



First Meeting of the Expert Group on Disaster-related Statistics in Asia and the Pacific

27 – 29 October 2014, Sendai, Japan

Summary Report

- The first meeting of the ESCAP Expert Group on Disaster-related Statistics in Asia and the Pacific was held jointly by ESCAP and Tohoku University with the support of UNDP in Sendai, Japan from 27 to 29 October 2014, to: a) agree on the scope of a basic range of disaster-related statistics, b) discuss principles and criteria for defining and classifying disaster events as well as human and socio-economic impacts, and c) develop the work plan for the Expert Group. See Annex 1 for the meeting agenda.
- 2. Attended by members of the Expert Group, experts from regional and international institutions, as well as researchers from Tohoku University, Japan (See Annex 2 for a list of participants), the Meeting elected its Chairs and Vice-Chairs as the follows:
 - a) Chair: Ms. Hae Ryun KIM, Deputy Director, Research Planning Division, Statistical Research Institutes, Statistics Korea, Republic of Korea
 - b) Vice-Chair: Mr. Agus WIBOWO, Head, Data Division, National Agency for Disaster Ma nagement (BNPB), Indonesia and
 - c) Vice-Chair/Rapporteur: Mr. Yuichi ONO, Ast. Director and Professor, International Research Institute of Disaster Science (IRIDeS), Tohoku University, Japan,

Scope of a basic range of disaster-related statistics

- 3. The Expert Group:
 - a) Confirmed that a basic range of disaster-related statistics, accompanied by agreed definitions and classifications as well as guidelines for data collection and dissemination will help member States improve the reporting and recording of disaster occurrence and impacts at local and national level; will facilitate risk communication in and between the different stages of disaster risk management, between national and local governments, and among technical ministries; and will inform policies and programmes on disaster risk reduction and management at national, regional and international levels;
 - b) Recognized that local and national government authorities make decisions to address various issues and challenges at the different stages of disaster risk management, which require comprehensive information on hazards, vulnerability, and exposure. Recognized also that lack of agreed statistical definitions and classifications and capacity constraints at national and local levels pose serious hindrances to many countries in the Asia-Pacific region in collecting, compiling and comparing even the most basic statistics on disaster occurrence and impacts within countries and across national boundaries;

- c) Appreciated the ongoing efforts of UNDP in leading other entities to build strong linkages between disaster risk reduction and other key agenda including poverty reduction in the deliberations of the Sustainable Development Goals, targets and indicators, and recognized the importance of aligning efforts in the disaster – related statistics with that process;
- d) Acknowledged the process in developing global goals and targets in a Post-2015 Framework for Disaster Risk Reduction facilitated by the UNISDR and agreed to reflect the outcomes of the third UN World Conference on DRR into the development of a basic range of disaster-related statistics in Asia and Pacific.
- e) Emphasized the importance of contributing to the efforts of UNISDR to implement the Post-2015 Framework for Disaster Risk Reduction through the introduction of Asia Pacific regional standards on disaster-related statistics to support better monitoring of its progress.
- f) Discussed the added-values of regional standards on disaster related statistics in providing member States the reference to establish a basic range of statistics as the foundation to measure the indicators associated with the above goals and targets in a more systematic and consistent manner.
- g) Emphasized the need, at the moment, to focus on improving key and minimum set of statistics at the onset of disasters and noted that other important disaster-related statistics could be taken as an extended set of statistics for further consideration. To the extent possible, there is also the need to establish alignment with the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts
- h) Agreed that the development of a basic range of disaster-related statistics should be guided by national policy priorities, taking into account regional and international frameworks in particular the relevant goals and targets of the Open Working Group on Sustainable Development Goals as well as the Post-2015 Framework for Disaster Risk Reduction; and agreed that the core of the basic range of disaster-related statistics, as a matter of priority, is to comprise (i) disaster occurrence and (ii) direct and immediate impacts of disasters.

