



impact

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Auckland students practise for the 'Big One'

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Common acronyms

MCDEM Ministry of Civil Defence & Emergency Management
CDEM Civil defence emergency management
NCMC National Crisis Management Centre
ECC Emergency Coordination Centre
EOC Emergency Operations Centre
EMO Emergency Management Officer

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Ministerial long service awards

Ministerial Civil Defence Emergency Management Awards for long service were presented at the University of Canterbury in August. Six members of the University's rescue team were recognised for their service of more than 10 years each, with Graeme Bull having contributed 37 years. Members of New Zealand Police, New Zealand Fire Service, Christchurch City Council, Environment Canterbury and the Ministry of Civil Defence & Emergency Management (MCDEM) joined with the University to recognise the award recipients' contributions. ■



From left: Vice-Chancellor, University of Canterbury, Dr Rod Carr, with award recipients, David van Leeuwen, Graham Furniss, Graeme Bull, Heather Thomas and Mark Andrews, and David Coetzee (MCDEM), who presented the awards. Mark Warren received his award in absentia. (Photo: Duncan Shaw-Brown)

Enhancing resilience of lifelines systems

Traditionally, the resilience strategy to disaster risk of lifelines considers hazards as discrete, disconnected events.

Unfortunately, the recent Canterbury Earthquake Sequence (CES) in New Zealand and the 'Great Disaster of East Japan' have demonstrated otherwise. After a disaster, multi-hazard interactions and cascading effects may exacerbate the threat imposed to lifeline systems and to the communities that they service.

In Canterbury, CES-related physical damages to engineered and natural lifelines have contributed to increasing flood risk. Quake-impacted Cantabrians have seen several floodings, with home-floors flooded, and streets and driveways covered in contaminated flood-water. In a post-earthquake setting, where other engineered lifelines have already been weakened, floods can pose elevated risk to road, potable water, power and telecommunication systems.

A team of engineers and geographers is investigating these issues in NZ and Japan, through a unique and international collaboration initiated in NZ in 2012 between the University of Canterbury (UC) and the Technical Council on Lifeline Earthquake Engineering (TCLEE), a technical group of the American Society of Civil Engineers (ASCE). The NZ team comprises Drs Sonia Giovinazzi, Deirdre Hart, Christopher Gomez and Tom Cochrane from UC, Dr. Marion Gadsby from Environment Canterbury, and UC PhD candidate Su Young Ko and

master student David Holland. The same NZ team also investigated the 5th March flooding alongside the Geotechnical Extreme Events Reconnaissance (GEER) http://www.geerassociation.org/GEER_Post%20EQ%20Reports/Christchurch_Flood_2014/index.html

The project is sponsored in NZ by the Canterbury Civil Defence Emergency Management, Natural Hazards Research Platform (main sponsor), Earthquake Commission, GNS Science, Christchurch City Council, Waimakariri District Council, Selwyn District Council, Environment Canterbury, Chorus, Orion, Contact Energy and UC Quake Centre.

A video summarising the project motivations and aim can be seen at <http://www.youtube.com/watch?v=D7ioYoaa4SM&feature=youtu.be> ■



Contaminated flood water covering Christchurch road on 5 March 2014 (Source: Marney Brosnan).

Minister pays tribute to John Hamilton

As many of you will now know, John Hamilton is retiring from the Ministry of Civil Defence & Emergency Management on 31 October 2014. I want to take this opportunity to acknowledge the significant contributions that he has made to CDEM and to building resilience in New Zealand since he began as Director in August 2006. During my time as Minister of Civil Defence since January 2013 John has been a trusted source of advice and support for me.



John has impressed me with his steady and confident leadership during business as usual and across multiple domestic emergencies. This includes providing national leadership as the National Controller during New Zealand's first ever state of national emergency following the earthquake in Christchurch on 22 February 2011. John's calm and considered style gave New Zealand confidence during some of our darkest hours. He has continued to provide stability as lessons to strengthen our CDEM framework have been implemented.

During John's tenure, he has embedded the CDEM Act and framework in practice. He has overseen notable changes in guidance, initiatives and shift-changes across the CDEM sector such as:

- increasing professionalisation of the CDEM sector, to a level of maturity and capability not previously seen;
- the completion of the first National Capability Assessment (the monitoring and evaluation of CDEM Groups);
- the redevelopment of the National CDEM Plan, which is currently progressing through the government approval process;

- the publication of 22 guidelines issued since 2006 under the CDEM Act – including Director's Guidelines, Technical Standards, Information Series and Best Practice Guidelines; and
- national exercises to validate arrangements, notably Capital Quake (earthquake) 2006, Ruaumoko (volcanic) 2008, Tangaroa (tsunami) 2009 and ShakeOut 2012.

Over the last eight years John has also led considerable changes at MCDEM including the expansion of staff capacity following the recommendations in the Reid Report (2004), and the improvement of the National Crisis Management Centre and response arrangements. More recently he proactively reviewed and subsequently reorganised MCDEM in 2012, a move that anticipated an increased workload from implementing the recommendations of the Independent

Review of the CDEM response to the Christchurch earthquake on 22 February 2011.

In late November, I announced the Government had agreed to transfer the Ministry of Civil Defence & Emergency Management from the Department of Internal Affairs to the Department of the Prime Minister and Cabinet (DPMC). Since then, John's focus has been to ensure the smooth transition of the Ministry to DPMC, which took place on 01 April 2014. The move is resulting in opportunities for

greater leverage and synergies for CDEM and New Zealand by maximising efforts across the national security system and in building resilience.

