

# 4<sup>th</sup> Annual International Workshop & Expo on Sumatra Tsunami Disaster & Recovery (AIWEST-DR 2009)

Hermes Palace Hotel, Banda Aceh, Indonesia

Monday, November 23

08.00 – 09.00	Registration
09.00 – 09.30	<p>Welcome Remarks:</p> <ul style="list-style-type: none"> <li>▪ Dr. Khairul Munadi (Chair of Organizing Committee)</li> <li>▪ Prof. Dr. Yasuo Tanaka (Kobe University, Japan)</li> <li>▪ Dr. Idwan Suhardi (Deputy, State Minister for Research and Technology, Republic of Indonesia)</li> <li>▪ Prof. Dr. Darni M. Daud, MA (Rector of Syiah Kuala University, Indonesia)</li> <li>▪ Irwandi Yusuf (Governor of Aceh, Indonesia)</li> </ul>
09.30-10.00	<p style="text-align: center;"><b>Keynote Speech</b>  <b>“The Role of Media in Disaster Risk Reduction”</b>  by  <b>H.E. Dr. Orlando S. Mercado</b>  (Ambassador of The Republic of The Philippines to the ASEAN Secretariat)</p>
10.00 – 10.30	<p style="text-align: center;"><b>Special Lecture</b>  <b>“Disaster Management for Sustainable Well-Being”</b>  by  <b>Prof. Kuniyoshi Takeuchi</b>  Director of International Center for Water Hazards and Risk Management (ICHARM), Tsukuba, Japan)</p>
10.30 – 10.45	Coffee Break
<p><b>Panel Session 1:</b>  <b>“Post 2004 Tsunami Rehabilitation/ Reconstruction: Contribution of Academia”</b>  Moderator: Teuku Alvisyahrin, Ph.D.</p>	
10.45-12.00	Prof. Dr. Darni M. Daud, MA (Syiah Kuala University, Indonesia)
	Prof. Dr. Yasuo Tanaka (Kobe University, Japan)
	Prof. Dr. Shigeyoshi Tanaka (Nagoya University, Japan)
	Prof. Dr. Friedemann Wenzel (CEDIM, Karlsruhe, Germany)
	Prof. Dr. Akhmad Khairi Abd. Wahab (UTM, Malaysia)
12.00 – 13.30	Lunch Break

<b>Panel Session 2:</b> <b>“Post 2004 Tsunami Rehabilitation/ Reconstruction: The Affected Regional Government’s Experiences”</b> <b>Moderator: Dr. Ir. M. Dirhamsyah</b>	
13.30-14.30	Eddy Purwanto (Former BRR Official, Indonesia)
	Ir. Mawardi Nurdin, M. Eng. Sc (Mayor of Banda Aceh, Indonesia)
	Sampurnananda Mahapatra (National Disaster Management Authority, India)
	Murthala Mohamed Didi (National Disaster Management Centre, Republic of Maldives)
	Ravi Liyanage (Unawatuna Tourism Development Society, Sri Lanka)
<b>Panel Session 3:</b> <b>“Post 2004 Tsunami Rehabilitation/ Reconstruction: Role of Trans-governmental Organizations”</b> <b>Moderator: Dr. M. Ridha</b>	
14.30-15.45	Dr. Hari Srinivas (UNEP)
	Iwan Gunawan, Ph.D. (The World Bank)
	Agus Halim (FAO)
	Man B. Thapa (UNDP)
	Dr. Fouad Bendimerad (Earthquake and Megacities Initiatives)
15.45 – 16.00	Coffee Break
<b>Panel Session 4:</b> <b>“Post 2004 Tsunami Rehabilitation/ Reconstruction: Contribution of International, National and Local NGOs”</b> <b>Moderator: Dr. Khairul Munadi</b>	
16.00-17.00	Representative of American Red Cross
	Mahfuzur Rahman (Muslim Aid)
	Agung Notowiguno, SE (PKPU, Jakarta, Indonesia)
	Dr. Saiful Mahdi (Aceh Institute, Banda Aceh, Indonesia)
19.00-21.00	Welcome Dinner

