



Udayana University



3 DAYS - INTENSIVE SHORT COURSE

Environmental Health in Disaster and Humanitarian Settings

WHEN: 20th to 22nd September, 2016

**VENUE: Udayana Campus
Medical Faculty, Denpasar,
Bali 80111 INDONESIA**

Delivered at Udayana University, Bali and sponsored by CESDI - Centre for Excellence for Sustainable Development for Indonesia at Griffith University, Brisbane - Nathan campus, Australia



Trainers are Members of NEHA - National Environmental Health Association, USA; EHA - Environmental Health Association Australia and the IEHSA - Indonesian Environmental Health and Safety Association.

Environmental Health in Disaster and Humanitarian Settings
Course Materials adapted from USA CDC and UNISDR GETI training modules...
and presented by Griffith University and its partners.



"Endorsed by IFEH"



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Chair of Training

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Training Committee Member:

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International Trainers:

Dr Peter Davey PhD FEHA
Director CESDI and Senior Lecturer,
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Registration Information:

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Introduction

During the last quarter century, more than 3.4 million lives have been lost due to disasters, with billions more affected, and tens of billions of dollars spent on repairing damage and reconstructing lives¹. Between 1980 and 2005, 90 per cent of the natural disasters, 72.5 per cent of casualties and 75 per cent of economic losses were caused by weather, climate and water related hazards such as droughts, floods, windstorms, tropical cyclones, storm surges, extreme temperatures, landslides and wild fires, or by health epidemics and insect infestations².

Good environmental health disaster and humanitarian management has a significant role in addressing the impact of disasters on environmental health infrastructure and consequently the public. This includes protecting and mitigating risks to systems required for general health and wellbeing, such as water supply, food safety, sewerage, waste management and stormwater³.

The preparedness and response actions to the environmental health aspects of disasters are vital in influencing the amount of human suffering, loss of life and ill-health. For example, over two years after the Indian Ocean tsunami caused massive devastation, people were living in temporary shelters and reconstruction projects were struggling to ensure that new housing had clean water supplies and good sanitation. At this time, diarrhoea was prevalent and there were a large number of vector-borne disease cases (dengue and malaria) in Indonesia's capital Aceh.⁴

As the world's population and density continues to increase, the risk disasters pose to environmental infrastructure and conditions will continue to rise. Furthermore, increased urbanisation and industrialisation place a greater proportion of the world community at risk with the majority of the population migrating to urban, disaster-prone areas that are often without an adequate level of environmental health protective infrastructure⁵.

About the Course

Environmental health, humanitarian and disaster professionals locally in Indonesia and from across Asia Pacific Region have a critical function in mitigating environmental health risks during a response to a disaster and humanitarian crisis. To address this need Griffith University and Udayana University presents the EH in Disaster and Humanitarian Settings Short Course Training, together with the Environmental Health and Safety Association Indonesia (EHSAI), USA Centers for Disease Control and Prevention (CDC) Trainers, UNISDR GETI Trainers and NEHA.

This course will identify disaster risk reduction (DRR) strategies under the UN Sendai DRD Framework and investigates the critical role your agency has in DRR, and mitigating environmental health risks from a disaster or during a humanitarian crisis. This includes the need to map risk in cities, conduct assessments to identify and address key risks such as those relating to drinking water, shelters, overcrowding, food safety, wastewater, disease-causing vectors, solid waste and hazardous materials. Many of these risks are within the existing roles of environmental health professionals, however, a disaster response and humanitarian crisis has unique challenges and a specific skill set is required from a range of professions and all levels of government.

The course recognises that environmental and public health practitioners/professionals and students are in the best position to assess and address the impact of disasters and humanitarian crisis due to their skill set and population-based focus. The content is guided by the successful Environmental Health Training in Emergency Response (EHTER) course run by CDC and UNISDR Training materials. Griffith University will provide the participants skills on how to apply environmental health in a disaster setting.

¹ Hogan D, Burstein J (2007). Basic Perspectives on Disaster. Lippincott Williams and Wilkins, Philadelphia.

² World Meteorological Organization. WMO Disaster Risk Reduction Programme. Accessed 23 February 2012; Available from: <http://www.wmo.int/pages/prog/drr/>

³ Commonwealth of Australia (2008). Report of the 6th National Conference - Sustaining Environmental Health in Indigenous Communities.

⁴ Chang, M. (2007) . Health and housing after the Indian Ocean tsunami. *Lancet*, 369(9579):2066–2068.

⁵ World Health Organization. Statistical Information System Page. Accessed 30 May 2011. Available at <http://www.who.int/whosis>



Objectives

- Demonstrate how environmental health infrastructure and practices are central to DRR and disaster management and humanitarian activities
- Provide an overview of key environmental health infrastructure/issues and how these can be affected after a disaster and during a humanitarian crisis
- Understand what should be considered to mitigate the environmental health risks
- Provide guidance on assessing, addressing and responding to environmental health impacts of a disaster and humanitarian crisis using a population focus

Course Structure

The course addresses the need for environmental health and other professionals to increase their education and training in disaster and humanitarian settings. This course concludes with a field trip and an exercise to apply the skills and knowledge attained during the course. A provisional program is at [Attachment A](#).