Internationally, John has taken

"Internationally, John has taken New Zealand's story and best practice to the global stage."

New Zealand's story and best practice to the global stage. He has made a valuable contribution to disaster risk management discussions with the United Nations, APEC, ASEAN and EAS. He has re-invigorated formal agreements with MCDEM counterparts in Australia and the USA and expanded the joint Ministry of Foreign Affairs and Trade and MCDEM Pacific Island Country Programme.

Building strong, well-prepared and resilient communities is at the heart of civil defence emergency management in New Zealand. I hope you will join me in reflecting on the considerable contribution John Hamilton has made towards a resilient New Zealand and in offering our best wishes and thanks to John as he leaves MCDEM at the end of October. ■

John Hamilton, right, speaks to Radio NZ following the 2011 Canterbury Earthquake (Photo: Jason Dawson)



Auckland students practise for the big one!

Richard Woods (Auckland Council)

On 1 September, students from the University of Auckland's geohazards course took over the Auckland Emergency Coordination Centre to exercise a potential volcanic eruption from the Auckland Volcanic Field.

The simulation was developed by Jacqueline Dohaney, from the University of Canterbury, and condenses the 2008 Exercise Ruaukoko scenario from three months into about four hours. Unlike Ruaukoko the simulation does continue through the eruptive phase of the volcano, so students can appreciate the complexity of hazards while the volcano forms.

Over the duration of the exercise, students fill roles from specialist volcanic scientists through to emergency management professionals. The simulation provides injects and information, including the influence of media and social media, throughout the day, while scientific indicators lead up to an eruption in the eastern Manukau Harbour. In their respective roles, students analysed scientific data and undertook impact analyses to inform decision making. While keeping the Auckland Mayor and

Prime Minister informed of predicted development, students sometimes had to check in with the 'volcano' played by Elaine Smid from the University of Auckland.

Throughout the day, Auckland Civil Defence and Emergency Management (CDEM) staff assisted students with some of their decision making and public information requirements with the media. Clive Manley, Auckland CDEM Director, addressed the class during lunch to convey how much we enjoy hosting the future of emergency management for the day.

This is the third consecutive year Auckland CDEM has hosted the exercise. Students value the exposure to a real operational CDEM environment and the ability to engage with Auckland's CDEM professionals. Some of the challenges highlighted during the day included the ability to translate scientific information into easy to understand

messages for the public, how to deal with uncertainty in scientific data, and when to make the call for evacuation. ■

Below: The Auckland Emergency Coordination Centre during the volcano exercise.



Great Barrier Island hit by a severe storm

Cushla Buchanan (Auckland Council)

In the early hours of 11 June extreme weather in the form of high winds and intense rainfall hit Great Barrier Island.



Come daylight, for those who live in the south of the island, initial optimism that the island had gotten off lightly was quashed as reports from other areas of the island started to come in. It soon became clear that the damage sustained in the south was minimal in comparison to that in the north and west, where significant slips had blocked and taken out roads, isolating several communities.

The priority was to clear slips and open roads to allow residents to reach basic resources of food and fuel. The agencies involved worked together to share information, assessing and prioritising response and welfare needs. Local contractors got on with the tasks at hand and worked tirelessly. It became apparent that the extent of the damage outweighed the amount of resources available on the island; Fulton Hogan arranged supply of additional contractors and heavy machinery. The need to keep the community informed was also a key priority. Daily updates were provided through the local radio station and public noticeboards to ensure the community was up to date with

the road network status and other key information.

Community-owned response was showcased at its best in the sea-only-access community of Wairahi Valley. Damage to the valley was intense, with added concern of numerous log jams that could potentially cause further damage. A bunch of hardy volunteers armed with chainsaws boated in as tides allowed, starting the mammoth task of clearing trees to eliminate the ongoing risk of flooding to houses and gardens.

The success of the response was due to the strength of existing networks and relationships between local emergency service agencies, contractors, and the community. The remediation task remains enormous, with major engineering required to make the road network fully functional again. This, combined with the loss of millions of dollars of assets and infrastructure, means a long term period of recovery lies ahead for the island. ■

Above: Wairahi Valley volunteers clearing trees.

Below: The Wairahi Valley community spirit comes to the fore.



Wanganui CDEM talk hazards at Show

Matt Smith, Wanganui Emergency Manager

The Wanganui CDEM Team was on their feet for the weekend of 6th – 7th September running a public engagement stand at the Wanganui Home and Lifestyle Show.

“We wanted to engage with our community about the hazards affecting their home or property”, said Matt Smith, the Wanganui Emergency Manager. “This was our chance to use some technology to do so.”

By remotely logging into the Wanganui District Council GIS system, staff could identify individual properties and print a copy of the maps that the public would receive from a Land Information Memoranda (LIM) request. This gave them a copy of their properties liquefaction, flooding and utilities maps. If they were near the coast then Tsunami hazard maps were examined. Talking about the hazards then lead onto specific ‘what would you do?’ conversations about how to deal with the issue. The stand had Emergency Management and Resource Consent Planning staff on site during the weekend.

“Council planners were looking to engage on a proposed District Plan change around land stability areas – it made sense for them to come along and talk general hazards with the

public as well,” said Matt. Having Planners on site meant they could answer a number of property related questions as well, things like protected trees even got discussion.

