitigation - Poster session

14. Introduction: Shigeo Haruyama
15. Study of rockslide regions in the territory of Republic of Armenia(Marat Grigoryan | Yerevan State University | AM)
16. Landslide hazard at the flysch-carbonate contact in SW Slovenia(Matija Zorn | Scientific Research Centre of the Slovenian Academy of Sciences and Arts | SI)
17. Urban floods in the Arouca village (Portugal): influence of surface runoff network and land use dynamics.(Inês Marafuz | University of Oporto | PT)
18. Centurial channel and land cover change of the valley floodplain and its implication on flood hazard, Kaoping River, southern Taiwan(Su-Min Shen | National Taiwan Normal University | TW)

Vulnerability and Resilience 1 Chair: Shigeo Haruyama

19. Introduction: Shigeo Haruyama
20. Spatial and Social Inequities in Exposure to Flood Hazards: A Case Study in Miami, Florida(Chakraborty | University of South Florida | US)
21. Public participation and institutional alignment in river governance: Multi-stakeholder platforms for Tanshui River Basin Management(Sue-Ching Jou | National Taiwan University | Taipei | TW)
22. Reduction of urban flood vulnerability by collaborative modelling (Mariele Evers | Bergische Universität Wuppertal | Wuppertal | DE)
23. Vulnerability Wiki – A collaborative knowledge platform (Antje Wegner | Karlsruhe Institute of Technology | Karlsruhe | DE)

c)IGU Kyoto 2013 regional conference was held in Kyoto, Japan,2013

Geo-hazards and their impacts on human society session (chair Jose Enrique Novoa Jerez, Hiroshi Simazu and Koji Okumura)

1. Abandonment of farmlands after the 2011 Tohoku Earthquake tsunami disaster in the unprotected floodplain of the Lower Natori River, Japan(Shimazu)
2. Geographical classification considering disaster properties in Japan(Koarai)
3. Earthquake Damage and Issues on Housing Estates on Transformed Hills in Japan(Murayama)
4. Panel survey of corporate activity on damage and recovery in Tohoku region after the Great East Japan Earthquake(Masuda)
5. Forecasting Earthquake Hazards Along the Himalayan Frontal Faults in India(Okumura)
6. Effects of changes of scale in the delimitation of areas of flood for tsunami: Caleta San Pedro, Coquimbo Bay (Novoa)

7. Sharing experiences of the catastrophe: the research practices of Nagoya University in Aceh (Takahashi)
8. Flood monitoring by using L-band SAR (Sobue)
9. Severe coastal erosion and its countermeasures at the Thuan An inlet of Tam Giang Lagoon, Central Viet Nam (Hirai)
10. River Training Works of Jamuna Bridge and the Jamuna River Morphology (Kamoto)
11. Cosismic subsidence during the Holocene detected in the delta sequence on the footwall of the Yoro fault system, central Japan (Niwa)
12. North Anatolian fault as the best laboratory for recurring large earthquakes (Okumura)

Atmosphere-related hazards and impacts on society session (chair Marek Degorski and Shigeko Haruyama)

13. Changes of weather extremes in the western half of Russia since mid-20th century (Simakin)
14. High-resolution retrospective analysis of extreme waves and storm surges in the Caspian, Black, Azov and Baltic Seas (Dobrolyubov)
15. Climate change as a cause of hazard and risk for the spatial development (Degorski)
16. Vegetation and meteorological conditions that led to historic Mongolian livestock mortality in 2010 (Taichi)

Disaster prevention and early warning system session (chair Kaoru Takara and Shigeko Haruyama)

17. LESSON LEARNT FROM THE TRAINING PROGRAMS ON POST DISASTER IMPACT ASSESSMENT AND FLOOD RISK IDENTIFICATION AND MANAGEMENT IN SRI LANKA (Rajib)
18. Spatial analysis and prediction of landslide hazards using spatial data mining (HSU)
19. Intensity-duration rainfall thresholds for the initiation of shallow landslide in Taiwan (Ching Fuang)
20. The Flood Forecasting Centre, Natural Hazard Partnership and the Hazard Centre; operational early warning and communication services in the UK (Piling)

Risk assessment and risk communication session (chair Sue-Ching Jou and Shigeko Haruyama)

21. The Role of Communal Resources in Hazard Risk Management and Post-Disaster Recovery (Neef)
22. School based community recovery in Toni District, Kamaishi, Japan (Matsuura)
23. Addressing the Underlying Risk of Embankment Failure During Cyclonic Catastrophes & It's Probable
24. Mitigation Measures: Case Study from Indian (DASGUPTA)
25. Building Climate Disaster Resilience for Education Sector in Urban Areas: A Case Study of Da Nang City, Central Viet Nam (Tong)
26. Risk assessment of the Mekong delta in the land use change (Haruyama)
27. Local Community Activities for Disaster Prevention and Mitigation - Lesson from East Japan Great Earthquake and Tsunami 2011 - (Takesawa)
28. Geomorphological land classification map of the lower Shonai River for flood risk assessment (Sayed)
29. The Natural Hazards of Myanmar: The Case of Tropical Cyclone Nargis (Kay)

Integrating climate change into urban resilience session (chair Yoshiki Yamagata and Shigeko Haruyama)

30. Integrating climate and disaster risk managements into the urban resilience (Yamagata)
31. Spatially explicit urban land-use model for managing climate risks (Saya)
32. Prediction of past land use using a spatial filtering approach (Yoshida)
33. Assessment of CO₂ emissions under land-use scenarios considering climate mitigation and flood risk adaptation in the Tokyo Metropolitan Area (Nakamichi)
34. Community-based Disaster Resilient Electricity Sharing System (Dress): Simulation case study in Yokohama (Yamagata)
35. Hedonic analysis of flooding risk in Tokyo using a spatial econometric model with endogenous explanatory variables (Seya)
36. Spatial Flooding Hazard Indices using Sensor Networks: Requirement Analysis for Flooding Risk Management (Hiroi)
37. A proposal of dynamic hazard map web application using real-time data by collected delay tolerant network in the disaster situation (Matsui)

