



NEW ZEALAND ASSOCIATION FOR IMPACT ASSESSMENT

# Natural disasters

Impact assessment for sustainable recovery

Annual conference, 24-25 November 2011  
Lincoln University, Canterbury

Further information: [www.nzaia.org.nz](http://www.nzaia.org.nz)



New Zealand Association for Impact Assessment

*Natural Disasters: Impact Assessment for Sustainable Recovery*

## **PROGRAMME**

Lincoln University, Lincoln, Canterbury  
24<sup>th</sup> – 25<sup>th</sup> Nov 2011

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## 1. Acknowledgements

The organising committee wishes to acknowledge and thank the following individuals and organisations for their generous support and involvement:

Lincoln University

The speakers

Richard Morgan (Chair, NZAIA)

## 2. Purpose of the conference

The purpose of all forms of impact assessment (such as the AEE process under the Resource Management Act) is to identify the likely consequences of important decisions for people and communities, and for the bio-physical environment, so that better decisions can be made. To that end, approaches, methods and techniques have been developed by practitioners around the world for use in many different situations. Post-disaster impact assessment is an area of application that has become prominent overseas in the last decade, and with this conference we want to see what this approach has to offer in the New Zealand context.

Recent experience in NZ suggests that systematic application of IA tools and methodology has not really occurred to any great extent in response to natural disasters such as the Christchurch earthquakes. If IA is to be applied in disaster situations, what (if any) aspects of AI tools and methods do we need to modify to ensure that IA is used appropriately and effectively in future disaster situations?

This conference seeks to explore how impact assessment thinking can contribute to current and future post-disaster/disaster recovery activities, in particular considering to what extent impact assessment can provide:

- a better understanding of the scope, nature and complexity of the impacts of a disaster;
- a way to identify stakeholder and community priorities in immediate disaster recovery activities;
- a means to identify potential impact types if similar events were to occur in other centres, allowing authorities and communities to reflect on strategies to cope with immediate issues;
- a means for helping develop strategic responses to recovery needs;
- a framework for ensuring ongoing assessment in uncertain environments.

In answering the above questions we will bear in mind some of the following aspects of IA:

- In 'normal' circumstances, IA can be multi-dimensional: social impacts, environmental impacts, cultural impacts, economic impacts, .... sometimes applied separately and sometimes in an integrated manner. What is most appropriate in disaster situations?
- IA is influenced by the time-frame over which consequences are examined – short-term, medium-term, long-term; with an emphasis on direct consequences and/or indirect consequences and/or long-term cumulative consequences. Does the temporal focus shift in disaster situations?
- IA applications are influenced by a variety of conceptual frameworks: e.g. social wellbeing framework in SIA, determinants of health framework in HIA, ... particular concepts in economic assessment. Are these frameworks still just as applicable in disaster situations, or do they require modification in order to be useful?
- IA applications are influenced by certain process characteristics: e.g. initial scoping of issues; profiling of the existing situation; baseline conditions; permitted baseline of effects; ..... Are these characteristics all still appropriate in disaster situations? Do some require modifying?
- Good IA is informed by lessons from elsewhere and from the past – comparison case knowledge: is such comparison case information and insight available for similar disasters? How comparable?
- IA is usually applied in ex-ante (predictive) mode, but sometimes in ex-post (evaluative) mode. Do both modes have a role to play in disaster situations?
- IA applications involve a variety of specific tools and methods: analytical tools with benchmark values (like Sustainability Appraisal); modelling for complex system analysis to facilitate social learning (DSS); participatory methods (as in SIA or HIA); etc. Are these tools and methods still applicable in disaster situations? Do some of them require modifying or customising to post-disaster circumstances?

