

## Disaster Risk Assessments – Training and Tools

### Better understand, analyse and respond to risks from natural hazards such as floods, landslides, tropical cyclones and earthquakes.

Expertly done Disaster Risk Assessments (DRA) provide a critical foundation for managing disaster risk across a wide range of sectors.

For example, in land-use and urban planning sectors, robust analysis of flood risk drives investment in flood protection and can influence insurance pricing. Technologies such as digital hazard mapping, vulnerability assessment and exposure control can be used to carry out country-wide risk assessments, or estimate potential damages and casualties from natural catastrophes as part of civil contingency planning.

At the community level, an understanding of hazard events — whether through education, from living memory or oral and written histories — can inform and influence decisions on preparedness, including life-saving evacuation procedures and behaviours, with pre-determined safe havens and known location of important facilities.

#### **Ambiental's tailored training to improve critical decision-making and align teams**

With Ambiental's DRA training programs, you can quickly develop the background knowledge and expertise necessary for better understanding the hazards, and commissioning engineering and design projects which maximize return on investment.

Building on the DRM framework proposed in the Sendai report (World Bank 2012), the World Bank Group (WBG) supports Governments in creating and using risk assessments in five key areas of decision-making:

- 1) Risk Identification;
- 2) Risk Reduction;
- 3) Preparedness;
- 4) Financial Protection; and
- 5) Resilient Reconstruction.

Using Ambiental's tools and tailored training, your teams will be able to rapidly identify and quantify the highest risks from natural hazards



#### **WORLD CLASS TRAINING AND SUPPORT**

Our team of natural hazard and emergency response specialists has been brought together from the world's leading academic and research institutes such as Cambridge University, University College London, and the UK Meteorological Office. We will always be on hand to advise you on how to get the most from the training, data, and support to improve staff effectiveness and reduce project risk.

#### **DISASTER RISK ASSESSMENT – BE PREPARED**

Using Ambiental's tools and tailored training, your teams will be able to rapidly identify and quantify the highest risks from natural hazards, providing an evidence base to support critical decisions around key investments. This ultimately leads to reduced loss of life, and improved economic stability.

#### **FLEXIBLE LOCATIONS**

We are flexible and responsive, and provide DRA training in a country and at venues of your choosing. Or we can host training at our own offices in the UK, or at our partners' offices at several other locations within the UK and US.

## Example Course Outline

Session Title	Session Overview / Contents
Fundamental concepts and definitions used in Hazard and Risk Assessment	What is a disaster risk assessment and what are the components? What is hazard modelling for a risk assessment? What is risk modelling?
Hazard Overview – Flood Overview	Fluvial versus flash flood; urban flood versus coastal flood; when to use flood hazard or flood risk assessment. What is the link with flood early warning systems? How available datasets and project scale will drive the project.
Morning Break Networking	Morning Break Networking
Hazard Overview – Flash Flooding and Tropical Cyclones	Flash Flooding: hazards and risks, Tropical cyclones: wind versus storm surge, from global to local approaches; topography and bathymetry; the influence of local data; and assumptions in modelling make all the difference; climate change considerations in the assessment.
Hazard Overview – Earthquake and Building Vulnerability	From global to local approaches; the need to involve local scientists; the influence of local data; and why assumptions in modelling make all the difference. Overview of available geological and seismic data sets. How to define project time, budget, goal and objectives? How vulnerability fits into the equation.
Hazard Overview – Drought	Drought definitions, identifying type of drought to consider in the DRA process, potential approaches – historical, scenario or probabilistic etc. What about climate change considerations?  Utilising resources such as the Africa Groundwater Atlas and Literature Archive to identify available resources, and the risks to those resources from pollution and climate change
How to write Terms of Reference (ToR) and Request for Proposals (RFP) for DRA Related Projects	Reconciling time:cost:quality considerations. Appropriate levels of detail and scoping out the hazards that matter. What to look for in a consultant and how best to engage with them. The contractors view and how they find, assess and respond to RFPs and ToRs.
The Challenge of Localised, and Rare Disaster Events and Disaster Risk Assessments that Cover Multiple Hazards:	An outline of localised or rare events, such as landslides, coastal erosion, glacial lake outbursts, flash floods, tsunami and volcanic eruption, and approaches to multiple hazard risk assessment.
Clinic Session – Practical Application of DRA – Flooding Case Study	Regionalised case study followed by group discussion
Clinic Session – Practical Application of DRA – Identifying Geological Risk - Drought & Earthquake Case Study	Practical case study followed by group discussion
Final Plenary Discussions	Open Forum Q&A, Collation of key delegate learning points, agreed actions for taking forward learning

Ambiental has provided training for:



THE WORLD BANK



### KEY BENEFITS

- ✓ Reduced risk to people and property from natural hazards
- ✓ Improved economic stability
- ✓ Reduced costs and time associated with procuring and executing DRA projects
- ✓ Improved success in project delivery through greater accuracy and reliability in results, and higher confidence in findings and conclusions
- ✓ Improved staff retention, knowledge transfer and in-house expertise
- ✓ Access to new skills and technology

### DRA TRAINING AT A GLANCE

- Tailored training delivered in 0.5 day modules in-line with delegate availability
- Full training needs analysis (TNA) carried out to specify desired outcomes
- All natural hazards covered, including flood, drought, windstorm, landslide and earthquake
- World-wide coverage - courses delivered in-country, or at UK and US locations
- Train-the-trainer approaches, refresher courses, and on-going support offered.
- Web-based E-learning modules and delivery available

#### Training Duration and Frequency

- One day seminars to week-long training courses
- One-off; and quarterly 'refresher' courses

#### Accreditations

- ISO9001
- Continuing Professional Development (CPD) Points eligible

For more information, pricing and to commission a training needs analysis, please contact Dr. Justin Butler:

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