Being one of the first stands just inside of the show (which was estimated to have 9,000 people through the door for the two days) meant it was in a prime space to ‘have a chat’ as the public came in. Over 550 emergency information packs were distributed free of charge – Get Ready ‘Eco’ Bag, Home Emergency Plan, Wanganui CDEM business cards and fridge magnets.

With the Wanganui Red Cross Team also having their Disaster Welfare Support Truck on display throughout the weekend there was good coverage of the getting ready for emergencies message when people walked in and on the way out of the stadium.

A good opportunity to engage the local community and one that Wanganui CDEM will use again in future. ■



Photo: Rachel and Stacey from the Wanganui District Council Planning Team take a break to talk artwork while Anthony (EMO Response & Recovery) gets information packs out to the public.

Exercise Cyclone Cindy in Wanganui

New Zealand Red Cross

The weekend of 14th – 16th November is going to see the annual NZ Red Cross Disaster Welfare and Support Teams (DWST) exercise taking place in the Wanganui region.

The North Island teams are getting together to put their training to the test during the annual exercise. Ten teams totalling 120 volunteers from as far away as Whangarei and Nelson will spend the weekend working through their paces covering Response, Rescue and Recovery.

This is a multi-agency and community based exercise with Wanganui & Rangitikei CD, NZ Fire, Police, St Johns, Rural Fire and Coastguard all taking active roles over the weekend.

The exercise is based on the severe weather event that hit the Wanganui region in 2004.

Tasks are designed to be as realistic as possible and will be keeping the teams busy right through the weekend.

Friday will see the establishment of a New Zealand Red Cross Emergency Operations Centre (EOC), deployment of teams from their home regions, and communication lines setup with Civil Defence.

On arrival into the Wanganui area, teams will receive initial taskings as part of the response phase.

Saturday will see teams moving from the response to the rescue phase, building to significant events during the night and early morning.

Recovery is the focus of Sunday with the changing of Welfare Centres into Recovery Assistance Centres (RAC's) and assisting people in the community.

Look for the post exercise report to see how the teams have put their skills to the test. ■


NEW ZEALAND RED CROSS

EXERCISE CYCLONE CINDY



**NOVEMBER 14-16
2014
IN THE WANGANUI
REGION**



WANGANUI is hosting the NORTH ISLAND DISASTER WELFARE SUPPORT TEAMS EXERCISE this year, as part of our continued training in EMERGENCY MANAGEMENT to help in times of DISASTERS



Bring your team to exercise cyclone Cindy, for an experience you will never forget. Realistic multi agency exercises.



Types of exercises on the weekend; Welfare, GBR, RAC centres, Outreach, Comms, Building mapping, Flood protection, Water distribution, Land SAR, USAR and more.



BOP Lifelines Group Resilience Benchmark Project

Eighteen infrastructure organisations in the Bay of Plenty got involved in a project to benchmark their organisational resilience as part of a Bay of Plenty Lifelines Group (BOPLG) resilience project.



The project used the Resilient Organisations Benchmark Resilience Tool. All organisations that participated received a report with their resilience score, resilience strengths and a suggested action plan for addressing resilience weaknesses.

An analysis comparing the resilience across all organisations revealed some interesting findings:

- While infrastructure providers are very good at planning, they aren't so good at stress testing their plans. The BOPLG have since come up with some excellent ideas on how to improve this.
- The organisations were good at developing effective partnerships but there were still problems with breaking down silos, both within and between organisations, to make their partnerships work even better.
- There are some critical interdependencies between the organisations that have not been

sufficiently planned for, most notably planning for loss of electricity, data and phone networks.

- Senior managers consistently score their organisations better than the rest of staff – highlighting the importance of getting an organisation wide view of resilience.

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Resilience is the ability of an organisation to survive a crisis and thrive in a world of uncertainty. ■



New publications

The **Technical Standard for Tsunami Warning Sirens** has been published and is available at <http://civildefence.govt.nz/resources/tsunami-warning-sirens/>

This standard aims to achieve national consistency when sirens are used by local authorities as a public alerting option for tsunami warnings. It addresses the required siren signal, the meaning of sirens, and the requirements for their operation.

It is important to recognise that sirens should be only one component within a wider warning system, and that the publication of this Standard is also not an official endorsement of their use for tsunami warnings because they have a number of disadvantages.

The accompanying research documents, *The use of sirens for tsunami warning in New Zealand* and *An evaluation of the Signals Used for Tsunami Warnings in New Zealand*, were commissioned by MCDEM to inform the development of the standard. They, and a sound file of the electronic siren sound, can be found at the same URL as the Standard. The Standard was also widely consulted with CDEM Groups.

Lifeline Utilities and CDEM:

Director's Guideline. (Review and amalgamation of DGL 3/02 and BPG 1/03). This guideline has recently been reviewed and published and provides detailed information to Lifeline Utilities and CDEM Groups on their responsibilities, and the advantages of working in partnership before, during and after an emergency to enable Lifeline Utilities to meet their obligations under the CDEM Act 2002. This publication is available on the MCDEM website.

Tabletop exercises in innovation

Jason Paul, Wellington Regional Emergency Management Office

A powerful 6.4 earthquake has just hit a city on the other side of the world; the city is in chaos, communication networks are down and the infrastructure crippled, innovation to the rescue!

The earthquake is fictitious but the challenge is real, posing the question: how do we effectively innovate to help people during times of disaster?