# Technical Sessions

Tuesday, November 24, 2009

Time	Room			
	Aceh 1	Aceh 2	Medina 1	Medina 2
09:00-10:30	<b>TS 1A</b> 2004 Tsunami Impact / Recovery Activities	<b>TS 3A</b> Geotechnical & Hydrodynamical Modelling	<b>TS 4</b> Disaster Preparedness & Education	<b>TS 7A</b> Geohazard/ Risk Analysis/ Database Development
10:30-10:45	<i>Coffee Break</i>			
10:45-12:15	<b>TS 1B</b> 2004 Tsunami Impact / Recovery Activities	<b>TS 3B</b> Geotechnical & Hydrodynamical Modelling	<b>TS 5</b> Medical and Nursing in DRR	<b>TS 7B</b> Geohazard/ Risk Analysis/ Database Development
12:15-14:15	<i>Lunch Break</i>			
14:15-15:45	<b>TS 2A</b> Disaster Risk Management	<b>TS 3C</b> Geotechnical & Hydrodynamical Modelling	<b>TS 6</b> Environmental Management	<b>TS 8</b> Building Community's Resilience
15:45-16:30	<i>Coffee Break</i>			
16:30-18:00	<b>TS 2B</b> Disaster Risk Management	<b>TS 3D</b> Geotechnical & Hydrodynamical Modelling		

# List of Papers and Tracks

**Track TS 1A : 2004 Tsunami Impact / Recovery Activities**

**Room : Aceh 1**

**Time : 9.00-10.30**

**Track Chair : Eldina Fatimah**

**TS 1A-1 Impact of 2004 Tsunami in the Coastal agro ecosystem in India**

B. Shanmugasundaram (Kerala Agricultural University, India)

K. A. Ponnusamy (Tamil Nadu Agricultural University, India)

C. Karthikeyan (Tamil Nadu Agricultural University, India)

**TS 1A-2 Variation in minerals level in marine and land sides of Tsunami affected South Indian coastal areas and their impact on society**

J. Samu Solomon (Mount Zion College of Engineering & Technology)

**TS 1A-3 Helping Survivors Get Home- Lessons learned from a large volunteer cash based Tsunami Recovery response in Aceh**

Bill Marsden (Australian Red Cross)

**TS 1A-4 NGO And Donor Coordination To Speed Up Reconstruction And Avoid NGO Competition**

Arwin Soelaksono (Save the Children)

**TS 1A-5 Modeling Output-Price Relation in Post-Tsunami Recovery in Aceh**

Saiful Mahdi (Syiah Kuala University, Indonesia)

**TS 1A-6 Impact of Rehabilitation and Reconstruction on The Community's Economic Condition in Aceh**

Agussabti (Syiah Kuala University, Indonesia)

**Track TS 1B : 2004 Tsunami Impact / Recovery Activities**  
**Room : Aceh 1**  
**Time : 10.45-12.15**  
**Track Chair : Abdullah**

- TS 1B-1 **Long Term Strategy on Aceh Tsunami and Mitigation**  
M. Dirhamsyah (Syiah Kuala University, Indonesia)
- TS 1B-2 **Tsunami Responsive Architecture: Sustainability of the Houses and Inhabited Structures along the Coastal of Malaysia**  
Jestin Nordin (Victoria University of Wellington, New Zealand)  
Andrew Charleson (Victoria University of Wellington, New Zealand)
- TS 1B-3 **Transparant Logistic and Finance in Post-Tsunami Reconstruction Activities**  
Untung Pasaribu
- TS 1B-4 **Introduction of UNISDR & IRP activities on Disaster Recovery and Other Activities**  
Sanjaya Bhatia (UN-ISDR, Hyogo Office, Japan)
- TS 1B-5 **Community Participation in Post-Disaster Redevelopment**  
Ichsan (Public Policy Program, University of Arkansas, USA)
- TS 1B-6 **Approaches Adopted by Shelter Programs of Selected Red Cross Societies in Aceh to Link Relief, Recovery, and Development Phase**  
Wartini Pramana (Canadian Red Cross)  
P. Elliott (British Red Cross)

**Track TS 2A : Disaster Risk Management**

**Room : Aceh 1**

**Time : 14.15-15.45**

**Track Chair : Ichsan**

**TS 2A-1 Linking Disaster Risk Reduction and Climate Change Adaptation - the Experience from Indonesia**

Riyanti Djalantee (Macquarie University, Australia)