Principles and criteria for defining and classifying disaster events and their impacts

- 4. The Expert Group:
 - a) Acknowledged the efforts of national, regional, and global level organizations in collecting disaster-related statistics for disaster response, risk reduction and broader development; and recognized different country practices in disaster data collection, management and dissemination. In this regard, noted UNDP's accumulated experience in supporting national disaster loss and damage databases in 57 countries and emphasized that efforts to establish a basic range of disaster-related statistics for Asia and the Pacific should build on existing practices and experiences as they have been adopted by countries;
 - b) Reviewed existing definitions of disasters as well as other relevant initiatives and studies as strategic departure points for the development of a regional classification.

- c) Identified key characteristics of disaster occurrences (e.g. number of deaths, number of affected people and declaration of disasters by government) as practiced by national and, as appropriate local, governments for recording disasters to be further examined to establish an appropriate and operational definition as part of a regional standard;
- d) Decided to complement the existing materials with more information on country practices on disaster definitions, classifications and data collection and reporting in order to ensure the accommodation of the broadest possible types of disasters that occur in the Asia-Pacific region in a regional standard.
- e) Reviewed recent developments in the field of disaster damage and losses recording and accounting as institutionalized in countries, and considered those as primary resources for further examination and use by the Expert Group to develop standards for statistics on disasters' immediate impacts. Noted that a table of disasters and their specific characteristics need to be further developed in order to develop user-friendly measurements. Noted also, to maintain flexibility to ensure that future implementation is open to the possibility of a broader spectrum of tools linked to formal and non-formal information generation mechanisms.
- f) Decided to examine available resources to assess their suitability to the Asia and Pacific context and to further discuss statistics on direct and immediate impacts of disasters: (i) impacts to lives or so called "affected population": mortality, injury, missing and displaced populations and their disaggregation by age and sex, and (ii) impacts to livelihoods: infrastructure, housing, critical facilities and services, production factors and appropriate valuation methods.

Work plan of the Expert Group

The Expert Group will follow-up on the recommendations from its first meeting with online thematic review and discussion on a draft basic range of disaster-related statistics.

Date and venue	Event/Activity	Purpose/expected result	Remarks
Bangkok, 9 – 10 December 2014.	Presentation of initial EG results to an expert group meeting on statistics and data for the post- 2015 development agenda	Inputs and guidance to build synergy with work on other domains of statistics	To be presented by the Chair of the EG
<u>Sendai, Japan, 14 – 18</u> <u>March 2015</u>	2 nd meeting of the EG, organized as a side-event to the 3rd UN WCDRR	Recognition among global leaders of DRR of Asia Pacific's regional efforts to establish a basic range of disaster relates statistics Review by the EG of a first draft of proposed basic range of disaster statistics	Draft proposed basic range of disaster-related statistics will be consulted through online platform. The EGM will also provide inputs to multi-stakeholders segment on Applying Science and Technology to Disaster Risk Reduction Decision-Making

The Expert Group noted several events as opportunities for getting inputs and/or publicizing its work.

Bangkok, 25 – 27 March 2015	Report to ESCAP Committee on Statistics	Inputs and guidance by the ESCAP Committee on Statistics focusing on draft basic range of disaster-related statistics	
Bangkok, May 2015	Report to the ESCAP Commission at its 71 st session	Interim recommendations by the Commission on the future work of the EG	Report by the Committee on Statistics
Bangkok, September 2015	Report to ESCAP Committee on Disaster Risk Reduction	Inputs and guidance by the ESCAP Committee on Disaster Risk Reduction on the work of the EG	Expanded presentation to include draft implementing guidelines
Bangkok, May 2016	Report to the ESCAP Commission at its 72nd session	Endorsement of the basic range of disaster related statistics by the ESCAP Commission	

Immediate follow up leading to the 2nd Meeting of the Expert Group in Sendai, Japan, March 2015:

- Compilation of the Expert Group's meeting report.
- Presentation of the work of the Expert Group to the expert group meeting on statistics and data for the post-2015 development agenda (December 2014).
- Stocktaking of country practices to complement the currently available information on the range of statistics, types of statistics, definitions and classifications, data collection and reporting, etc.
- Preparation of a draft basic range of disaster-related statistics for review and discussion by the Expert Group.