The challenge was set up at an innovation conference in San Francisco run by New York's Field Innovation Team to showcase the potential of innovative problem solving sourced from outside of a disaster zone to assist with response activities on the ground. Teams around the world, including two in New Zealand, were given 24 hours to develop solutions to present virtually to a diverse audience in San Francisco with attendees representing the Lieutenant Governor of California, Facebook, MIT, UC Berkeley, San Francisco Emergency Management and more.

Wellington Regional Emergency Management Office (WREMO) staff and a core of technical and subject matter volunteers joined the challenge, along with a team from New Zealand's Critchlow Geospatial Services, and others around the world.

WREMO's team focused on the process of developing solutions, rather than the solutions themselves. They employed Design Thinking methodologies from Stanford University's Design School to develop better understanding of the needs of the users, enabling them to better

define the problem, and then analyse and refine solutions. WREMO's team not only had "blue sky" thinkers but also grounded their solutions in experience; almost all the people involved had worked in significant emergencies.

The team identified a central theme to drive their ideas; "How can we provide certainty" for a community in upheaval with concerns about loved ones, safety, and their short, medium, and long term future. The team looked to provide better communication, information flow, and to support neighbourhood connectedness.

Two concepts were presented, the first was to connect people together, like family, friends and colleagues, by using a locally sourced Wellington technology called, My Wolf Pack. The developer of the app was brought in and assisted the team with understanding what was possible with the technology and how it could be further developed to meet the needs of a disaster. Eventually the app could provide updates on the location of friends within a network area, significant meeting points, the ability to message the network, and send out requests for help with limited internet connectivity.

The other concept was less technology focused. Uncertainty in the community revolves around a lack of information,

and frustrations stem from the upheaval to routines. The idea of a disaster gypsy fair of "Taco Trucks" developed into the "Community Truck". These trucks would follow a consistent route in the area on a regular basis to provide a sense of normality and regularity, and bring aspects of the emergency response to supplement traditional support of welfare/assistance centres, encouraging the response to be more agile. The trucks would also bring some basic facilities such as WIFI connectivity, and charging stations, but the focus would be on providing information, access to services, and a sense of coming together.

WREMO is looking at running a similar 'out-of-the-box' Design Thinking exercise with other CDEM groups. For more information contact Jason.Paul@gw.govt.nz ■



WREMO hosts Neighbourhood Support NZ

Roger Eynon, Neighbourhood Support New Zealand Chief Executive Officer

Neighbourhood Support New Zealand (NSNZ) has pretty much always held their Board meetings on Police premises.

Roger Eynon (NSNZ CEO) had previously been offered the use of Wellington Regional Emergency Management Office (WREMO) facilities for general meetings. Circumstances and changing priorities meant that the time was right to pick up the offer and the June 2014 NSNZ Board meeting was held at WREMO.

The facility wasn't just an alternative meeting room. It represented the fact that both organisations have a very firm community focus for similar reasons. The coming together of the NSNZ Board in that space reflected how close the thinking is these days when it comes to community participation and responsiveness.

Dan Neely, Manager, Community Resilience and his colleagues welcomed the use of the venue in this way. It wasn't lost on participants that this was the first meeting of a new style NSNZ Board, in a trial period where the number of members has reduced to 7 from the usual 16. This is quite a



change for NSNZ but as is the case in many environments in New Zealand, pressing for new ways to deliver better outcomes is an expectation both internally and externally.

Close proximity in location and in thinking is proving to be important. NSNZ can account for 240,000 households as members. The Integrated Research on Disaster Risk, a UN programme, has designated the Wellington region an International Centre of Excellence in Community Resilience. The Wellington Region Emergency Management Office

and the Joint Centre for Disaster Research at Massey University are stewards of this Centre.

The next NSNZ Board meeting in October has also been scheduled to occur at WREMO. ■

Photo above: The NSNZ Board meets at WREMO in June.

Photo below: Roger Eynon (NSNZ CEO), at right, with members of the WREMO.



Maori resilience: preliminary results from Rapaki

Regan Potangaroa, Maire Kipa, Karen Mills, Ann Winstanley

A recent study of Maori Resilience may shine more light on the characteristics of resilience in Maori communities and possibly lead to better and hopefully more informed resilience indicators.

The study looked in depth at the role of Place and Social Capital in the Rapaki community which is the next bay around from Lyttelton and directly below Tamatea. The community suffered several well publicised direct rock strikes on two houses. The study, completed as part of a larger city wide study, was conducted by the Institute of Environmental Research (ESR), and is in partnership with Canterbury University and the Seaview Resilience Centre. It is funded by the Ministry of Business Innovation and Employment, and aimed to provide new knowledge on community resilience and how to build it. This knowledge will be used in New Zealand and assist in improving the response and recovery from other adverse events.

Preliminary results suggest the following:

Objective 1: To identify the significance of pre- and post-earthquake examples of social capital and sense of place as determinants of community resilience and to develop new, evidence-based indicators and measures of these determinants that can be used by institutions for community profiles and allocation of resources.

- Resilience is the result of a long term process. The resilience seen in the community surprisingly came from a

long term attachment which is perhaps not surprising, but that it occurs before the devastating February 2011 Earthquake was. The team were of the opinion that such resilience occurs after the event.