Frank Thomalla (Macquarie University, Australia)

**TS 2A-2 Disaster Risk Management Master Planning – A Risk Reduction Model for Megacities with Applications in Istanbul, Kathmandu and Metro Manila**

Friedemann Wenzel (Geophysical Institute, Karlsruhe University)

Fouad Bendimerad (Earthquakes and Megacities Initiative, Philippines)

Bijan Khazai (Geophysical Institute, Karlsruhe University, Germany)

**TS 2A-3 Institutional and Behavioural Dimensions of Disaster Risk Management – Comparative Perspectives**

Hans F. Illy (Freiburg University)

**TS 2A-4 Design of Ferrocement Jackets for Retrofitting Existing Reinforced Concrete Columns with Inadequate Shear Strength**

Abdullah (Syiah Kuala University, Indonesia)

K. Takiguchi (Tokyo Institute of Technology)

K. Nishimura (Tokyo Institute of Technology)

**TS 2A-5 Integrated Community Based Risk Reduction: An Approach to Building Disaster Resilient Communities**

Farid W. A (PMI-NAD, Indonesia)

Shesh Kanta Kafle (Canadian Red Cross)

**TS 2A-6 Rehabilitation and Reconstruction Infrastructure after Tsunami in Banda Aceh**

Sofyan Umar (Malaya University, Malaysia)

Khairul Yadi (International Islamic University Malaysia, Malaysia)

**Track TS 2B : Disaster Risk Management**

**Room : Aceh 1**

**Time : 16.30-17.45**

**Track Chair : Fahmi Zubir**

TS 2B-1 **Disaster Risk Reduction in Banda Aceh**  
Siswani Sari (Sabang Geospatial Data Center)

TS 2B-2 **A case for vulnerability modelling as a tool to evaluate initiatives to reduce the level of community vulnerability in Indonesia's disaster risk management**  
Adjie Pamungkas (ITS, Indonesia),  
Ruth Lane (RMIT University, Australia)  
David Mitchell (RMIT University, Australia)

TS 2B-3 **Make It Light: Lightweight Concrete as Construction Material**  
Abdullah (Syiah Kuala University, Indonesia)

TS 2B-4 **Model Kebijakan Mitigasi Bencana Alam Bagi Difabel (Studi Kasus di Kota Madya Yogyakarta)**  
Eka Septi Kurniawati (UIN Sunan Kalijaga, Yogyakarta, Indonesia)

TS 2B-5 **Integrating Micro Insurance in Disaster Risk Reduction: An adaptation to counter climate change on the poor**  
R. Devabalan (CARE, India)

**Track TS 3A : Geotechnical and Hydrodynamical Modelling**

**Room : Aceh 2**

**Time : 09:00 – 10:15**

**Track Chair : Didik Sugiyanto**

**TS 3A-1 Parameterization of Coastal Forest Vegetations and Hydraulic Resistance Coefficients for Tsunami Modelling**

Husrin Semeidi (Leichtweiss-Institute (LWI)-TU Braunschweig, Germany)

H. Oumeraci (Leichtweiss-Institute (LWI)-TU Braunschweig, Germany)

**TS 3A-2 Spatial Analysis of Salt Water Intrusion and Groundwater Vulnerability in Coastal Krueng Aceh Watershed Banda Aceh**

Ansye J. Sopacua (State University of New York)

**TS 3A-3 Transition to Turbulence Characteristics of Boundary Layers Flow and Sediment Transport under A Solitary Wave**

Suntoyo (ITS, Indonesia)

Hitoshi Tanaka (Tohoku University, Japan)

M. Zikra (ITS, Indonesia)

Sujantoko (ITS, Indonesia)

**TS 3A-4 Normalization of Tide Data in Determining Datum to Correct Bathymetry Data from GPS Sounder/Fish Finder Measurement**

Dwi Person (Syiah Kuala University, Indonesia)

Haikal Azief Haridhi (Syiah Kuala University, Indonesia)

Muhammad Aris (Syiah Kuala University, Indonesia)

**TS 3A-5 Experimental Verification of Rigid Plastic Method For Ultimate Bearing Capacity**

Asmaul Husna (Syiah Kuala University, Indonesia)