ANNEX-1 Programme

Programme	
Day 1	
09:00 - 10:00	 Opening session Opening: Mr. Kilaparti Ramakrishna, Director SRO ENEA, ESCAP Messages, Dr. Lisa Grace Bersales, Chair, ESCAP Committee on Statistics Welcoming Remarks: Prof. Susumu Satomi, President, Tohoku University Election of Chair and Vice-chair(s) of the Expert Group Acceptance speech by the elected Chair Group photo session Interaction with the Media
10:00 - 10:15	Coffee Break
10:15 - 11:30	Session 1 : Introduction and expectations Expected results: participants are aware of the background and functions of the Expert Group as stipulated in the Terms of Reference. Moderator: Chair of the Expert Group • Overview of TOR, Mr. Puji Pujiono, ESCAP (5 minutes) Participants' introduction, covering the following topics: (1h10) - Expectation to the work of the Expert Group (ambition level, key issues, main challenges)
	 Personal contribution (experience and areas of expertise) <u>References:</u> I) ESCAP Resolution 70/2 TOR, Expert Group on Disaster-Related Statistics
11:30 - 12:30	Lunch
12:30 - 13:30	Session 2: Setting the stage Expected results: participants understand the broader imperatives for developing a basic range of disaster-related statistics, particularly in Asia and the Pacific, given the impending adoption of the HFA-2, and in the context of SDG monitoring. Moderator: Mr. Kilaparti Ramakrishna, ESCAP Presentations:
	 Strengthening the evidence-based policymaking and decision making in DRR in the context of SDGs – Mr. Puji Pujiono, ESCAP The need for better disaster statistics – Prof. Yuichi Ono, IRIDeS, Tohoku University. Lessons learnt from supporting national disaster losses databases: gaps, challenges and need for standards – Mr. Sanny Jegillos, UNDP Regional Centre, Bangkok The use of disaster risk data to guide public investment – Mr. Sujit Mohanty,
	 UNISDR ROAP Bangkok Q&A Key questions: Why are disaster-related statistics needed in the Asian-Pacific region? How will disaster-related statistics relate to post-2015 sustainable development goals including HFA2? What similar processes are going on at the regional and global level? <u>References:</u> Background Paper 1: Motivation for Establishing a Basic Range of Disaster-Related Statistics Summary Outcomes of Previous Expert Group Meetings