- Resilient responses occur at different rates. Different people respond and “recovered” at different rates.
- Impacts on the community’s resilience were inter-disciplinary; for example the impact of red zoning some houses...but not all. It would appear that no one agency will have the knowledge to make an informed strategy.
- The Marae as the “forum point” where all opinions and views can be aired, tested and new information disseminated did hold...but mindful of the different rates mentioned above

Objective 2: To examine how whānau and Māori groups construct resilience and the significance of ancestral ties to land and Marae (sense of place), and how can this information inform Iwi and governance response and recovery.

- It was difficult to balance the commitments to the community,

to whanau and to themselves. And moreover, this “balance point” changed with time.

- These changes probably need to be tracked and identified.

Objective 3: To understand how individuals, communities and institutions integrate scientific information into constructions of risk and make decisions that can contribute to building resilience.

- There is a need to re-align the objectives of disaster risk reduction and the cultural values and norms of communities. These collided in Rapaki and increasingly prevented any resilient or reasoned response.
- Tied to this was a lack of access to information for managing their own risk in their own way on land that had protected generations.
- And there is a “desperate” need for a socio-technical approach.

While these are not indicators by themselves the fear in selecting them over stating what they should measure seem appropriate in the fear that what was being measured can become the critical focus rather than the identified characteristic. They were perhaps the “academic findings but the analysis of the interviews went further and suggest the following:

- Rapaki is a place that can heal.... beyond the history, growing up on the “Pah” (rather than the “Pa”) and a seemingly obvious sense of Place... Rapaki had the capacity to heal those that lived there.
- And that Rapaki seemed to be “a person” to those interviewed, regardless of their age or time at the Pah. It was like there was another person somewhere in the background.

Finally, the study suggested that Māori probably need to be pro-active in any disaster response...beyond the Marae...and beyond Rapaki. ■



Kaikohe Youth in Emergency Services (YES)

Shona Morgan, Northland Regional Council

In May this year, twelve local teenagers participated in the Kaikohe Youth in Emergency Services (YES) programme.

This programme was an initiative that came from the Rural Fire sector in Rotorua and has been developed into a national programme implemented by the Minister of Youth Development and Civil Defence Nikki Kaye.

YES is designed to strengthen young peoples sense of connection to their community, as well as introduce them to the skills needed to participate in the various volunteer emergency service organisations.

The New Zealand Fire Service, Rural Fire Authority, Red Cross, Coastguard and St John each guided the 12 candidates through four weeks of practical and theory training before undertaking a combined services exercise. The support of two helicopters from Northland Emergency Services Trust and Skyworks helped create a very realistic operational experience for the candidates.

Over 70 personnel attended the exercise coordinating numerous scenarios, such as a plane crash, car accident, scrub fire and river rescue.

YES programmes were also run this year in Rotorua, Gisborne, Mangakino/Turangi, Kaikoura and Alexander. After such success in Kaikohe and some really positive feedback from the candidates, it is hoped that Northland will be selected to run the YES programme again in 2015.

For more information and photos, check out our Kaikohe Youth in Emergency Services Facebook page. ■



Red Cross First Aid & Emergency Management App

The New Zealand Red Cross has launched a free app offering step-by-step first aid and emergency advice.

The New Zealand Red Cross First Aid and Emergency App provides information on everyday first aid scenarios, tips on how to prepare for disasters and instructions on what to do during an emergency.

Tony Paine, Secretary General of New Zealand Red Cross said the app is a lifesaving tool that everyone should have in their back pocket.

"Emergencies can happen any time, anywhere and can affect anyone. The first people to respond to any type of disaster are everyday people - not doctors, paramedics or emergency responders. In an emergency 90 per cent of lives are saved by local people," Mr Paine said. "If a friend was having a heart attack or was choking, would you know what to do? Is your emergency preparedness kit up-to-date? The app answers these questions so download it and get ready to be a life-saver."

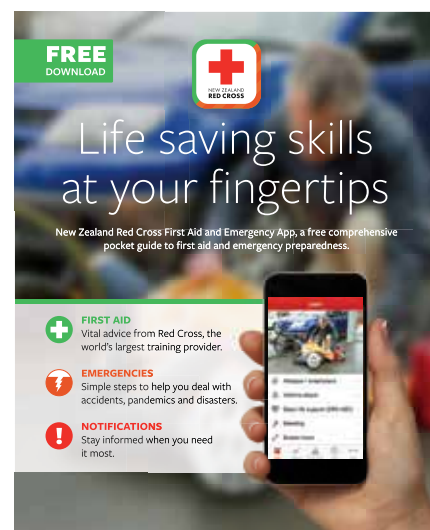
Information, videos, and interactive quizzes are preloaded to the app, ensuring instant access to lifesaving information even without cell phone reception or an internet connection.

The app was developed for New Zealand Red Cross as part of a global initiative by the Red Cross Movement's Global Disaster Preparedness Centre in Washington DC.

Other Red Cross societies around the world have successfully launched their own versions of the app, which have had more than 2 million downloads.

"We know first aid saves lives and after hearing several stories from our Red Cross partners around the world of how the app content has helped someone, we were very keen to develop our own app with content specific to New Zealand," Mr Paine said.

To download the app, go online to www.redcross.org.nz/app ■



New Zealand Red Cross First Aid and Emergency App
FREE download for your smartphone or tablet
www.redcross.org.nz/app



Joint Centre for Disaster Research – Emergency Management Summer Institute

The Joint Centre for Disaster Research will deliver its short course programme for Emergency Management at Massey University's Wellington Campus from 2–6 March 2015.

