

## **New Zealand Climate Change Centre Conference (NZCCC)**

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Kelly is a postgraduate student undertaking a Master of Resource Studies. Her thesis topic relates to enhancing the adaptive capacity of coastal fishing communities in the face of climate change.

## Sea-level Rise: meeting the challenge

The NZCCC conference for 2012 was held in Wellington at the Museum of New Zealand Te Papa Tongarewa from the  $9^{th} - 10^{th}$  of May. Delegates included a balanced mix of scientists, practitioners, government representatives, planners, developers, and researchers. The goals of the conference were to present the latest science on sea-level rise relating to climate change and to provide a synthesis of current projections discussing the uncertainty that surrounds them. Other goals were to identify the anticipated impacts of sea-level rise on the New Zealand coast and infrastructure and to discuss whether adaptive risk management will be sufficient for adaptation. The final goals of the conference were to stimulate discussion on how different stakeholders can work with communities to build resilient futures and to share approaches undertaken to plan for the future of coastal systems.

The conference was opened with a kakakia, mihi whakatau, and waiata, giving the conference a warm Kiwi feel. Celia Wade-Brown, the Wellington Mayor, then gave the opening address before David Wratt, Director of NZCCC and Conference Convener, began his role as Principal Chair. The first speaker of the day was John Church from Australia who spoke about current sea-level rise projections, their uncertainty, and the role of thermal expansion and ice melt in contributing to this rise. The following speakers then did well to bring the science down from the global to the national level by discussing the importance of variability, the necesity to consider the consequences of the effects of sea-level rise on other coastal processes, and the need for risk management and adaptive planning. In the afternoon the focus shifted to the social aspects of climate change when Bruce Glavovic of Massey University drew on lessons from other disasters, including the Christchurch earthquakes, the BP oil spill in the Gulf of Mexico, and Hurricane Katrina, for how we might adapt in the future.

On each afternoon dialogue sessions were held where the delegates were divided into three groups. Keynote speakers moved between the three groups after a 30 minute Q and A

period. These sessions provided an opportunity for questions and comments that had arisen in the morning presentations. Each day interesting conversations were generated and presenters were allowed a chance to elaborate on what had already been shared. Following this the keynote speakers returned to the main conference meetings to provide a summary of what had arisen through the dialogue.

The second day was focused on the experiences from overseas, regional and district councils, researchers, developers, and engineers in adapting to the effects of sea-level rise. This began with a video link presentation by Tim Reeder from Environment Agency in the United Kingdom who spoke about the Thames 2100 Project. There was then a series of speakers from local councils and Crown Research Institutes who spoke about, climate change in the Resource Management Act, plans and policies, sea-level rise and Maori coastal communities, hazard mapping, social inertia, stakeholder participation in decision making that goes beyond consultation, the need for greater guidance from central government, and informal and formal adaptation processes. A quite different perspective was then brought to the conference when engineer Richard Reinen-Hamill and developer Leigh Hopper presented on their work in the North Island. Finally an insurance viewpoint was shared when Adam Heath of IAG discussed their experiences in recent times.

Overall the conference achieved its goals and imparted knowledge and information to those who attended. Key messages from the conference were that sea-level rise is a long term issue, one that will continue on past 2100. The need for long term adaptive management and planning is necessary, as is flexibility. While many aspects of climate change remain uncertain, there appears to be consensus that there are three options available when planning for future sea-level rise. These options are accommodate, manage retreat, or protect. How people proceed will likely be based on their values, their investments, and the choices available for adaptation. Darren Ngaru King from NIWA was convincing when he suggested that many of the actions that can be taken to reduce vulnerability and increase adaptability can be started now despite the uncertainty that remains in the scientific details. The range of speakers and perspectives made this conference interesting from start to end and the backdrop of Te Papa made the experience all that much more enjoyable.

Presentation slides from the conference will be uploaded to the NZCCC website: http://www.nzclimatechangecentre.org/