13:30 - 14:45	Session 3: Framework for establishing a basic range of disaster-related statistics	
	Expected results: participants agree on the conceptual framework for developing a basic	
	range of disaster-related statistics.	
	Moderator: Prof. Yuichi Ono, IRIDeS, Tohoku University	
	Presentations	
	• Defining the scope of a basic range of disaster-related statistics: Conceptual	
	framework – Mr. Puji Pujiono, ESCAP	
	• Development of statistical standards – Mr. Yanhong Zhang, ESCAP	
	Q&A Kay guardiana	
	Key questions: - In which phase of disaster risk management are disaster-related statistics found to be	
	most feasible?	
	- Who makes what decisions during which phase and to do so require which data?	
	- What are the crucial processes in establishing standards for disaster-related	
	statistics?	
	<u>References:</u>	
	1) Background paper 2: Conceptual Framework for a Basic Range of Disaster-Related	
	Statistics	
	2) Best Practice Guidelines for Developing International Statistical Classifications, Mr.	
	Andrew Hancock, Statistics New Zealand	
	3) The Role of International Standards for National Statistical Offices, Mr. Andrew	
	Hancock, Statistics New ZealandPrinciples and Framework for an International Classification of Crimes for Statistical	
	<i>Principles and Framework for an international Classification of Crimes for Statistical</i> <i>Purposes, UNODC</i>	
	5) 2009 UNESCO Framework for Cultural Statistics, UNESCO	
14.45 15.00		
14:45 - 15:00	Coffee Break	
15:00 - 16:30	Session 4: Country experiences	
	Expected results: participants gain appreciation on the specific issues to be addressed in	
	<u>developing a basic range of disaster – related statistics, e.g. complexity in resilience</u>	
	monitoring and the necessity for cross country comparison, from the perspectives of both statisticians and disaster risk management experts.	
	Moderator: Mr. Puji Pujiono, ESCAP	
	Presentation: Ongoing efforts to improve disaster-related statistics, and case studies on	
	current practices in Asia-Pacific countries – Ms. Monina G. Collado, ESCAP consultant	
	Panel Discussion: Country sharing	
	o Mr. Pema Thinley, ICT/GIS Officer, Department of Disaster Management,	
	Ministry of Home and Cultural Affairs, Bhutan	
	0 Mr. Poasa, Naimila, Acting Statistician-Demography, Fiji Bureau of	
	Statistics, Fiji Bureau of Statistics, Fiji	
	• Mr. Artavazd Davtyan, Deputy Head, Department of Rescue Forces, Rescue	
	Services, Ministry of Emergency Situations, Armenia	
	• Mr. Agus Wibowo, Head, Data Division, National Agency for Disaster	
	Management, BNPB, Indonesia • Ms. Hae Ryun Kim, Deputy Director, Research Planning Division, Statistical	
	Research Institutes, Statistics Korea,	
	Questions to panellists:	
	1. How do you define "disaster event" in your country? And what criteria do you use	
	to differentiate it from just hazard event?	
	2. Who are the disaster data "users" and who are the "suppliers" in your country?	
	3. How do you define the beginning and end of a disaster period?	
	4. How do you define and classify the "disaster-affected" population? And how do you	
	determine disaster-induced death or injury?	
	5. What types of material damage is covered in disaster impact assessments, and how	
1	do you estimate the monetised value of such impacts?	

16:30 - 16:45	Summary of Day 1 (Mr. Puji Pujiono, ESCAP)
Day 2	
09:00 - 10:15	 Keynote speech by the Government of Japan: Dr. Saturo Nishikawa, Vice-President, Japan Water Agency. Session 5: Definition and classification of disasters Expected results: participants agree on principles and criteria for establishing agreed definition of disaster occurrence and classification of disaster types Moderator: Dr. Lisa Grace Bersales, National Statistician, Philippines Statistics Authority, Chair of ESCAP Committee on Statistics Presentations: Classifying disaster events in EM-DAT – Dr. Debarati Guha Sapir, CRED Disaster classification in GLIDE – Mr. Arakida, Senior Researcher, ADRC Defining disaster occurrence for statistical purposes; analysis of existing disaster classifications – Mr. Teerapong Praphotjanaporn, ESCAP
10:15 - 10:30	Coffee Break
10:30 - 11:30	Session 5 (cont'd): Definition and classification of disasters Break-out group discussion Key questions for the groups: - What are the criteria for a "disaster occurrence"? - What are the major groupings of disaster types? - What are the classifications within those groups of disaster types?
11:30 - 12:30	Lunch
12:30 - 13:30	Session 5 (cont'd): Definition and classification of disastersPresentations from the groups and plenary discussion (1 hour)References:1) Background paper 4:Defining Disaster Occurrences for Statistical Purposes2) Background paper 5: Disaster Type Classifications
13:30 - 14:30	 Session 6: Disaster impact measurement Expected results: participants agree on principles for producing comparable measurements for assessing the impacts of disasters. Moderator: Mr. Yanhong Zhang, ESCAP Presentations:
14:30 - 14:45	Coffee Break
14:45 - 17.00	Session 6 (cont'd): Disaster impact measurement Break-out group discussion - How to define disaster impacts on the population? - How to define material damage from disasters? - How to monetize the impacts? Presentations from the groups and plenary discussion <i>References:</i> 1) Background paper 6:Disaster Impact Statistics 2) Recording Disaster Losses, JRC
17:00 - 17:15	Summary of Day 2 (Mr. Yanhong Zhang, ESCAP)

