

Opinion: Bracing for the cost of climate change

July 19 2017, by Ilan Noy

Climate change is here to stay, irrespective of how successful the current international efforts are in preventing the direst scenarios through global collaborations.

Climate change will increasingly create severe risks for some of New Zealand's homes, especially because of [sea-level rise](#) and the increased [risk](#) of flooding and coastal storm surges. Under even the most optimistic emission scenarios, global average sea levels will likely rise by around half a metre by 2100 and around one metre or more if high global emissions were to continue. According to estimates by NIWA for the Parliamentary Commissioner for the Environment, there are 43,683 homes within 1.5 metres of the present average spring high tide and 8,806 homes within 50 centimetres.

Currently, there is little evidence home-owners take these risks into account when making residential investment decisions, or developers when constructing new sub-divisions, or that councils have been able to incorporate these risks fully into their own decision-making.

Even if perfect information about future climate risks were available, there is a large body of research that convincingly demonstrates people often make poor decisions under conditions of risk and uncertainty. People can over-react to specific minor but tangible risks while at the same time suffer from amnesia (or denial) about existing risks, and exhibit optimism bias when risks are higher.

Of course, we don't have perfect information about the future, and this uncertainty in our understanding has been exploited by special interests to cast doubt about the consensus on the climate risks we face.

In regions and communities exposed to sea-level rise, storm surges and flooding, increasingly there will be homes that become difficult to insure. Once insurance becomes very costly (or excess becomes very large), the price of these homes is likely to decrease significantly as home loans will no longer be available for potential purchasers. Evidence from international markets suggests that when a risk becomes too high, and therefore uneconomic to insure, insurers withdraw. Internationally, the most common trigger for these withdrawals had been sudden catastrophically costly events that have led to a reassessment of risks by insurers and their own reinsurers. In New Zealand, we are underprepared for this eventuality.

Our main mechanism to deal with natural hazards has been the public insurance offered by the Earthquake Commission. The EQC, however, is not currently structured to deal adequately with these increasing exposures to climate risk, even though the Crown-owned EQC itself is liable to some of these risks. The current proposals to amend the EQC Act will potentially fix some of the weaknesses exposed in our system by the Canterbury earthquakes, but do not point to any clear path forward for our ability to deal with increasing climate risks.

If insurance indeed starts withdrawing from some locations as risks increase, homeowners may lose out, but also local authorities and central government could face very high future costs from the need to provide more protective measures and continued provision of lifeline infrastructure, when managed retreats may be more efficient.

Decisions today will have far-reaching consequences as the seas continue to rise and the patterns of storms and rain continue to change. The

questions that need to be asked now are how to structure our systems and policies so they are flexible enough in the face of this [climate](#) risk and uncertainty, and how adaptation will be funded in an equitable way.

Now is the time to have an informed discussion nationally about where our most vulnerable areas are, how their risks can be managed with the right incentives, how we can transition to more resilient communities, how we can avoid paying an excessively high price for adjustment, and who will pay and how.

Provided by Victoria University

Citation: Opinion: Bracing for the cost of climate change (2017, July 19) retrieved 22 June 2024 from <https://phys.org/news/2017-07-opinion-bracing-climate.html>

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