Now in its eighth year this short course programme has been developed to provide a theoretical and practical introduction to selected topics relating to emergency management.

Each course will begin with an introduction and review of New Zealand and international research and practice. The topics will then be explored through a series of relevant case studies. The final session of each module will provide practical tools and guidance for turning the 'theory to practice'.

The programme includes Emergency Management Planning; Developing Effective

All-hazard Warning Systems; Evacuation Planning and Welfare; Classroom in the Coach (field excursion); and The Role of Public Education, Community Engagement and Public Participation in Building Resilient Communities.

This course will help you better understand how your organisation can prepare for, respond to, and recover from a disaster.

Emergency managers and social and physical scientists form part of the multi-disciplinary team that explores relationships between the physical and social aspects of natural hazards and their management.

This course is designed for those involved in all aspects of emergency management: planners, educators, engineers, local and central government policy makers, insurance managers, researchers, emergency managers and utility and property owners.

More information is available online at <http://disasters.massey.ac.nz> ■

Planning for a Volcanic Crisis short course

This year's Planning for a Volcanic Crisis short course will be held in Taupo on October 20–21, with an optional field trip on October 22.

This two day course, for which GNS Science is the lead organiser, will present a state-of-the-art assessment of volcanic hazards in New Zealand, and will help you better understand how your organisation can better prepare for, and mitigate against, a future volcanic crisis.

Volcanologists, social scientists and emergency managers form part of the multi-disciplinary team that explores relationships between the physical and social aspects of natural hazards and their management.

The course is designed for those involved in all aspects of natural hazard management: planners, educators, engineers, local and central government policy makers, insurance managers, emergency managers and business, utility and property owners.

The first two days will cover topics including volcanic hazards, impacts and mitigation; volcano monitoring and warning systems; Geonet and social media; Caldera unrest and Taupo volcano; contingency planning; the Tongariro National Park Volcanic Alert Network; and crisis management.

On the third day there is an optional field

trip to explore parts of the Taupo Volcanic Centre.

More information is available online at www.gns.cri.nz ■

Lake Taupo filling Taupo Volcano's caldera
(Photo: Dougal Townsend, GNS Science)



Announcing Dates for 2015 NZ Emergency Management Summit



The NZ Emergency Management Summit, the national event for Civil Defence, Emergency Management and Business Resilience sector in New Zealand, is scheduled for 24 & 25 February 2015 at Mac's Function Centre in Wellington.

Supported by The Ministry of Civil Defence & Emergency Management, the event will include thought leading experts from abroad and across New Zealand to influence and inform the decisions we make in our day-to-day operations.

The event will run concurrently with New Zealand Business Resilience Forum, which aims to attract risk managers and business continuity managers across the public and private sectors. Both events will provide interesting topics and plenty of networking opportunities that both emergency and risk managers will benefit from.

The Emergency Management Summit will be chaired by Jon Mitchell, a well known emergency management professional. Jon will also present the latest insights into CIMS. Another well-known speaker

will feature in the 2015 programme – Dan Neely and his team at WREMO have been working on some exciting civil defence emergency management issues over the past few months, one of them being pre-disaster planning. To complement Dan's presentation, we have secured Scott Miles, Director of Resilience Institute and Associate Professor at Western Washington University, to deliver an international keynote presentation on what focusing on recovery and pre-disaster planning means globally.

The line-up of exciting speakers does not finish there. Pierre van Heerden, General Manager of Sanitarium Health & Wellbeing, will present on the aftermath of the devastating Christchurch earthquake for New Zealand's favourite spread. We may all

know the story, but this time we will learn important lessons from a leadership point of view.

By now a traditional feature of the event is an inspirational address – this time delivered by Jamie Fitzgerald himself! Who doesn't know the world-class adventurer who traversed the South Pole and rowed across the Atlantic Ocean? Just like an adventure, everyone experiences the journey differently. In his motivational presentation, Jamie will challenge and inspire us to conquer our quests.

The final programme is expected to be released and announced in the next couple of weeks. Stay tuned via <http://www.conferenz.co.nz/conferences/nz-emergency-management-summit>. ■

Resilience Opportunities Workshops Programme

Christchurch: 1-7pm, Tues 21 October 2014
Auckland: 1-7pm, Wed 29 October 2014
Wellington: 1-7pm, Tues 4 November 2014

Enhancing resilience and staying resilient are key challenges that organisations face in the 21st century. A resilient organisation is able to effectively adapt to the host of challenges that organisations are likely to face in the next ten years.

How can you make your organisation or community more resilient? Attend a two-part interactive workshop organised by Resilient Organisations where you will engage with others to develop practical action plans to enhance resilience in your organisation or community. In part 1, you will brainstorm with others to generate

creative ideas for enhancing resilience and staying resilient. In part 2, you will develop action plans to implement the best ideas. The two parts are totally interactive, where you work collaboratively with others to build resilience.

In addition to this, learn about the latest research in the field of resilience and attend a panel discussion on "Why isn't resilience on the radar for most organisations and how can we change this?"

It's free! So please come along!

Numbers limited to 120.
RSVP with your preferred location to charlotte.brown@cpit.ac.nz.