Day 3	
09:00 - 10:15	Session 7: Way forward and work plan Expected results: the Expert Group agrees on its work plan. Moderator: Chair of the Expert Group Presentation: Suggested elements of a work plan for the Expert Group Plenary discussion on • Work plan (future outputs, roles, schedule, etc.) • Communication strategies for the work of the group Key questions: • What are the expected activities and working arrangements of the Expert Group? • What are the immediate and longer-term deliverables? • What are the outlets for the work of the Expert Group? <i>References:</i> 1) Background paper 7: Outline Strategy for the Work of the Expert Group
10:15 - 10:30	Coffee Break
10:30 - 11:30	Session 8: Conclusions and recommendationsExpected results: the Expert Group agrees on the conclusions and recommendations from itsfirst meeting.Moderator: Chair of the Expert GroupPresentation: Draft conclusions and recommendations – ESCAP SecretariatWrap-up of the meeting by the Chair of the Expert Group
11:30 - 13:00	Lunch
13:00 -	Field Trip to Tsunami affected area and its recovery process
	End of the Meeting

ANNEX-2

LIST OF PARTICIPANTS

A. EXPERT GROUP MEMBERS MEMBER STATES

PRESENT IN THE MEETING

ARMENIA

Mr. Artavazd DAVTYAN, Deputy Head, Department of Rescue Forces, Rescue Services, Ministry of Emergency Situations, Republic of Armenia.

AZERBAIJAN

Mr. Rashad GASIMZADE, Chief Officer, International Cooperation Department, Ministry of the Emergency Situation.

BHUTAN

Mr. Pema THINLEY, ICT/GIS Officer, Department of Disaster Management, Ministry of Home and Cultural Affairs, Near Motithang BOD, PO Box: 1493, Thimphu, Bhutan.

FIJI

Mr. Poasa, NAIMILA, Acting Statistician-Demography, Fiji Bureau of Statistics, c/ -Fiji Bureau of Statistics, Box 2221, Government Buildings, Suva, Fiji.

INDONESIA

Mr. Agus WIBOWO, Head, Data Division, National Agency for Disaster Management (BNPB), BNPB Building (4th floor), Jl. Ir. H. Juanda No. 36 Jakarta, 10120, Indonesia.

JAPAN

Mr. Yuichi ONO, Assistant Director and Professor, International Research Institute of Disaster Science (IRIDeS), Tohoku University, Aoba 6-6-70-102, Aramaki, Aoba-ku, Sendai 980-8579, Japan.

MONGOLIA

Ms. Ariunaa CHADRAABAL, Lieutenant Colonel, Senior Specialist, Strategic Policy and Planning Division, National Emergency Management Agency (NEMA), Partizan's street, Sukhbaatar district, Ulaanbaatar 210644, Mongolia.

MYANMAR

Mr. San MYINT, Acting Director General, Central Statistical Organization, Ministry of National Planning and Economic Development, Building (32), Nay Pyi Taw, Myanmar.

REPUBLIC OF KOREA

Ms. Hae Ryun KIM, Deputy Director, Research Planning Division, Statistical Research Institutes, Statistics Korea, Statistical Centre (8th floor), 713 Hanbatdaero, Seo-gu, Daejeon, 302-280, Republic of Korea.

SRI LANKA

Mr. W.P.S. SISILARATHNA, Statistician, Department of Census and Statistics, P.O.Box 563, Colombo, Sri Lanka.

UNABLE TO ATTEND

ISLAMIC REPUBLIC OF IRAN

Ms. Sahar Sahebi ARAGHI, , Head of Group for Energy Statistics, Office of Manufacturing, Mining and Infrastructural Statistics, Statistical Centre of Iran, Dr. Fatemi Ave., Tehran, Iran.

NEW ZEALAND

Mr. Ian NEWMAN, (not participating) Senior Analyst, Standards and Design Unit, Architecture, Design and Programme Governance, Statistics New Zealand, Dollan House, 401 Madras Street, Private Bag 4741, Christchurch 8140, New Zealand.

PHILIPPINES

Mr. Relan Jay ASUNCION, Officer-in-charge, National Disaster Risk Reduction and Management Council (NDRRMC) Operations Center, Office of Civil Defense, Camp General Emilio Aguinaldo, Quezon City, Philippines.

