

# International Centre of Excellence in Community Resilience: Wellington (ICoE:CR)

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## Information sheet

We are pleased to announce the launch of the International Centre of Excellence in Community Resilience based in the Wellington Region, sponsored by the Integrated Research on Disaster Risk programme (IRDR). The Joint Centre for Disaster Research (Massey University/GNS Science) and the Wellington Region Emergency Management Office are coordinating this region-wide initiative to answer the question: 'How does a community make itself resilient to future disasters?'

This regional International Centre of Excellence forms part of a United Nations initiative to enhance the regional and research foci of the IRDR programme through a network of international research and practice clusters. The 'IRDR International Centre of Excellence in Community Resilience', herein referred to as **ICoE:CR**, is composed of a number of key organisations across the Wellington region, each of which play a fundamental role in the research into, and implementation of, disaster preparedness. Through partnerships at the local, national and international level, leading research will be applied to the practice of the Wellington Region Emergency Management Office's Community Resilience Strategy<sup>1</sup>. The implementation and outcomes of this strategy will in turn become a primary research focus of the ICoE:CR.

## Vision and objectives

The ICoE:CR will encompass key organisations across the region to develop the science-based models, methods and metrics that provide empirically-based support for community resilience practices. Its overall vision is to be:

*An internationally recognised centre of excellence, to research and enable community resilience to disasters; actively collaborating with individuals, organisations, and communities in the Wellington Region.*

The key objectives of the ICoE:CR are to:

- *Provide an evidence base for the Community Resilience Strategy.*
- *Act as a vehicle to share international good practice in Community Resilience.*
- *Promote the Wellington Region as a living laboratory for research and learning.*

This vision will be implemented in a number of ways. Primarily the ICoE:CR will support the IRDR objectives of characterising resilience through empirical measurements, based upon the principle that resilience affords many benefits to societies and their members. This involves understanding how mainstream community/cultural processes influence resilience (based on the premise that people's capacities derive primarily from their everyday life experiences). That is, understanding

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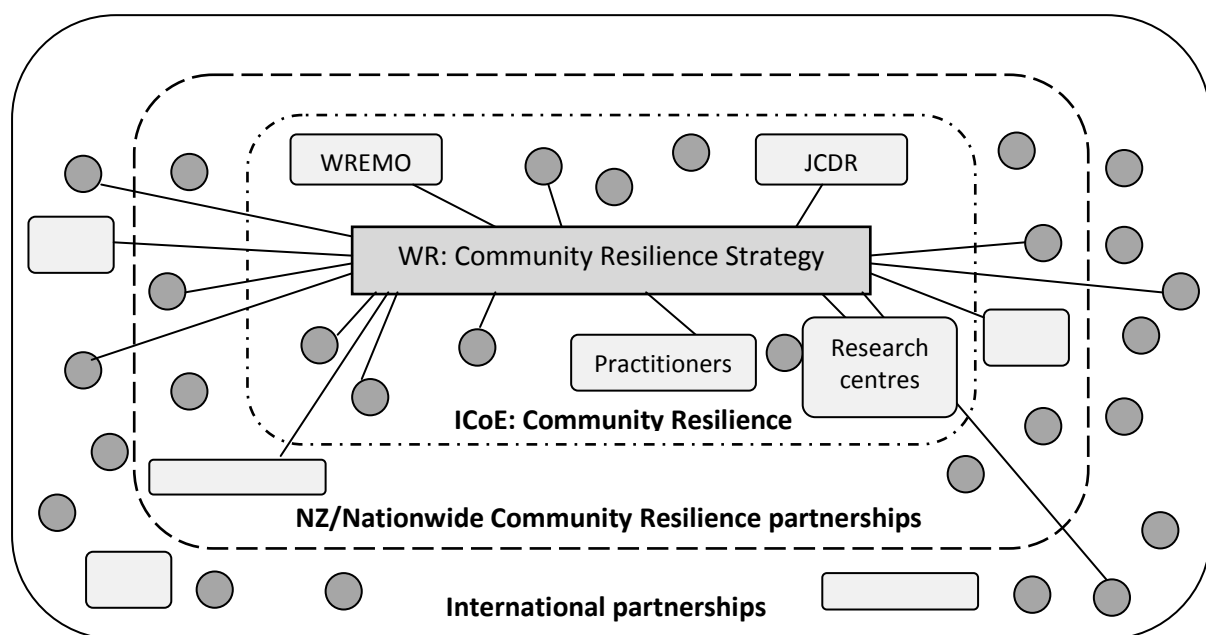
<sup>1</sup> The Wellington Region Community Resilience Strategy can be downloaded here: <http://www.getprepared.org.nz/sites/default/files/uploads/Community%20Resilience%20Strategy%202012.pdf>.