### 3. Programme

Thursday 24th November		
8.45am		Registration: Stewart Building Foyer
9.20am		Conference opening
9.30am		Keynote presentation: <b><i>International trends in post-disaster impact assessment</i></b>
Room S2		<p>Charles Kelly Benfield Hazard Research Centre, UCL, UK</p> <p><i>Normal and rapid assessment of social and environmental impacts</i></p>
10.30am		Break
11.00am	1	<b><i>The role of IA in the context of major disasters</i></b>
Room S2		<p>Nick Taylor Taylor Baines &amp; Associates</p> <p><i>Impact Assessment in the Context of Major Disasters: opportunities and requirements</i></p>
		<p>Anna Stevenson Canterbury DBH Christchurch CC</p> <p><i>Planning for a healthy, sustainable and resilient future: the Integrated Recovery Planning Guide</i></p>
12.30pm		Lunch
2.00pm	3	<b><i>Embedding IA in resilience planning and response and recovery planning (Workshop)</i></b>
Room D6		<p>Ljubica Mamula-Seadon Ministry of Civil Defense &amp; Emergency Management</p> <p><i>Embedding IA in recovery planning from a MCDEM perspective – IA inputs needed</i></p>
		<p>Bob Bach Centre for Homeland Defense and Security, Naval Postgraduate School, USA</p> <p><i>How consideration of community resilience might influence our approach to embedding IA in recovery planning</i></p>
		<p>James Baines Taylor Baines Associates</p> <p><i>Workshop focus and questions for group discussion.</i></p>
3.00pm		Tea
		<i>Break out groups</i>
4.00pm		<i>Workshop conclusions</i>
5.00pm		Posters: Stewart Building Foyer
6.00pm		NZAIA A.G.M. – with drinks and nibbles: D6
7.00pm		Dinner: Stewart Building Foyer

Friday 25th November		Programme	
9.00am	3	<b>Rapid Assessment: contribution to immediate response</b>	
Room S2		David Johnston Joint Centre for Disaster Research, and Institute for Geological and Nuclear Sciences	<i>Recent experience of rapid assessment exercise. What happened? What could be done differently in hindsight?</i>
		Carolyn Gallagher Christchurch City Council	<i>From frenzy to flourish - Getting a grip on community impacts in the first three months of recovery</i>
10.30am		Break	
11.00 am	4	<b>IA in support of recovery plans and strategy</b>	
Room S2		Diane Turner Christchurch Earthquake Response Authority	<i>Post-disaster information needs and approaches to evaluating alternative strategies/plans</i>
		James Newell Monitoring and Evaluation Research Associates	<i>Summary of population and employment effects of Christchurch Earthquakes within IA context</i>
12.30 pm		Lunch	
1.30 pm	5	<b>Strategic assessment: tools, methods and case studies related to recovery planning</b>	
Room S2		Tony Moore Christchurch City Council	<i>A Sustainability Assessment of the Christchurch Central City Recovery Plan. How and why was it done? What did it achieve? With the benefit of hindsight, could it be done better?</i>
		Bryan Jenkins Waterways Centre for Freshwater Management, University of Canterbury/Lincoln University	<i>Strategic planning and assessment – resilience approach, strategic planning, liquefaction risk and future strategy.</i>
3.00pm		Break	
3.30 pm	6	<b>Community involvement in local recovery planning</b>	
Room S2		Mark McEntyre Peterborough Village Pita Kaik Inc Society	<i>Experiences of a specific community's response - challenges, needs for skills and resources</i>
		Brian Parker Leanne Curtis Canterbury Communities' Earthquake Recovery Network	<i>Community-led practical and strategic disaster response engagement</i>
4.45 pm		Conference synthesis	
5.00 pm		Conference Close	

## 4. Posters

**Community Profiles** - The development of local wellbeing and social capital indicators in a post disaster environment.

Matt Walters

Strengthening Communities Advisor

Christchurch City Council

**Burying uncertainty:** the challenge of standard EIA practice

Dr Ronlyn Duncan

Lecturer in Water Management

Department of Environmental Management

Lincoln University

**Lincoln University:** Environmental management reaching out to the country

Katie Collins (Lincoln University), Aminath Nazra (Lincoln University), Hamish Rennie (Lincoln University), and Adrienne Lomax (Waihora Ellesmere Trust).