**Track TS 3B : Geotechnical and Hydrodynamical Modeling**  
**Room : Aceh 2**  
**Time : 10:45 – 11:45**  
**Track Chair : Syamsidik**

TS 3B-1 **Some Results of the modelling of the Andaman Sea and adjacent waters and possible investigations and educations on the coastal waters around Aceh in future**  
Peter E. Damm (University of Hamburg, Germany)

TS 3B-2 **Site specific ground shaking risk overview based on reflection seismic shear wave velocity investigations in the Krueng Aceh delta**  
Idawati Arsyad (Dinas Pertambangan dan Energi, Aceh, Indonesia)  
Ulrich Polom (Leibniz-Institute for Applied Geophysics, Hannover)  
Wiyono (Center for Environmental Geology, Bandung, Indonesia)

TS 3B-3 **Evaluation of ground acceleration using CPT data for liquefaction potential in sand deposit**  
Agus Setyo Muntohar (Muhammadiyah University Yokyakarta, Indonesia)

TS 3B-4 **Settlement Control in Foundation Construction using Wheel Method**  
Marwan (Syiah Kuala University, Indonesia)

**Track TS 3C : Geotechnical and Hydrodynamical Modeling**  
**Room : Aceh 2**  
**Time : 14:15 – 15:15**  
**Track Chair : Ella Melianda**

TS 3C-1 **Model Transformation of Wave Height using Wave Energy Dissipation**  
M. Zikra (ITS, Indonesia)  
Suntoyo (ITS, Indonesia)  
Sujantoko (ITS, Indonesia)

TS 3C-2 **Longterm Simulation of Indonesian Throughflow**  
Bernhard Mayer, Peter Damm, Thomas Pohlmann (University of Hamburg, Germany)  
Syamsul Rizal, Mulyadi A. Wahid (Syiah Kuala University, Indonesia)

TS 3C3 **A Numerical Analysis for Re-slides Type Landslide**  
Asmaul Husna (Syiah Kuala University, Indonesia)

TS 3C-4 **Probable Maximum Precipitation**  
G. Tetzlaff (Institute für Meteorologie, Germany)

**Track TS 3D : Geotechnical and Hydrodynamical Modeling**  
**Room : Aceh 2**  
**Time : 16.30-17.30**  
**Track Chair : Ella Melianda**

TS 3D-1 **Recent activities GPS monitoring for Post Seismic in Aceh and North Sumatra**  
Didik Sugiyanto (Syiah Kuala University, Indonesia)

TS 3D-2 **Remote Ocean Sensing for Current and Wave Mapping Application Focus; Disaster Warning Systems**  
Matthias Kniephonff (Germany)  
Thomas Helzel (Germany)

TS 3D-3 **Evaluation of Paddy Rice Cultivation Potentials Based on Social and Soil Fertility Attributes in 2004-Tsunami-Impacted Lhok Nga SubDistrict, Aceh Besar**  
Y. Amri (Syiah Kuala University, Indonesia)  
T. Alvisyahrin (Syiah Kuala University, Indonesia)  
Romano (Syiah Kuala University, Indonesia)

TS 3D-4 **Vulnerability of coastal morphology in a tectonically-active region: continuous vs intermittent forcing factors**  
Ella Melianda (Syiah Kuala University, Indonesia)

**Track TS4 : Disaster Preparedness & Education**  
**Room : Medina 1**  
**Time : 09:00 – 10:15**  
**Track Chair : Muhammad Ridha**

- TS 4-1 **Disaster Information Sharing with People with Disabilities Using Automatic Speech Recognition**  
Tetsuya Takiguchi (Kobe University, Japan)
- TS 4-2 **A Practical Framework for Improving Inter-organizational Collaboration**  
Jason Knapp, M. A (Universiti Sains Malaysia, Malaysia)
- TS 4-3 **Creating Early Disaster Awareness: Steps on Designing a Curriculum in Disaster Management for Syiah Kuala University Medical School, Aceh**  
Rosaria Indah (Syiah Kuala University, Indonesia)
- TS 4-4 **Implementation of disaster knowledge on the Elementary School Curriculum in Banda Aceh**  
Khairuddin (Syiah Kuala University, Indonesia)  
Fahmi (Syiah Kuala University, Indonesia)
- TS 4-5 **Measuring Household Evacuation Preparedness for People Centred Tsunami Early Warning – Case Study: City of Padang, Indonesia**  
Neysa Jacqueline Setiadi (United Nation University)  
Gebert (United Nation University)  
Anwar (Indonesian Institute of Science, Indonesia)  
Effendi (Andalas University)  
Birkmann (United Nation University)