how ‘everyday’ community competencies and characteristics influence risk, consequences, and the choices people make about how to manage their risk. This affords opportunities to implement resilience programmes in ways that integrate risk management and community development through community engagement. This process increases the likelihood of sustained benefit as a result of its focus on developing social capital that can have benefits in everyday life, and not just when disaster strikes.

The ICoE:CR will provide some baseline support for all four of the working groups of IRDR—Risk Interpretation and Action (RIA), Assessment of Integrated Research on Disaster Risk (AIRDR), Forensic Investigators of Disasters (FORIN) and Societal and Economic Research and Applications (SERA).

## Membership and structure

The core of the ICoE:CR is the Wellington Region Community Resilience Strategy, and it is expected that all active members of the ICoE:CR will feed their outcomes and findings back to the Strategy such that we can all enhance the resilience of the Wellington Region. Wellington Region Emergency Management Office (WREMO) and the Joint Centre for Disaster Research (JCDR) thus act as the co-ordinating organisations of the ICoE:CR, through which they help facilitate engagement with the ICoE at regional, national and international level, as depicted below:



All individuals and organisations in the Wellington Region are ‘passive’ members of this centre by default, and ‘active’ members are those conducting research or practice under the Community Resilience Strategy. It is envisioned that any ‘active’ member can be part of the ICoE:CR for as long as they choose. However, all ‘active’ members are expected to follow a code for membership that includes a requirement to report on activities related to the ICoE:CR on a biannual basis, so that a database of community resilience knowledge in the region can be maintained. This database will:

- help both practitioners and researchers enhance the community resilience of the region,
- provide a valuable resource for national and international practitioners and researchers on leading community resilience ideas, and
- provide a tool through which research and practitioner knowledge gaps and further areas for collaboration can be identified.

## Guiding Principles

It is the vision of the ICoE:CR that work undertaken within this framework is built upon a strong relationship between researchers and practitioners. Thus, any research that is conducted must incorporate an active partnership with practitioners from the outset, so that practice can be enhanced through a robust evidence base.

Thus, the International Centre of Excellence in Community Resilience is underpinned by the following principles:

- **Listen first** – Understand and abide by the interests and needs of stakeholders before offering options that can enhance resilience.
- **Local solutions** – Communities generate innovative ideas to local and regional challenges. The ICoE:CR will encourage and support local solutions.
- **Ownership** – Facilitate activities and research that enhance resilience in a manner that is adopted and owned by the user. Individuals, organisations and communities must be responsible for their own preparedness.
- **Purposeful outcomes** – Each engagement with the community will have a clear purpose and measurable outcome. The ICoE:CR will make a point of encouraging all members to value the time and energy of individuals who make themselves available for research, or who make an effort to get themselves or their community prepared or connected through enhanced practice.
- **End-user focused** – Preparedness solutions developed from international best practice and from empirical research findings will be easy for communities to adopt and use. Messaging will be delivered to convey positive outcome expectancies.
- **Evidence Informed** –The ICoE:CR will draw upon current good practices in the implementation of research findings and either adopt or adapt these as appropriate. Where available, these good practices will be complemented by a robust suite of metrics in order to better understand cause and effect, thus aiding decision making.
- **Innovation** – Seek out and try new ideas to enhance resilience where they are well reasoned, planned and meet the needs of the community.
- **Proactive engagement** – Seek out stakeholders to work with and actively follow up on inquiries and opportunities to engage. Researchers must actively engage stakeholders from research inception to implementation and beyond.
- **Inclusiveness** – Seek the input from a cross section of the community during the engagement process of any research or practitioner initiative, and ensure people affected by outcomes have the opportunity to participate in the process.
- **Transparency** – Act as honest brokers with communities and any potential research participants or collaborators. The actions and intentions of members of the ICoE:CR will be transparent.
- **Relationship building** – Foster relationships with community and organisational leaders with the aim of building trusting and honest partnerships between the community, practitioners, and researchers.
- **Ethics** – Researchers will act in a way that is in line with the ethical codes for research with human participants as outlined by their universities or organisations.
- **Reporting** – At six monthly intervals (early February and August), members will report to the co-ordinating organisations with a 250-500 word summary of activities that fall under the ICoE:CR. A reporting template will be set up for this purpose, and will include a list of outcomes, findings and publications. These reports will help form a research, practice and network database for the ICoE:CR. Activities will be collated into an annual report (released in March), and highlights also reported in bulletins such as the JCDR newsletter.