More details will follow. ■

Programme

1pm Welcome

1:30pm Part 1 – developing ideas to address resilience challenges

2:30pm Resilient Organisations research showcase

3:15pm Afternoon Tea and posters

3:45pm Part 2 – developing action plans to tackle resilience challenges

4:45pm Panel discussion

5:30pm Short speech by guest speaker, drinks and nibbles

Infrastructure Impact Modelling

Concerns about infrastructure reliability gather more steam year by year. A group of modellers has a new approach to explore the economic effects of outages and the benefits of mitigation.

Infrastructure is important because it enables commercial and social activity. We all suffer when outages occur but the full costs are difficult to identify as the outage ripples through economic sectors, across suburbs and regions and over time. So a group of researchers are seeking to explore economic implications of failure from both natural hazards and 'infrastructure-only events', and also to understand the value of mitigation, the offsetting impact of business adaptation and the merits of official response options.

It's a four-year, MBIE-funded research programme that will result in a new tool, or model, called MERIT. That stands for 'Measuring the Economics of Resilient Infrastructure Tool'. Think of it as an integrated spatial decision support system, available as a test-bed to inform central and local government policy and infrastructure

providers looking to quantify resilience enhancement options.

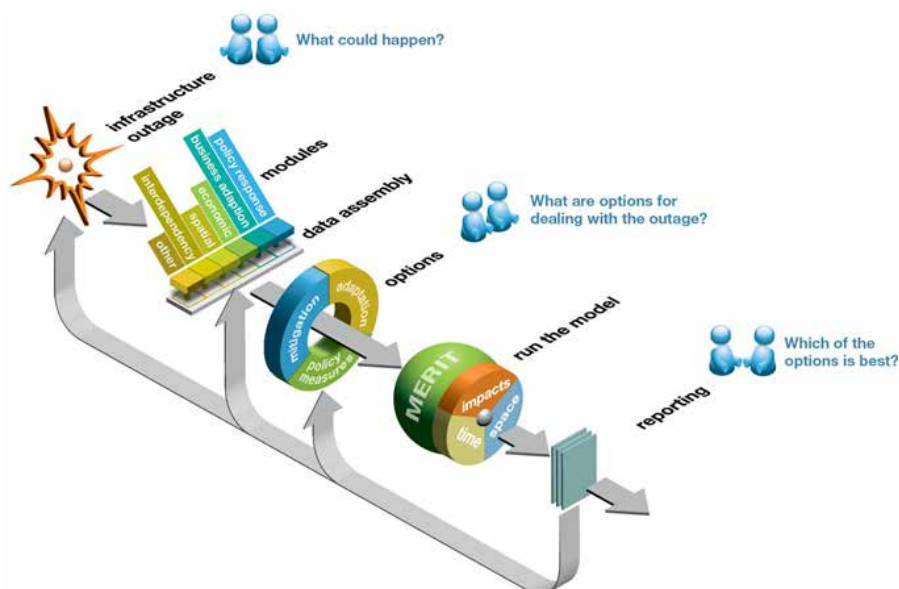
MERIT may take different forms to match different user needs, but will go beyond traditional modelling specifically revealing transition pathways and spatial implications arising from outages.

The research group is working actively with infrastructure providers in several sectors. Discussions are also advancing with central and local government organisations.

Please contact Michele Daly for further information (m.daly@gns.cri.nz). Information is also available on <http://www.naturalhazards.org.nz/NHRP/Hazard-themes/Societal-Resilience/Economics-of-Resilient-Infrastructure>. ■

The research team is broad-based. Michele Daly of GNS Science is leading the work. Dr Garry McDonald brings Market Economic Ltd's modelling expertise into the group. Dr Erica Seville from Resilient Organisations is surveying Christchurch businesses to inform the model on post-disaster adaptation responses. Auckland Council is involved as a key user. Tony Fenwick, Simon Worthington (Research First) and Regan Solomon (Auckland Council) are working with end-users.

An Advisory Group brings together senior representatives from Local Government New Zealand, the New Zealand Council for Infrastructure Development, the National Infrastructure Unit, Auckland Council and Transpower.



MERIT consists of a set of modules (for example, the economic module contains the main behavioural relationships and the interdependency module describes how infrastructure sectors use each others' services). Data must be contributed to quantify module elements. Users can assume the role of decision-makers, testing mitigation, adaptation and policy settings. Model simulations estimate impacts described spatially and temporally. The model could be run several times to explore different outages and decisions.

Fiji Disaster Preparedness and Business Continuity Planning training

Graham Nel, Disaster Prepare

After some time, resorts in Fiji's remote outer islands of the Yasawas gathered to learn about disaster preparedness and become trained in business continuity management in a three day workshop held at Botaira Resort on Naviti Island.

Participants from the Yasawa Islands worked together to identify risks and hazards affecting business operations such as tsunamis, cyclones, droughts and fires to establish clear procedures to maintain business services throughout hazardous events to prevent disasters.

Held in partnership by South Pacific Tourism Organisation (SPTO), Learn.Fast, Disaster Prepare, Workbridge and the United Nations Office for Disaster Risk Reduction (UNISDR) participants from 11 resorts and lodges in the Yasawa islands undertook preparedness training to become more resilient to disasters. The three day workshop was fully funded by the European Union EDF10 Pacific Regional Tourism Capacity Building Programme managed by the SPTO.

"A lot of businesses rely on generic emergency response plans which may not be best suited for their individual location. What we have managed to achieve in this course is to highlight locations' specific hazards to develop more effective preparedness and response plans" Graham Nel, co-facilitator and director of Disaster Prepare Ltd, said.