**Track TS 5 : Disaster Medicine & Nursing/ Mental Health**  
**Room : Medina 1**  
**Time : 10:45 – 11:45**  
**Track Chair : Alvisyahrin**

- TS 5-1 **Nutrition and Hygiene Behavior in Benar Meriah and Aceh Tengah School Children**  
Emily Rand (Mercy Corps)
- TS 5-2 **Medical Service and Nursing in DRR**  
Zul Habibie (ASHO)
- TS 5-3 **Religiosity and Psychological Well-Being Of The Older Adults Of Tsunami Victims In Nanggroe Aceh Darussalam**  
Safrilsyah (IAIN Arraniry, Indonesia )
- TS 5-4 **Synergy Of The Humanitarian Works On Psychosocial And Mental Health Aspect In Disaster Response**  
Harla Sarra Octara (Jaring Kawan, Indonesia)

**Track TS 6 : Environmental Management**  
**Room : Medina 1**  
**Time : 14:15 – 15:45**  
**Track Chair : Fahmi Zubir**

- TS 6-1 **Tsunami-Mitigation Coastal Forest: Planning, Design and Its Application Constraints**  
Dinar Catur Istiyanto (ICHARM, Japan)  
Shigenobu Tanaka (ICHARM, Japan)  
Daisuke Kuribayashi (ICHARM, Japan)
- TS 6-2 **Annual Coastal Line Deformation After Tsunami Reconstruction Process in Banda Aceh, Indonesia**  
Syamsidik (Syiah Kuala University, Indonesia)  
Muzailin (Syiah Kuala University, Indonesia)
- TS 6-3 **Microgrids for Reliable, Clean and Efficient Power Delivery**  
Ramon Zamora (Mississippi State University, USA)  
Anurag K. Srivastava ((Mississippi State University, USA)  
Syukriyadin (Syiah Kuala University)
- TS 6-4 **Coastal Vegetation and Its Effect on Coastal Ecosystem Stability**  
Feri Suryawan (Syiah Kuala University, Indonesia)
- TS 6-5 **Application of MM5 Model in Sumatera Island for Weather Disaster and Environment Study**  
Risma Sunarty (Syiah Kuala University, Indonesia)  
Irwandi (Syiah Kuala University, Indonesia)
- TS 6-6 **Chromium Ion Removal by Aquatic Plant, Typha latifolia Cultivied from the Tsunami Affected Area (Preparation for application of heavy metal phytoremediation)**  
Suhendrayatna (Syiah Kuala University, Indonesia)  
Irhamni (Syiah Kuala University, Indonesia)  
Elvitriana (University of Serambi Mekkah, Indonesia)

**Track TS 7A : Geohazard/ Risk Analysis/ Database Development**  
**Room : Medina 2**  
**Time : 09:00 – 10:15**  
**Track Chair : Nizamuddin**

- TS 7A-1 **Essentials of Seismic Hazard Assessment – Methods and Applications**  
Vladimir Sokolov (Geophysical Institute of Karlsruhe University, Germany)  
Friedemann Wenzel (Geophysical Institute of Karlsruhe University, Germany)
- TS 7A-1 **Building Disaster Database in Indonesia: Data dan Informasi Bencana Indonesia (DIBI)**  
Ridwan Yunus (Crisis Prevention and Recovery Unit, UNDP Indonesia)
- TS 7A-2 **Rapid Disaster Risk Assessment of Coastal Communities: A Case Study of Mutiara Sub-Village, Banda Aceh, Indonesia**  
Shesh Kanta Kafle (Canadian Red Cross)
- TS 7A-3 **Risk Analysis of the Sidoarjo Mud Flow Disaster Surrounding the Mud Containment Cofferdam**  
I Putu Artama Wiguna (ITS Surabaya, Indonesia)  
Amien Widodo (ITS Surabaya, Indonesia)
- TS 7A-4 **Community based Bathymetric Mapping – The Acehese Panglima Laot**  
Crispen Wilson (Sumatra Konservasi Alam, Indonesia)
- TS 7A-5 **Design and Implementation of a Web-Based GIS for Sea Biota Monitoring in Sabang Sea Waters**  
Khairul Munadi (Syiah Kuala University, Indonesia)  
Fardhi Adria (Syiah Kuala University, Indonesia)  
Muhajir (Syiah Kuala University, Indonesia)