## Research Direction

Disaster Risk Reduction (DRR) has been identified as a research area of critical strategic importance to New Zealand, with outcomes that directly support the achievement of Government- endorsed strategies. It is recognised that research needs to be highly collaborative, to provide the framework for integrating research and funding across agencies and disciplines, together with research users, to achieve the aim of a New Zealand society that is more resilient to natural hazards.

The direction of research will be guided by the Natural Hazards Research Platform Strategy<sup>2</sup> that is closely linked with the national Civil Defence Emergency Management (CDEM) strategy, which has been identified as providing the Government's strategic direction in Emergency Management. Given the broad hazard and risk exposure in New Zealand, effective civil defence emergency management is critical. The national CDEM strategy articulates the Crown's vision for a 'Resilient New Zealand: communities understanding and managing their hazards'. The approach to realising the vision of a Resilient New Zealand derives from the CDEM Act (2002)<sup>3</sup> and requires a comprehensive risk management approach in addressing the consequences of hazards across the four elements of emergency management — Reduction, Readiness, Response, and Recovery. By definition, comprehensive risk management must be evidence-based and so is reliant on well-promoted, coordinated and accessible hazards and disaster research. Enhancing resilience requires the development of new tools, knowledge and understanding, and a range of capabilities across a wide range of disciplines.

## Enhancing Practice

Research and practice established through the objectives of the ICoE:CR is not intended to be prescriptive and is therefore applicable to all. Rather it is intended to challenge traditional thinking by providing a smorgasbord (or diversity) of options that may be tailored to meet the needs of communities intent on building their levels of resilience. The intent is that ICoE:CR will create a knowledge bank of research, practice and metrics, and make these available to organisations that wish to participate. These participating organisations would then be free to engage to the extent that they gain value from the collaboration, taking into account the ICoE:CR guiding principles. During the initial stages of the ICoE:CR, metrics will be identified and developed to measure the enhancement of this emergency management practice through application of the research and activities of the ICoE:CR.

## Activities of the ICoE:CR

In line with the core goals of the ICoE:CR, the JCDR has initiated a number of activities including:

- On-going collaborative research between WREMO and research partners
- The World Social Science Fellows Seminar, Wellington and Christchurch, NZ, December 2013, 'Decision-making under conditions of uncertainty'. In partnership with ISSC, ICSU, UNISDR, RIA Working Group of IRDR, ICoE Taipei and START
- Massey University/GNS Science Emergency Management Summer Institute, March 2014, Wellington, NZ
- EU Community Resilience Workshop, April 2014, Wellington, NZ
- The 7<sup>th</sup> Australasian Natural Hazards Management Conference, September 2014, Wellington, NZ

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<sup>2</sup> NZ's Natural Hazards Research platform is a multi-party research platform funded by the Ministry of Business, Innovation and Employment, that is 'dedicated to increasing New Zealand's resilience to Natural Hazards via high quality collaborative research.' (<http://www.naturalhazards.org.nz/NHRP>)

<sup>3</sup> The Civil Defence Emergency Management Act (CDEM Act) 2002 can be found at <http://legislation.govt.nz> with amendments applied in March 2012.