## 5. Useful websites

[www.cancern.org.nz](http://www.cancern.org.nz)

[www.cera.govt.nz](http://www.cera.govt.nz)

[www.climate.mssl.ucl.ac.uk](http://www.climate.mssl.ucl.ac.uk)

[www.dia.govt.nz](http://www.dia.govt.nz)

[www.mera.co.nz](http://www.mera.co.nz)

[www.nzaia.org.nz](http://www.nzaia.org.nz)

[www.strongerchristchurch.govt.nz](http://www.strongerchristchurch.govt.nz)

[www.waterways.ac.nz](http://www.waterways.ac.nz)

[www.peterboroughvillage.org.nz](http://www.peterboroughvillage.org.nz)

## **6. About NZAIA**

The purpose of the New Zealand Association for Impact Assessment is to promote the use, and better practice, of impact assessment.

The Association's activities include:

- Promoting the use of impact assessment to inform decision-making in New Zealand.
- Supporting the development of high ethical standards in impact assessment practices.
- Keeping practitioners in touch.
- Running conferences, training courses, and regional meetings on impact assessment themes.
- Representing New Zealand practitioners at the international level.

NZAIA evolved out of the ASA (and before that the SIA Network) and maintains an active social assessment component. Since incorporating as NZAIA, the Association has been developing a wider membership, to reflect the diverse community of impact assessment practitioners. Its activities now embrace the full range of IA practices.

NZAIA is an affiliate of the International Association for Impact Assessment (IAIA), and personal membership of both associations is encouraged.

[www.nzaia.org.nz](http://www.nzaia.org.nz)

or contact The Secretary NZAIA(Inc.) P.O. Box 2581, Wellington, New Zealand

[sec@nzaia.org.nz](mailto:sec@nzaia.org.nz)

### **The objectives of impact assessment**

- To ensure that social and biophysical considerations are explicitly addressed and incorporated into decision making processes.
- To promote social justice and cultural integrity in the management of natural resources.
- To ensure a long-term perspective on managing the effects of proposals.
- To protect the capacity of natural systems and promote sustainable development.

### **Te Kahui Kaitiaki**

The NZAIA recognises the pivotal role of the Tangata Whenua of Aotearoa in relation to the kaitiakitanga of the mauri of Papatuanuku and Ranginui (the sustainable life-giving force of all elements and living things). Maori wisdom is given acknowledgement in the association through the Te Kahui Kaitiaki - a Maori Caucus - which has been established to assist in the continued growth and development of the NZAIA and the improvement of impact assessment practice at all levels of the organisation.

## **7. About the speakers**

### **Charles Kelly**

Charles Kelly has over 30 years of field experience in humanitarian assistance programs dealing with compound disasters, droughts, food insecurity, insect infestation, hurricanes, epidemics, floods, war and other emergencies in developing countries. Over this career Kelly has performed field and senior management tasks in over 18 disaster response operations. Recent professional work has included post-disaster environmental impact assessments and integration of environmental issues into recovery in Haiti, Pakistan and Indonesia. Kelly was one of the developers of the Rapid Environmental Impact Assessment methodology and supported the development of environmental support capacities for the Global Shelter Cluster and development of the Green Relief and Recovery Toolkit. Kelly has worked in over 60 countries and published over 45 articles on disaster management, including on damage, needs, and rights assessment, disasters and mega cities, disaster management systems and disaster-environment linkages. An affiliate of the AON Benfield UCL Hazard Research Centre, Kelly is a member of the International Research Committee on Disasters, the Society of Risk Analysis, The International Emergency Management Society and ProAct Network. Kelly was last in Canterbury in April as a speaker for the Resilient Futures: Supporting Recovery in Greater Christchurch at Lincoln University.

### **Nick Taylor**

Nick Taylor is a founding Director in Taylor Baines & Associates. With a PhD from the University of Canterbury he has been involved since the early 1980s in development of approaches and techniques for social assessment, including applications of soft systems techniques. A major text on social assessment (Social Assessment: theory, process and techniques) was first published in 1990, revised in 1995 and 2004 and recently reprinted. Nick has particular skills and experience in assessing agriculture and land use change, understanding rural and urban communities, tourism planning, and applying social science to natural resource management issues. He is active in social assessment networks and training including the New Zealand Association for Impact Assessment and committees of the International Association for Impact Assessment, for which he is currently President. He is a Senior Adjunct at the University of Canterbury and is on the Advisory Board of the Social Science Research Centre at the University, and on the Social Science Committee of the Royal Society of New Zealand.