VANUATU

Mr. Peter KORISA, Operation Manager, National Disaster Management Office, Private Mail Bag 9014, Port Vila, Vanuatu.

SPECIALISED INSTITUTIONS

Mr. Rajesh SHARMA, Programme Specialist, UNDP Bangkok Regional Hub, 3F, UN Service Building, Rajdamnern Nok Avenue, Bangkok 10200, Thailand.

Mr. Choiril MAKSUM, Lecturer, School of Management, Trisakti and Panca Sila University, Jakarta; Former Director General, National Statistics Agency of Indonesia, STIS, JI. Otista no. 64 C, Jakarta Timur, Jakarta, Indonesia.

Mr. Jean-Louis WEBER, Scientific Committee, European Environment Agency, Frankrigshusene 9, 2300 Copenhagen S, Demark.

UNABLE TO ATTEND

Ms. Susan L. CUTTER, , Distinguished Professor and Director of the Hazard Research Lab, Department of Geography, University of South Carolina; Member, Executive Committee of the Beijing-based Integrated Research on Disaster Risks (IRDR), Callcott Building, 709 Bull Street, Colombia, SC 29208 United States.

Ms. Eszter HORVATH, Chief, Environment and Energy Statistics Branch, United Nations Statistics Division, ADRESS: 2 UN Plaza, DC2-1418, N.Y. 10017 New York, United States of America.

B. OTHER PARTICIPANTS

Mr. Masafumi NAGAISHI, Senior Advisor to the Director General, Global Environmental Department, Japan International Cooperation Agency (JICA), Nibancho Center Building, 5-25 Niban-cho, Chiyoda-ku, Tokyo, 102-8012 Japan.

Mr. Satoru NISHIKAWA, Vice-President, Japan Water Agency, 11-2, Shintoshin, Chuo-ku, Saitama, 330-6008 Japan.

Mr. M. ARAKIDA, Senior Researcher, Asian Disaster Reduction Center (ADRC), 1-5-2 Wakinohamakaigan-dori, Chuo-ku, Kobe, 651-0073 Japan.

UNITED NATIONS BODIES,

REGIONAL AND INTERGOVERNMENTAL INSTITUTIONS

Dr. Lisa Grace BERSALES, National Statistician, Philippines Statistics Authority, Chair, Bureau of ESCAP Committee on Statistics, 3rd Floor, CVEA Building, East Venue, Quezon City 1101, Philippines.

Ms. Paula Monina G. COLLADO, Deputy Administrator, P.O.Box 779, Manila, Philippines.

Mr. Sujit Kumar MOHANTY, Programme Officer, UNISDR Asia Pacific, 8th Floor, United Nations Building, Rajdamnern Nok Avenue Bangkok, 10200, Thailand.

Mr. Sanny Ramos JEGILLOS, Regional Practice Coordinator, Crisis Prevention and Recovery, UNDP Bangkok Regional Hub, 3F, UN Service Building, Rajdamnern Nok Avenue, Bangkok 10200, Thailand

Mr. Ridwan YUNUS, Information Management Officer, UNDP Indonesia.

Ms. Debarati GUHA-SAPIR, Director, Centre for Research on the Epidemiology of Disasters (CRED); Professor, University of Louvain School of Public Health, Clos Chapelle-aux-Champs, Bte B1.30.15, 1200 Brussels, Belgium.

Mr. Daniele EHRLICH, Senior Scientist, European Commission – Joint Research Centre, Via Enrico Fermi 2749, I-21027 Ispra (VA), Italy.

Mr. Jack CAMPBELL, Disaster Risk Specialist, World Bank (Tokyo Office), 10F, Fukoku Seimei Building, 2-2-2 Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-0011 Japan.