## Background Information

### What is the IRDR?

The Integrated Research on Disaster Risk (IRDR) is a decade-old, interdisciplinary research programme sponsored by ICSU in partnership with the International Social Science Council (ISSC), and the United Nations International Strategy for Disaster Reduction (UN-ISDR). It is a global initiative seeking to address the challenges brought by natural hazard events, mitigate their impacts, and improve related policy-making mechanisms<sup>4</sup>. The IRDR Programme has three research objectives:

- 1) the characterisation of hazards, vulnerability and risk,
- 2) understanding decision-making in complex and changing risk contexts, and
- 3) reducing risk and curbing losses through knowledge-based actions.

To meet these objectives, IRDR has established four working groups, which bring together diverse disciplines to conceptualise new approaches to disaster risk reduction. These are Forensic Investigations of Disasters (FORIN), Risk Interpretation and Action (RIA), Disaster Loss Data (DATA), and Assessment of Integrated Research on Disaster Risk (AIRDR).<sup>5</sup>

### What are the International Centres of Excellence?

Through the IRDR Scientific Committee and the relevant National Committees, a limited number of IRDR International Centres of Excellence (ICoE) are being established to provide regional and research foci for the IRDR. Each ICoE embodies an integrated approach to disaster risk reduction that directly contributes to the IRDR Science plan (2008) and objective.<sup>6</sup> As outlined in the IRDR Strategic Plan (2013-2017), “each ICoE will collaborate to provide global contributions towards achieving the IRDR legacy and, in particular, enable regional scientific activities through geographically-focused contributions based on more localised inputs and by being visible centres of research to motivate participation in the IRDR programme.”<sup>7</sup>

Since the request made in 2012 for IRDR International Centres of Excellence, the following other International Centres of Excellence have been established:

- Hazards and Vulnerability Research Institute, University of South Carolina
- Academia Sinica/START International, Taipei, Taiwan

Applications are currently being assessed by IRDR for other potential International Centres of Excellence.

### What is the JCDR?

The Joint Centre for Disaster Research, opened in December 2006, is a joint venture between GNS Science and Massey University within the School of Psychology, based at the Wellington campus of Massey University. The centre undertakes multi-disciplinary applied teaching and research aimed at:

- 1) Gaining a better understanding of the impacts of natural, man-made, and environmental disasters on communities;
- 2) Improving the way society manages risk; and
- 3) Enhancing community preparedness, response to, and recovery from the consequences of natural, man-made, and environmental hazard events.

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<sup>4</sup> <http://www.icsu.org/what-we-do/interdisciplinary-bodies/irdr>

<sup>5</sup> <http://www.irdrinternational.org/>

<sup>6</sup> <http://www.irdrinternational.org/wp-content/uploads/2011/06/IRDR%20Science%20Plan.pdf>

<sup>7</sup> <http://www.irdrinternational.org/2013/04/15/irdr-strategic-plan-2013-2017>

The JCDR Director reports to a management board consisting of three Massey University and three GNS Science staff. Both of the JCDR's partner organisations (Massey University and GNS Science) are members of the New Zealand Natural Hazards Research Platform, which co-exists as IRDR New Zealand. The Natural Hazards Research Platform has a standing Strategic Advisory Group (SAG), with Terms of Reference covered by the Platform Partnering Agreement. The SAG, which covers all platform programmes held by GNS Science, NIWA, University of Canterbury, Massey University, University of Auckland and Opus, has assisted with, and endorsed, the strategy elements detailed above. The Natural Hazards Platform also has a Technical Advisory Group to assist in the process of ensuring that a robust research programme is designed and implemented.

The JCDR has undertaken teaching and research by its own staff, affiliated graduate students, contracted researchers and affiliated research partners since its establishment in 2006. Over the last five years grants and core funding has equalled over US\$5 million.

Key areas of current research include:

- Emergency management planning
- Community resilience
- Land-use planning for disaster risk reduction
- Long-term welfare issues in recovery
- Role of public education in disaster preparedness, response and recovery
- Warning systems and evacuation planning
- Science advice and risk communication
- Health sector emergency management
- Community involvement in emergency management
- Psychosocial recovery, resilience, and coping mechanisms to disasters
- Psychological consequences of exposure to disasters
- Use of appropriate technology for emergency management
- Support systems for disaster management

As well as the wide range of teaching, research and engagement activities outlined above, personnel at the JCDR have been involved in advising government organisations in key areas of policy. These have included:

- Psychosocial recovery following the 2010-2011 Canterbury earthquakes
- Pandemic response planning to the H1N1 event
- Community resilience indicators
- Public education design and evaluation

This experience will be well utilised in the ICoE:CR, to enhance policy across the region and nation through the application of research findings, while also meeting one of the IRDR's core principles to make science available and usable to political decision makers and government policy advisors.