Business owners, operators and staff developed individual business continuity

plans specific to their resort and location by identifying core services and alternate suppliers, delegation of roles and responsibilities needed to help ensure business as usual when natural hazards occur.

"It's about bringing people together, focusing not just on emergency planning but what needs to follow to keep your business going and keep your customers happy," Chris Elphick, Director of New Zealand based training company Learn.Fast and co-facilitator of the workshop, said.

Studies show that between 25%-40% of small businesses never re-open after a major disaster. "By assisting private businesses make better choices to become more resilient to natural hazards helps promote continued local employment in villages, ensures livelihoods are protected and benefits the national economy through reducing risk and impact when natural hazards occur," Timothy Wilcox, Subregional Co-ordinator for UNISDR Pacific, said.

Participant, Joe Ramagimagi, manager of Oarsman's Bay Lodge recommended the training to be expanded so that all staff can reap the benefits of the workshop. "There has been a lot of useful facts that helps to

develop leadership and decision making during a disaster. We have learnt today that something hazardous does not have to destroy the future of your business," Ramagimagi said.

"These businesses are naturally resilient having already experienced and bounced back from events such as Tropical Cyclone Evan in 2012. It is clear they have learnt to support themselves and each other in times of emergency. It's all about sharing these experiences, broadening knowledge and continuing to work together to become better prepared, reduce the risk and impact of natural hazards" South Pacific Tourism Organisation' Human Resource Development Specialist Ro Filipe Tuisawau said.

Mr. Isikeli Mulase, Naviti District Representative advised the lessons from the workshop can be expanded from businesses to villages, "All resorts in the island should call on village elders and operators to come and be briefed on the lessons we learnt from this workshop. We need to change the village mentality and become more active and not react to natural hazards."

Botaira Resort owner Jeremaia Sovatabua said they were grateful to the EU and SPTO that the disaster preparedness workshop was held on their own doorstep.

"Yasawa is one of the more disaster prone areas in Fiji as we are exposed to the winds and open seas. I would think that anyone who runs such a business in Yasawa would jump to learn about how to deal with natural disasters."

Participating resorts included Long Beach Resort, Gold Coast, Safe Landing, Barefoot Island, White Sandy Beach, Oarsman's Bay Lodge, Stonebowl Lodge, Sunrise Lagoon, Wayalilai Resort, Naqaua Lodge and Botaira Resort. ■



Witnessing the volcano

Sarah Barnett, media officer for Volunteer Service Abroad (VSA), was in Papua New Guinea recently and witnessed the spectacular eruption of Mt Tarvurur.

One of the first things my colleague remarked on as we landed at Tokua Airport in Kokopo, East New Britain, Papua New Guinea, was that the volcano was unusually quiet. The Rabaul caldera, which sits at the tip of the Gazelle Peninsula alongside the town of Rabaul, is volatile. In 1937, Tavurvur and Vulcan erupted, killing 508 people. They erupted again in 1994, destroying Rabaul and displacing the entire town, though this time the death toll was five, thanks to a monitoring station and warning system developed after the '37 eruptions.

So when we landed in Kokopo, it was unusual, apparently, that it was totally quiet. On Friday, August 29, it woke up. I was travelling with Volunteer Service Abroad, for whom I work, with my colleague Chris Mitchell. VSA's PNG Programme Officer, Howard Iseli, rang me at 5.00 that morning to say if I went outside, I'd get great photos. I wasn't so careful breaking the news to Chris: I rang him and shouted "The volcano's erupting!" He didn't appreciate the adrenaline rush.

We had spectacular views from Rapopo Plantation resort, across the bay from the caldera: the lava shooting up, smoke rising from the pyroclastic flow down the mountain's flanks, localised lightning in the ash cloud.

The ash cloud, importantly, was blowing away from Kokopo. We knew Rabaul itself was, once again, partially evacuated (there were no deaths). Those remaining were warned to stay home with the windows shut. We also knew that the ash would be bad news elsewhere.

Kabaira, to the west of Rabaul, bore the brunt of the impact outside of Rabaul. A number of volunteers – from VSA as well as other international organisations – told me the first most of them knew the volcano had erupted was when ash started falling (the mountain isn't visible from their location). Lorena de la Torre, volunteering at Kabaira Girls' Vocational Centre (KVC), said her garden was scorched by the ash fallout, and they didn't know yet how the rest of the College's plantation had fared.

Judging by what I heard from other volunteers, probably not well. A Methodist Church volunteer at St George Secondary School, just down the road from KVC, said she'd got a text that morning with a rumour the volcano had erupted and went outside into what she'd thought was rain. Within minutes, she said, she was covered in ash, and her skin was itching and burning. Most people in Kabaira live off their land, and she told me they're scared for the coming months – their crops (and, therefore, their livelihoods) have been destroyed.

Rabaul is the major port in the area. If ships can't come in, there will be few grocery deliveries, too. It's likely that the coming food shortages will drive up prices on what's left.

We know that developing countries are especially vulnerable to natural disasters – it's a major topic of conversation at the Small Island Developing States conference in Apia this week. But this is what it looks like in practice: weeks, probably months and possibly even years of further hardship for people living their lives in the wake of the event.

Local people have an affectionate name for Rabaul: Radaaz. It means "dust", but symbolises

Rabaul's spirit of triumph over Mt Tarvurur's adversity. From what I saw last week, they will continue to triumph over the volcano's challenge. But it won't be easy. ■

Photos by Chris Mitchell, VSA