Ms. Anggraini DEWI, Asia Disaster Preparedness Center (ADPC), 979/69 24th Fl Paholyothin Rd., Phayathai, Bangkok 10400 Thailand

Mr. Mohammad Ahsan UDDIN, Assistant Professor, Department of Statistics, Biostatistics and Informatics, University of Dhaka, Dhaka 1000, Bangladesh

Mr. Rudiger KLEIN, Excutive Director, Integrated Research on Disaster Risk (IRDR), Room B713, No 9 Dengzhuangnan Lu, Haidian District, Beijing, China 100094

Mr. Stephan HUPPERTZ'S, , Regional Coordinator Asia - Global Initiative DRM at Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), United Nations Building (8F), Rajadamnern Nok Avenue, Bangkok 10200, Thailand

UNABLE TO ATTEND

Ms. Fathimath THASHNEEM, Deputy Minister of Defence and Security, the Maldives, Chair of ESCAP Committee on Disaster Risk Reduction, G.Rihijehi koshi. Ameenee Magu, Male', Maldives

Mr. Greg SCOTT, Global Geospatial Information Management, United Nations Statistics Division, ADRESS: 2 UN Plaza, DC2-1418, N.Y. 10017 New York, United States of America

Mr. Joern BIRKMANN, Head of the Vulnerability Assessment, Risk Management and Adaptive Planning Section, UN University Institute for Environment and Human Security, UN Campus, Herman-Ehlers-Str. 10, 53113 Bonn, Germany

C. HOST AND ORGANIZER

TOHOKU UNIVERSITY

Mr. Susumu SATOMI, President, Tohoku University, 2-1-1, Katahira, Aoba-ku, Sendai 980-8577, Japan

Mr. Nobuyoshi HARA, Executive Vice President (for Earthquake Disaster Reconstruction), Tohoku University, 2-2-1, Katahira, Aoba-ku, Sendai 980-8577, Japan

International Research Institute of Disaster Science (IRIDeS), Tohoku University, 468-1-E305, Aramaki, Aoba-ku, Sendai 980-0845, Japan:

- Mr. Fumihiko IMAMURA, Director and Professor, Tsunami Engineering,
- Mr. Hiroaki MARUYA, Professor, Social Systems for Disaster Mitigation, Human and Social Response Research Division
- Mr. Reid BASHER, Visiting Professor
- Ms. Takako IZUMI, Managing Associate Professor, Office of the President (Promotion of

International Disaster Science), International and Regional Cooperation Office, Disaster Information Management and Public Collaboration Division

- Mr. Anawat SUPPASRI, Associate Professor, Earthquake Induced Tsunami Risk Evaluation (Tokyo Marine), Endowed Research Division
- Ms. Carine J. YI, Assistant Professor, International Strategy for Disaster Mitigation, Regional and Urban Reconstruction Research Division
- Mr. Yo FUKUTANI, Research Associate, Earthquake Induced Tsunami Risk Evaluation (Tokyo Marine), Endowed Research Division
- Mr. Masaaki MIYAMOTO, Researcher, Office for the UN World Conference on Disaster Risk Reduction

ESCAP

Mr. Kilaparti RAMAKRISHNA, Director, ESCAP East and North-East Asia Office (UNESCAP-ENEA), 7th Fl. G-Tower, 24-4 Songdo-dong, Yeonsu-gu, Incheon 406-840, Republic of Korea.

Mr. Puji PUJIONO, Regional Advisor, Disaster Risk Reduction Section, UNESCAP, The United Nations Building, Rajadamnern Nok Avenue, Bangkok 10200, Thailand.

Mr. Yanhong ZHANG, Officer-in-Charge, a.i., Population and Social Statistics Section, Statistics Division, UNESCAP, The United Nations Building, Rajadamnern Nok Avenue, Bangkok 10200, Thailand.

Ms. Yejin HA, Economic Affairs Officer, ESCAP East and North-East Asia Office (UNESCAP-ENEA), 7th Fl. G-Tower, 24-4 Songdo-dong, Yeonsu-gu, Incheon 406-840, Republic of Korea.

Mr. Teerapong PRAPHOTJANAPORN, Research Assistant, Statistics Division, UNESCAP, The United Nations Building, Rajadamnern Nok Avenue, Bangkok 10200, Thailand.