



Winter Newsletter 2016

This edition is celebrating success and thanking our users!

- MFAT to fund a Pacific Risk Tools project
- Thank you to all the version 1.0 testers and those who have participated in our research this past year
- Sharing learning internationally
- Using Apps for rapid asset data collection in Wellington

Thank you testers!

We would like to thank all of the fantastic people across New Zealand and overseas who have been testing version 1.0 and feeding back their valuable suggestions.

Thank you for your support and keep those suggestions coming in via the helpdesk and testers systems.

If you would like more information please feel free to contact the team via the RiskScape website.

For more information about being a RiskScape tester please visit our technical wiki: <https://wiki-riskscape.niwa.co.nz/index.php/QuickStart-V1.0.0>

Please contact the team if you are interested in RiskScape training, workshops or seminars.

RiskScape to the Pacific

"RiskScape will be tailored to support decision making in Samoa and Vanuatu"

The RiskScape team has started a new and exciting project that will tailor RiskScape for the Pacific Island countries of Samoa and Vanuatu. The project

called PARTneR will enable Pacific government ministries and stakeholder organisations to effectively create and apply natural hazard risk information in social and economic development decisions.

This project not only provides an opportunity to share and apply New Zealand's cutting edge Disaster Risk Reduction tools in the Pacific, but also achieves the project goal to improve socio-economic resilience of Pacific Island countries through sound disaster risk management.

PARTneR will be managed by NIWA working in collaboration with the National Disaster Management Office (NDMO) of Samoa, the National Disaster Management Office (NDMO) of Vanuatu and Vanuatu Meteorology and Geo-Hazards Department (VMGD), SPC-Geosciences Division, and GNS Science.

For more information about the PARTneR project please contact Dr Kate Crowley: kate.crowley@niwa.co.nz

Training update... The RiskScape team has been busy supporting the preparations for Exercise Tangaroa, the national emergency management exercise taking place in August 2016. We have been out and about sharing our tsunami research through various workshops and trainings such as the recent Tsunami Short Course organised by GNS Science and Wellington Region Management Emergency Office (WREMO) and the Emergency Management training course for health professionals in Wellington in June 2016. For more information:

<http://www.civildefence.govt.nz/cdem-sector/exercises/exercisetangaroa2016/>



Emergency management user engagement

From late 2015 until June 2016 a collaborative research team from NIWA, GNS Science and Massey University met with council staff across New Zealand to better understand the needs of the New Zealand Civil Defence and Emergency Management (CDEM) sector within local government for natural hazard risk modelling.

The research team was able to develop some key recommendations for the future development of the RiskScape tool and programme. These included: Expert elicited vulnerability function development with users specifically addressing damage to infrastructure; connecting RiskScape results to council operated tools and databases; targeted engagement with existing forums and committees; targeted trainings that aim to embed RiskScape within the broader risk assessment user needs; customised templates for reporting RiskScape results, and understanding uncertainty across the risk assessment process. The research report will be circulated to those who participated



in this research. **The RiskScape team would like to thank those who contributed towards this research.** If you would like further information about this research please contact: Dr Kate Crowley, kate.crowley@niwa.co.nz. This research was carried out with PhD candidate Miles Crawford at the Joint Centre for Disaster Research, Massey University.