Course Content

The course includes the following topics:

1. Disaster and Humanitarian Crisis Management
 - Discuss plans, DRR systems, guidelines and programs that guide the role of environmental health during the disaster management cycle and a humanitarian crisis
 - Identify and discuss preparedness, response, recovery, and mitigation resources for environmental health
 - Outline the structures and parameters in which environmental health may function during a disaster or humanitarian crisis
 - Discuss environmental health preparedness and response systems
2. Drinking Water
 - Water issues faced in disasters and humanitarian crisis
 - The role of environmental health practitioners in addressing water issues
 - Identification of key response partners
 - Increase understanding of the basic components of drinking water systems
 - Practice and demonstrate basic skills related to water issues
 - sampling, treatment, assessment
3. Food Safety
 - Discuss food safety preparedness and response considerations
 - Operational considerations for mass feeding
 - Methods that may be used for assessing and mitigating food safety risks
 - Considerations for reopening food establishments
- Actions that environmental health professionals can take to promote food protection
4. Wastewater
 - Environmental health role in wastewater issues
 - Describe onsite (septic) and public sewer wastewater systems
 - Discuss system vulnerabilities, failures and recovery considerations
 - Identify alternative means of treating wastewater
 - Assessment and response to wastewater spills
 - Identify areas to improve wastewater preparedness
5. Solid Waste and Hazardous Materials
 - Discuss solid and hazardous waste issues
 - Identify key response partners
 - Increase understanding of solid and hazardous waste planning, collection and disposal
6. Vector Control
 - The impact of vectors disaster events
 - Control measures needed in disaster events
 - The role of environmental health in addressing vector control issues
 - Identification of key response partners
7. Shelters
 - Shelter types and their operations
 - The role of environmental health within shelters
 - Planning and operational considerations for shelters
 - Considerations and processes for conducting an environmental health shelter assessment
 - Identify key environmental health preparedness, response and recovery actions for shelters and interim housing
8. Building Assessments
 - Identify exterior and interior building components
 - Explain assessment preparation and process for buildings
 - Identify building-related health hazards
 - Exercise recovery and reoccupancy evaluations
 - Identify preventative actions to improve building resiliency
9. Responder Safety
 - Identify common hazards that may be encountered during a disaster or humanitarian crisis.
 - How disaster related hazards can affect your health
 - Health and safety precautions that should be taken during a response



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Target Audience

Environmental health specialists, professionals and students who plan to broaden their understanding of the role environmental health in disaster and humanitarian settings. Participants can be from the local, provisional, state, federal, international and private sectors.

The course is also relevant for health and disaster professionals who require further knowledge of environmental health in disaster management and humanitarian planning and response.

Registration Information

Local participant (Indonesia) please contact Herry Purnama Email: patjoel@yahoo.com

International participant please contact Dr Davey via E-mail: peter.davey@griffith.edu.au

Course Duration 3-days

Local Course Registration Cost

Local Indonesia Student Training Cost
Rp500,000 per person

Student Accommodation Cost - for those who want their accommodation arranged by Udayana University, please contact Herry Purnama via email.

Other Course Registration Cost

AUD\$100.00 for Australian and International students

AUD\$150 for EH and other Practitioners in low income countries (eg Indonesia, Africa)

AUD\$200 for EH and other Practitioners for medium income countries (eg Singapore, South Africa)

AUD\$300 for EH and other Practitioners in high income countries (eg UK, Australia, Europe and USA)

Registration includes Course Materials and Certificate of Completion. Tea and Coffee provided. There is a Course Dinner Cost AUD\$20.00

Griffith University will use the status of income for each country based on the index:
http://en.wikipedia.org/wiki/Human_Development_Index

Note - valid student ID card required.

Other Accommodation

International participants are recommended to book direct and stay at a Venue closeby. On by registering via Email to Peter Davey and accommodation options will be provided. Trainers stay at Furama Ocean Hotel (previously OCEN Hotel Seminyak, Bali) see <http://www.furamaxclusive.com/oceanbeach/>

For Further Information

Dr Peter Davey

**Director CESDI Centre of Excellence for Sustainable Development for Indonesia in Brisbane
Program Director and Senior Lecturer, Griffith University, Australia**

Hon Vice President, International Federation of Environmental Health

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or

CESDI OFFICE STAFF

Griffith University Brisbane

Mrs Rifeald Romauli (Uli)

Email: rifeald@gmail.com

Attachement A- Program

Course delivered in English with some translation if required)

Day 1

- 9.00am** *Welcome and Introductions*
University Short Course Pre-Test
Environmental Health (EH) in disaster and Humanitarian Settings
- 10.30am** *Break (tips on Indonesian Culture and Bahasa Language)*
- 11.00am** *Comparing Disaster Arrangements Australia and Indonesia (Case Study)*
Communicable and Chronic Disease and DRR
- 1.00pm** *Break*
- 1.30pm** *Drinking Water*
Wastewater
- 3.30pm** *Food safety*
- 4.30pm** *Close*

Day 2

- 9.00am** *UNISDR Resilient Cities - DRR Planning Exercise*
- 10.30am** *Break*
- 11.00am** *Vector Control*
- 1.00pm** *Break*
- 1.30pm** *Evacuation centres and shelters, tsunami warning devices*
“Field Trip to Emergency Centres”
- 5.00pm -**
8.30pm *Cultural Activity and Course Dinner - Venue to be advised.*

Day 3

- 9.00am** *Importance of Partnerships in DRR*
EH and Humanitarian Standards
- 10.30am** *Break*
- 11.00am** *Solid Waste and Hazardous Materials*
Building Assessments
Introduction to Disaster Group Exercise
- 1.00pm** *Break*
- 1:30pm** *Disaster Group Exercise continued*
Group Presentations
- 4.00pm** *University Short Course Post-Test*
Award Ceremony, Group Photo
- 4.30pm** *Close*