**Track TS 7B : Geohazard/ Risk Analysis/ Database Development**  
**Room : Medina 2**  
**Time : 10:45 – 12:15**  
**Track Chair : Rudi Kurniawan**

**TS 7B-1 Utilization of Web Map Services (WMS) and Web Feature Services (WFS) in developing Geo-hazard/Geo-risk Map in Aceh Provinces**

Nizamuddin (Syiah Kuala University, Indonesia)  
Hidehiro Ishizuka (Tsukuba University, Japan)  
Muzailin Affan (Syiah Kuala University, Indonesia)

**TS 7B-2 Design and Implementation of Aceh Tsunami Digital Repository**

Nasaruddin (Syiah Kuala University, Indonesia)  
Khairul Munadi (Syiah Kuala University, Indonesia)  
Syukriyadin (Syiah Kuala University, Indonesia)  
M. Dirhamsyah (Syiah Kuala University, Indonesia)

**TS 7B-3 SAHANACEH: An Open Source Based Emergency Response Management Information System for Aceh**

Khairul Munadi (Syiah Kuala University, Indonesia)  
Iwan Nusa Budi (Syiah Kuala University, Indonesia)  
Nur Izzaty (Syiah Kuala University, Indonesia)

**TS 7B-4 Developing Scenario Based on Seismic Hazard Assessment for Sumatera Island**

Irwandi (Syiah Kuala University, Indonesia)  
Amir Fauzi (Syiah Kuala University, Indonesia)  
Marwan (Syiah Kuala University, Indonesia)  
Nazli (Syiah Kuala University, Indonesia)

**TS 7B-5 Corrosion Risk Assessment of Existing Building after Five Years Stricken by Tsunami Aceh 2004**

M. Ridha (Syiah Kuala University, Indonesia)  
Syarizal Fonna (University Kebangsaan Malaysia, Malaysia)  
S. Huzni (Syiah Kuala University, Indonesia)  
A. K. Arifin (University Kebangsaan Malaysia, Malaysia)

**TS 7B-6 Seismic Hazard Analysis of Padang and Banda Aceh**

Rusnardi Rahmat Putra (Kyoto University, Japan)  
J. Kiyono (Kyoto University, Japan)  
Y. Ono (Kyoto University, Japan)  
H. R. Parajuli (Ritsumeikan University, Japan)

**Track TS 8 : Building Community's Resilience**  
**Room : Medina 2**  
**Time : 14:15 – 15:30**  
**Track Chair : Ahyoni**

- TS 8-1 **Building Resilience to Coastal Hazards: Lessons from Post-tsunami Efforts in the Indian Ocean**  
Frank Thomalla (Macquarie University, Australia)  
Rasmus Klocker Larsen (Stockholm Environment Institute (SEI), Sweden)  
Emma Calgareo (Asian Disaster Preparedness Centre (ADPC), Thailand)  
Atiq Ahmed (National Institute of Sciences (LIPI), Indonesia)  
Irina Rafliana (National Institute of Sciences (LIPI), Indonesia)
- TS 8-2 **Improving Communities Resilience in Facing Natural Calamities : Experiences from a community Based Disaster Preparedness Initiative**  
M. Sudharshan (CARE India)
- TS 8-3 **Building Disaster Resilience at the Grassroots Level: Lay Narratives and the Disaster Subculture**  
Makoto Takahashi, et al (Nagoya University, Japan)
- TS 8-4 **Children and Young People Leading Change in Building Local Resilience**  
Vanda Lengkong (Plan International Indonesia, Indonesia)
- TS 8-5 **Lifeline Performance – Padang Earthquake September 30, 2009**  
T. Alvisyahrin (Syiah Kuala University, Indonesia)