### **Anna Stevenson**

Anna Stevenson trained at Auckland Medical School in the early 90s and has worked in clinical medicine all over New Zealand. Her interest in public health was sparked by the many preventable diseases and health issues she encountered in general practice clinics. Anna is employed by the Christchurch City Council and by the Canterbury District Health Board to help both organisations consider how to work in a way that keeps people well rather than one that perpetuates a 'dis-ease' cycle.

### **Ljubica Mamula-Seadon**

Ljubica has an extensive experience in natural hazards risk management, urban resilience and integrated planning. She is a member of a number of international and national risk management and environmental management bodies and has researched, taught and published in the areas of systems and planning, social and built environment impact assessment and management, post-earthquake recovery and emergency management. Ljubica participated in

the recovery and reconstruction programmes of five major earthquakes and is currently a Team Leader at the Ministry of Civil Defence & Emergency Management, looking after the Ministry's Recovery, Infrastructure, Welfare and Resilience programmes. Ljubica is a former President of the NZ Chapter of the Environment Institute of Australia and New Zealand.

### **Dr Robert Bach**

Dr. Robert Bach is currently on the faculty at the Center for Homeland Defence and Security at the Naval Postgraduate School and works with the Institute for Public Research. Dr. Bach has served as a strategic consultant with the U.S. Department of Homeland Security and his current research focuses on community participation in emergency preparedness, and strategic planning. Formerly, he was a professor of sociology at the New York State University and a member of the Bill Clinton's administration. He is in New Zealand as the director of the multi-national project on community resilience (US, UK, Sweden, Canada, Australia, New Zealand) that is aimed at providing information for the governments of those countries on community resilience policies.

### **James Baines**

James Baines is a founding Director of Taylor Baines & Associates. With an honours degree in chemical engineering, he complements a background in natural resource management and policy with skills in social assessment. He has put considerable effort into developing the analysis and presentation of results from social assessment. This is closely related to work applying soft systems methodology to a range of research and consulting projects. In the past few years, he has pursued interests in more integrated assessment, linking different assessment disciplines as well as linking technical assessments with stakeholder participation. Over twenty years of applied social research and social assessment practice his interests have spanned at various times solid waste management, waste water treatment and disposal, gambling and casinos, harbour developments, marine farming and water-based recreation, prisons and shopping centre developments, school networks, energy infrastructure developments (wind farms and hydro-electric schemes), and urban structure planning. Recently, he has led several science-sector evaluations for the Ministry for Research, Science and Technology. James is experienced in the preparation and presentation of formal evidence in various judicial settings. He has also been contracted to provide teaching and in-service training, in New Zealand and in Asia. In 2002, along with fellow director Nick Taylor, he was engaged by the UNDP to assist the Federal Government of Malaysia in institutionalising Social Impact Assessment in various levels of government in that country. Between 2000 and 2006, James was the section coordinator for the Social Impact Assessment (SIA) Section of the International Association for Impact Assessment (IAIA) and remains active in the organisation.

### **Dr David Johnston**

Dr David Johnston is Associate Professor and Director of the Joint Centre for Disaster Research at Massey University. His core area of expertise is in the social and economic impacts of disasters, warning systems, and hazards education design and evaluation. In addition David's work focuses on improving individual and community preparedness, and supporting effective response and recovery from disasters.

**Carolyn Gallagher**

Carolyn Gallagher is the Community Support Manager at Christchurch City Council. With extensive experience in New Zealand and Australian health, government and education sectors, Carolyn's current role covers change management, disaster welfare response and recovery and community engagement.

**Diane Turner**

Diane Turner is the General Manager, Strategy, Planning and Policy for Canterbury Earthquake Response Authority. Previously Chief Executive of the Whakatane District Council, Diane has considerable experience working directly with communities as well as local and central government. Diane has also worked in disaster recovery with leadership roles in both the Bay of Plenty floods of 2004 and the Matata debris flow of 2005. Her early career was as a town planner and in recent leadership positions Diane has led a range of community development and infrastructural projects. She has held a number of leadership positions within the Bay of Plenty in Civil Defence and Rural Fire and the central and local government collaboration network, COBOP.

