Rethinking Coastal Zone Management in the Light of Climate Change

John Hannah, Emeritus Professor, School of Surveying
University of Otago
also
Managing Director, Vision NZ Ltd.

Abstract: One of the most vexed issues in coastal zone management is the assessment of the likely impacts of future climate change. While there are many factors to consider (e.g., storm frequency and severity, beach profiles, offshore bathymetry, etc.), the long-term change in global and regional mean sea levels is of significant importance. To this end the Intergovernmental Panel on Climate Change (IPCC) Assessment Reports (ARs1-5) have sought to provide best guidance over the past 28 years.

Since the publication of the fifth climate change assessment report AR5 (IPCC, 2013), useful progress has been made in understanding present and future sea level changes, both at a global and at a regional level. However, major uncertainties continue to exist. This presentation will highlight these uncertainties – all of which make planning for the future a very difficult process.

However, local authorities, which in the past have been criticised for their preparation and handling of storm events, now typically take a highly risk adverse approach to the problem. Approaches such as the delineation of coastal inundation zones in which future development is prohibited, are often implemented without due regard to either the potential economic costs or the abrogation of existing property rights. This presentation, using illustrations from the recent storm events in Nelson, will suggest some possible alternative approaches to these issues.