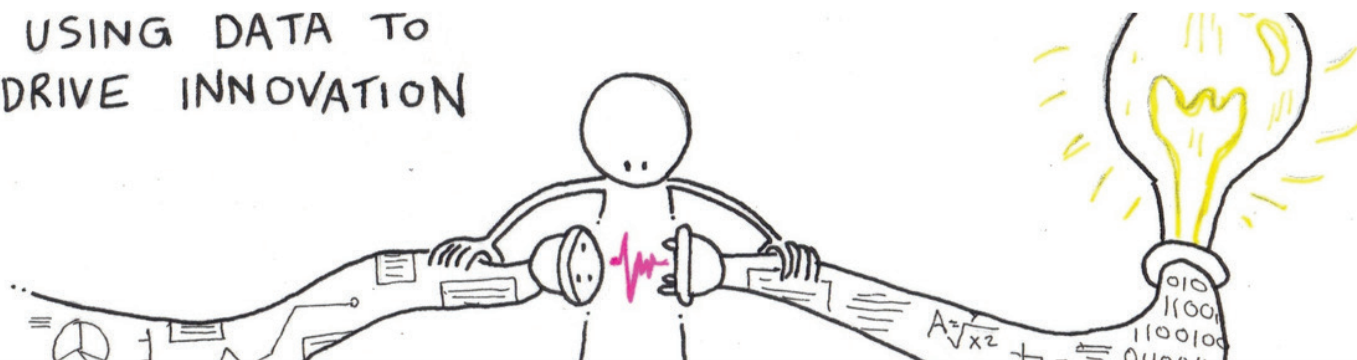
Surveying the damage post Cyclone Winston

Richard Turner, Ryan Paulik, Shaun Williams and Sheng-lin Lin were part of a RiskScape – led wind damage assessment survey in Fiji following Tropical Cyclone Winston. The team was joined by Fiji Met Service, Department of Works (Western Province), and National Disaster Management Office colleagues to conduct the survey around Rakiraki, Tavu, and Ba on Vitu Levu. The survey purpose was to gain detailed “on the ground” damage assessments for a variety of buildings types such as schools,

churches and community centres (commonly used as storm shelters), hospitals, as well as residential and commercial and residential. Building attributes and damage was assessed for 700 structures. In addition, analysis of ground station wind data in combination with detailed computer modelling is being undertaken to estimate wind gust speeds at surveyed building locations. The datasets are key for vulnerability function development and use in RiskScape modelling applications.

SOLVING THE PUZZLE: WHERE TO INVEST TO UNDERSTAND RISK

USING DATA TO DRIVE INNOVATION



RiskScape lessons shared internationally

The RiskScape programme has contributed towards a new World Bank publication that examines the current state of risk information and models. Recommendations include:

- Risk tool users and their requirements should be defined, using a participatory process.
- Data requirements should be mapped and gaps identified.
- Stakeholders should agree on lead agencies responsible for collecting and managing data, including maintaining the data

in the long term, with financial resources provided for data collection and management.

- Users should be adequately trained to understand the data, their requirements, and uncertainties and included in the method design and practice for collecting them.

To download a copy of this report go to https://understandrisk.org/wp-content/uploads/Solving-the-Puzzle_Written-Contributions.pdf

Building Survey using data collection App, RiACT, for Earthquake Commission Liquefaction Project

GNS Science has been contracted by EQC to contribute to the development of a liquefaction model for MINERVA, EQC's seismic loss model. One required task is to collect building data around the Wellington region.

A field survey to collect basic information of house characteristics such as roof types (pitch slope, gables, hips, etc.), subfloor types, cladding types (weatherboard, sheet material, masonry veneers) using electronic data was undertaken in early July 2016. The survey team was managed by members of the RiskScape team Sheng-Lin Lin and Andrew King along with six Architectural or Engineering students from University of Canterbury or Victoria University of Wellington.



The survey was completed over four days. More than 3000 buildings were surveyed, and the data captured and archived in real-time using the RiACT application, installed on seven Android tablets with WiFi connections for live upload capability. As data was collected it was transmitted live to the asset repository.

Meet the team

Dr Shaun Williams is based at NIWA Christchurch and is an experienced hazard researcher specialising in tsunami science. Shaun will be working on the new PARTneR project and tsunami impacts. Shaun has recently used RiskScape for Christchurch City Council.

Contact Shaun:

shaun.williams@niwa.co.nz



Looking forward ...

Using the feedback from our testers we are working hard to make the next release of RiskScape faster, smarter and more user driven. We will be sharing more information about the release of version 1.0 over the next few months.



Keep up to date with our news visit the RiskScape website and subscribe: www.riskscape.co.nz