10th Aceh International Workshop and Expo on Sustainable Tsunami Disaster Recovery (AIWEST-DR 2016)

IOP Conference Series: Earth and Environmental Science Volume 56

Bada Aceh, Indonesia 22 – 24 November 2016

Editors:

Ella Meilianda Aiko Sakurai Elizabeth Maly Rina Suryani Oktar

ISBN: 978-1-5108-3712-6 ISSN: 1755-1307 Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2016) by the Institute of Physics All rights reserved. The material featured in this book is subject to IOP copyright protection, unless otherwise indicated.

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact the Institute of Physics at the address below.

Institute of Physics Dirac House, Temple Back Bristol BS1 6BE UK

Phone: 44 1 17 929 7481 Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA Phone: 845-758-0400 Fax: 845-758-2633 Email: curran@proceedings.com Web: www.proceedings.com

Table of contents

Volume 56

10th Aceh International Workshop and Expo on Sustainable Tsunami Disaster Recovery (AIWEST-DR 2016)

22-24 November 2016, Banda Aceh, Indonesia

Accepted papers received: 14 February 2017 Published online: 1 March 2017

Preface

011001 OPEN ACCESS 10th Aceh International Workshop and Expo on Sustainable Tsunami Disaster Recovery (AIWEST-DR 2016)

011002 OPEN ACCESS Peer review statement

Science and Technology in Disaster Management

012001 OPEN ACCESS Increasing tsunami risk awareness via mobile application

N Leelawat, A Suppasri, P Latcharote, F Imamura, Y Abe and K Sugiyasu....1

012002 OPEN ACCESS Analysis of tsunami disaster map by Geographic Information System (GIS): Aceh Singkil-Indonesia

A Farhan and H Akhyar.....13

012003 OPEN ACCESS Science-practice nexus for landslide surveying: technical training for local government units in Indonesia

A L Alam, S Hespiantoro, D Dyar, D Balzer, D Kuhn, J Torizin, M Fuchs, S Kastl and J Anhorn.....26

012004 OPEN ACCESS Green city Banda Aceh: city planning approach and environmental aspects

A A Arif.....35

012005 OPEN ACCESS Coulomb stress analysis of West Halmahera earthquake mw=7.2 to mount Soputan and Gamalama volcanic activities

G H D Sinaga, M Zarlis, M Sitepu, R A Prasetyo and A Simanullang.....44

012006 OPEN ACCESS Building vulnerability and human loss assessment in different earthquake intensity and time: a case study of the University of the Philippines, Los Baños (UPLB) Campus

I Rusydy, D V Faustino-Eslava, U Muksin, R Gallardo-Zafra, J J C Aguirre, N C Bantayan, L Alam and S Dakey.....51

012007 OPEN ACCESS Advantages of Realistic Model Based on computational method: NDSHA versus Standard PSHA

I Irwandi.....64

012008 OPEN ACCESS Simulation of surface heat fluxes of Typhoon Songda (Chedeng) 2011 using WRF-ARW model

Muhammad, R I Lestari, F Mulia, Y Ilhamsyah, Z Jalil and Rizwan.....73

012009 OPEN ACCESS Numerical simulations of land cover roughness influence on tsunami inundation in Ulee Lheue Bay, Aceh-Indonesia

Tursina and Syamsidik.....80

012010 OPEN ACCESS Lightning hazard region over the maritime continent observed from satellite and climate change threat

Y Ilhamsyah, Y Koesmaryono, R Hidayat, J Murjaya, I W Nurjaya and Rizwan.....90

012011 OPEN ACCESS Developing estimating equations of fatality ratio based on surveyed data of the 2011 Great East Japan Tsunami

P Latcharote, N Leelawat, A Suppasri and F Imamura.....99

012012 OPEN ACCESS A decade process of coastal land use changes in Peukan Bada-Aceh after the 2004 Indian Ocean Tsunami

M Fahmi, Syamsidik, E Fatimah and M Al'ala.....117

012013 OPEN ACCESS The behaviour of reinforced concrete structure due to earthquake load using Time History analysis Method

M Afifuddin, M A R Panjaitan and D Ayuna.....124

012014 OPEN ACCESS The pattern of spatial flood disaster region in DKI Jakarta

M P Tambunan.....132

012015 OPEN ACCESS Numerical simulations of tsunami waves impacts on Ulee Lheue Harbour in Banda Aceh-Indonesia

Fachrurrazi, Syamsidik, M Al'ala and W Mahardi.....143

012016 OPEN ACCESS Development of Web GIS for information of renewable energy in Aceh Province after rehabilitation and reconstruction process

Nizamuddin, Hizir, Ardiansyah, D Pertiwi and P Handayani.....154

012017 OPEN ACCESS Groundmagnetic survey used to identify the weathered zone, in Blang Bintang, Aceh, Indonesia

M Syukri, Marwan, R Safitri, Z Fadhli, F Andika and R Saad.....158

Disaster Risk Reduction Efforts in Disaster Affected Area

012018 OPEN ACCESS Indigenous knowledge management to enhance community resilience to tsunami risk: lessons learned from *Smong* traditions in Simeulue island, Indonesia

A Rahman, A Sakurai and K Munadi.....164

012019 OPEN ACCESS Assessment of post-tsunami disaster recovery of Banda Aceh city of Indonesia as window of opportunities for sustainable development

E Meilianda, K Munadi, Azmeri, Safrida, Y Direzkia, Syamsidik and R S Oktari....176

012020 OPEN ACCESS Disaster management curricula: strategy to create doctors with disaster resilience in Aceh, Indonesia

N Wahyuniati, R Maulana and I Ichsan.....186

012021 OPEN ACCESS Assessing school disaster preparedness by applying a comprehensive school safety framework: A case of elementary schools in Banda Aceh City

A Sakurai, M B F Bisri, T Oda, R S Oktari and Y Murayama.....193

012022 OPEN ACCESS Disaster risk reduction policies and regulations in Aceh after the 2004 Indian Ocean Tsunami

Syamsidik, I Rusydy, S Arief, K Munadi and E Melianda.....203

012023 OPEN ACCESS Inter-organizational network in Indonesia during disasters: Examples and research agenda on disaster management

M B F Bisri.....213

012024 OPEN ACCESS Disaster budgeting of Banda Aceh's local government: Trends and analysis of posttsunami Aceh 2004

R S Oktari, H Fahlevi and W Irawati.....225

012025 OPEN ACCESS Rethinking "Build Back Better" in housing reconstruction: A proposal for "People Centered Housing Recovery"

Elizabeth Maly.....234

012026 OPEN ACCESS <u>A conceptual framework for evaluating tsunami resilience</u>

Dinil Pushpalal.....241