**James Newell**

James is a researcher with more than 20 years experience mainly as an independent researcher working with central, local government and NGOs on issues to do with the labour market, migration, population change and development with a particular interest in understanding regions and their development histories. Working with the Population Studies Centre at the University of Waikato he developed the first full region migration accounting model in 2000 and has since extensively refined and extended that initial work. Working with Kerry Papps and the Labour Market Policy Group, Department of Labour, he developed a New Zealand functional local labour market spatial classification in 2001. His recent work has reflected a growing interest in supply side issues to do with labour market skills and occupational workforces. This has involved mapping the links between population dynamics and migration processes, educational capital accumulation and the labour market which leads into the IPS 2007-2010 FRST programme. James is a past president of the Population Association of New Zealand and has worked for many years on the committee of the NZ Association for Impact Assessment and its predecessor the Association for Social Assessment. He graduated with a Bachelors of Science with (first class) honours in Botany/Biology from Otago University in 1982 and gained a Master of Science (Resource Management/Environmental Science) from Centre for Resource Management, Lincoln/Canterbury Universities in 1984 with additional specialisation in Regional Planning.

**Tony Moore**

Tony more is the Principal Sustainability Advisor for Christchurch City Council. With a strong background in environmental management science, Tony works closely with a range of community, council and academic initiatives to foster sustainable living. He is the recipient of two awards in relation to his sustainability work: NZ Post Local Government Excellence Award 2008 (Society of Local Government Managers) "Sustainability Policy" Waste Minimisation Institute of New Zealand "Best Written Paper 2005 and 2006"

**Professor Bryan Jenkins**

Prof Jenkins has been recently appointed as professorial fellow at the Waterways Centre for Freshwater Management, a joint centre of the University of Canterbury and Lincoln University. Prior to this appointment he was chief executive of Environment Canterbury for more than seven years. Environment Canterbury is the regional council for Canterbury whose responsibilities include natural resource management and regional civil defence. Use was made of strategic planning and assessment for developing the Greater Christchurch Urban Development Strategy and the Canterbury Water Management Strategy.

He was chief executive of the Department of Environmental Protection in Western Australia for seven years. Prior to that he had more than 20 years experience in environmental management consulting throughout Australia, South East Asia, India and China.

He has a PhD in environmental planning from Stanford University, a masters and first class honours degrees in civil engineering from Adelaide University and a master of administration from Monash University.

**Mark McEntyre**

Mark is the Chairperson of the Peterborough Village Pita Kaik Incorporated Society. He is Programme Manager in the School of Art & Design at Christchurch Polytechnic Institute of Technology. Mark also has a professional practice as set designer for theatre and opera. He lives with his partner and 10year old son in Peterborough St central Christchurch.

**Brian Parker**

Brian Parker is as a qualified Primary and Secondary teacher with over 20 years of experience in the classroom as well as a few years as a teacher trainer. He has trained primary and secondary teachers in a private registered NZ provider as well as ESOL teachers when working and living in Japan for 10 years. Some say schools can be the heart of a community and that is possibly what led him to his current work supporting the members of the Canterbury Communities Earthquake Recovery Network (CanCERN) as their Communications Manager. After months of volunteer work for Avondale Residents and CanCERN members he was employed to bring the wealth of information together and has spent a lot of time collating and tracking issues that could be easily presented to the appropriate agencies on behalf of the residents.

**Leanne Curtis**

Leanne Curtis' background is in primary teaching and community development. After a few years of 'intuitive' community-led development in Nelson's Victory Village, her family moved to Christchurch and she undertook study in this area which was interrupted by the September earthquake. Since then she has been leading the Avonside Community Group and working for Canterbury Communities Earthquake Recovery Network (CanCERN) as their Relationships Manager. In that role she has had the privilege of seeing the layers of recovery from many perspectives and acting as translator to make sure what is happening for residents is as good as it can be.