Disaster risk and conflict session (chair Shigeko Haruyama, Shizuka Hashimoto and Sue-Ching Jou)

38. Roles of Geographic Clarification on Disaster Risk Reduction Technology Databases (Takeuchi)
39. Resilience through Religion: Faith-Based Organizations as Risk Communicators in Bandung, Indonesia (Mulyasari)

40. Risk assessment of water scarcity: Perspective from salinity, arsenic and drought impacts in southwestern part of Bangladesh(ABEDIN)
41. Youth Participation in Disaster Risk Reduction in Makati, Philippines: A Social Network Analysis(Fernadis)
42. Conventional partnership for future Disaster Recovery: Urban for rural and rural for urban(Srivastava)
43. Spatial Methodologies for the Analysis of Vulnerability in Urban Areas - A Case Study for Terrorism in Tokyo, Japan(Greger)
44. The 2011 Tohoku Tsunami: analyzing the evacuation of the survivors(Santos)
45. Surface and subterranean water interaction in catastrophic flood and mudflow for a river mountain basin: basic principles for risk assessment(Arakelian)
46. Implementation of Methods of Mathematical Morphology and Remote Sensing for Studying Thermokarst Processes and Risk Assessment(Kapralova)
47. Comparison of interpretation of geohazards using airborne and space images for monitoring of line structures (Orlov)
48. Some Geomorphic Changes in Ayeyarwady River: Planform Channel Dynamic of Lower Ayeyarwady River near Seiktha Area(Oo)
49. Tsunami numerical simulation at Fukushima Daiichi and Daini nuclear power plants due to the 2011 Tohoku Tsunami(Santos)
50. Hydrological Assessment of the Bago River Basin using Remote Sensing(Hlaing)
51. Intermediary Organizations and Knowledge Transfer in the Integrated Water(Jou)
52. Risk Map for Coastal Erosion in the Red River Delta, Vietnam(Murooka)
53. Flood Risk Assessment of Kumozu Fluvial Plain in Mie Prefecture, Japan(Matsumoto)
54. Tsunami preparedness of coastal municipalities of Japan faced with the risk (Hashimoto)

Climate-related risk and hazard in the 21st century session (Joint session with the Commission on Climatology) (chair Jun Matsumoto and Shigeo Haruyama)

55. Impact of river floods on human activity (Govorushko)
56. Evaluation of hail in the conditions of the Republic of Armenia(Margaryan)
57. Application of climate change projection for promoting a local agriculture and water management(Nishimori)
58. Post-disaster Recovery Needs of Households Affected by the 2012 Floods in Zamfara State, Niger(Laah)
59. Climate change and hazards in Central Asia: Risk patterns in Khorezm region of Uzbekistan and implications for Disaster Risk Reduction in rural areas(Aleksandrova)
60. ASSESSMENT OF CLIMATE CHANGE ASSOCIATED DISASTERS, ADAPTATIONS(renard)
61. Vulnerability-informed Adaptation? The Role of Vulnerability Assessments in the Development of Adaptation Strategies(Miller)

Vulnerability and resilience session(joint session with commission on land use and land cover change) (chair Teiji Watanabe)

62. The Tohoku Region Pacific Coast Earthquake/Tsunami of 2011 and Land Use(Himiyama)
63. Demographic, Forest and Nutritional Transitions: Impacts and Vulnerabilities(Lopez-Carr)
64. Migration flow analysis of bog systems for the task of arrangement of data-collecting network of environmental monitoring(Orlov)
65. Human Interference and Land use Change in the Peripheries of Wetlands in Assam, India: A Case Study (Sharma)

4. Future event

IGU Regional conference will be held in Poland and our commission prepares specific governance and climatic change adaptation related with natural disaster,2014.

IGU local organization conference of India will be held in India June 2014 with commission on hazard and risk.

5. Collaborative effort with other IGU Commissions

Collaboration session with IGU LUCC commission at Poland in Aug. 2014 IGU-RC

Collaboration session with IGU cold region commission at Poland in Aug.2014 IGU-RC.

6. List of Newsletters and other publications

- 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>
- 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 September 2013
 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

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

Publications:

[Coastal geomorphology and Vulnerability of Disaster Towards disaster risk reduction] Terrapub

publisher Edited by Shigeko Haruyama (IGU commission on Hazard and Risk) ,2013 September

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Hugo Capellà Mitermique
4. Soil Importance in a Threatened Island Ecosystem: Impact of the 2010 Chilean Tsunami on Biotic and Abiotic components
Ingo J Hahn
5. Tsunami 2004 and rapid land use change in Phuket, Thailand
Shigeko Haruyama and Kaori Hayashi
6. Coastal landform in the southern part of Miyagi Prefecture and 2011 Eastern Japan Mega Tsunami disaster Yuji Taresawa and
Shigeko Haruyama

Coastal disaster

7. Risk Assessment of Coastal Erosion in the Red River Delta, Vietnam
Mizue Murooka and Shigeko Haruyama
8. Flood disasters, tropical cyclones, gender blindness and disaster risk reduction and mitigation in Thua Thien Hue Province, Central Vietnam Doracie B. Zoleta-Nantes
9. GIS analysis for Tropical cyclones and coastal plain in Myanmar
Kay Thwe Hlaing, Mayumi Mattsumoto, Maung Maung Aye
10. Understanding natural hazards and social vulnerability in Brazilian urban rivers
Lutiane Queiroz de ALMEIDA