The JCDR has an extensive range of national and international partnerships that will be incorporated into the ICoE:CR, including affiliates from University of Canterbury, New Zealand Red Cross, University of Otago, Victoria University of Wellington, University of Auckland, University College London, East Tennessee State University, University of Oklahoma, University of Hawaii, Centre for International Climate and Environmental Research (Norway), University of Central Florida, Museum of New Zealand Te Papa Tongarewa, University of Tasmania, Colorado State University, the National Institute of Water and Atmospheric Research (NIWA), University of Central Queensland, California State University at Long Beach, and University of Moratuwa.

## Who are WREMO?

The Wellington Region Emergency Management Office (WREMO) provides civil defence emergency management support for the nine local councils of the Wellington region, and was established in July 2012. The creation of WREMO presented an opportunity to rethink the region's approach to emergency management, resulting in an increased emphasis on enhancing levels of resilience in communities by improving the ability to anticipate risks, limit the impacts of those risks, and bounce back rapidly from any emergency event. The structure of the organisation is unique in the sector in that staffing and resources are weighted towards enhancing community resilience, in addition to the traditional approach of providing operational response capability. Consequently, a Community Resilience Strategy was developed to provide a set of guiding principles for engagement, strategic objectives to enhance resilience, and relevant tools for emergency management advisors. The organisational structure of WREMO and its Community Resilience Strategy<sup>8</sup> spearhead a fresh and cutting-edge approach for the emergency management sector to consider.

The overarching aim of the Community Resilience Team (CRT) is to facilitate the ownership of preparedness and to increase social capital amongst the region's stakeholders. A core principle of this Strategy is the idea that individuals, organisations and communities have varying levels of interest, knowledge, resources and organisational capacity. Consequently, they will engage with emergency management in ways that are appropriate for them. There is no single pathway or solution that leads to enhanced resilience. To produce positive resilience outcomes, the CRT takes a multifaceted approach, actively engaging with communities, supporting local ideas and existing structures, and facilitating various opportunities for increased preparedness and connectedness.

Understanding and supporting the ideas of the region's communities is fundamental to the guiding principles of this Strategy. Once a community's interests are understood, a diverse set of products, services and networks are drawn upon to build capacity, increase connectedness, and foster cooperation. This Strategy emphasises the development of an appropriate preparedness solution for each stakeholder based on their interest and level of engagement; it is a multifaceted approach to build adaptive capacity and to create and/or strengthen relationships. It also intends to harness the benefits of existing tools whilst exploring new opportunities and models. The CRT will be the primary facilitator in areas directly related to emergency preparedness, and will act as a networker to provide opportunities that lead to more connected communities. Specifically, the CRT will facilitate outcomes that directly build capacity and foster cooperation that lead to improved preparedness while supporting non-emergency related community activities that increase connectedness.

As a coordinating organisation of the ICoE:CR, WREMO offers both a pathway through which to examine and evaluate the implementation of leading research into societal resilience and preparedness, whilst also offering an opportunity to be a truly connected and resilient capital city. One of the primary objectives of WREMO's strategic plan is to foster cooperation via knowledge generation and transfer between the universities (including Massey University, Victoria University, Wellington Institute of Technology, University of Canterbury, University of Otago), research institutes (including GNS Science, NIWA, MetService), and companies that are at the forefront of disaster, hazard, and emergency management research in the region. Through this, WREMO aim to promote the region as a 'Global International Centre of Excellence in Disaster Risk Reduction and Community Resilience Building'. In partnership with the Joint Centre for Disaster Research, this will sit within the ICoE:CR, enabling leading edge implementation of research outcomes into emergency management and disaster preparedness practice, while also fostering an environment for world-class research into community resilience at the local and regional level, across and within organisations.

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<sup>8</sup> Community Resilience Strategy, Wellington Region Emergency Management Office, 2012.  
<http://www.getprepared.org.nz/sites/default/files/uploads/Community%20Resilience%20Strategy%202012.pdf>.