

## **Sue Roaf: Resilient houses make for resilient people**

Professor Sue Roaf has travelled the world as an architect and renewable energy pioneer so when she says New Zealanders live in poor housing conditions it's worth taking notice.

Dr Roaf is Professor of Architectural Engineering at Heriot-Watt University in Edinburgh and a member of the expert panel for the *Resilient Communities: Doing Better in Bad Times* research programme. She is a strong advocate of resilient houses and combines her design experience with helping people understand how to live comfortably and healthily in their homes.

"New Zealanders live in such poor housing conditions across the board. And I'm talking about the well-off in Auckland along with the not so well off. The houses are leaky, the windows are poor, there's very little insulation. It is a very poor housing stock, which is why my solution is to go one room at a time.

"A lot of people won't be able to sort the whole house, so I suggest creating climate refuges, keeping one room warm at a time with small steps like heavy curtains or secondary glazing. Understand your thermal history, where you spend your time over the day and how best to keep those areas snug. For instance, you might want to change your bedroom into your sitting room if that gets more sun or is easier to keep warm."

There is a strong connection between keeping warm and keeping healthy. "People are adaptable, they can get used to the cold, put on more layers of clothes or stay in bed, but there comes a point where it becomes physiologically threatening and you can end up in hospital or die," she says.

As climate change brings more extreme weather to our shores, Sue says older people on fixed incomes are particularly vulnerable to the rising cost of electricity and insurance. "Making your house more resilient will keep down electricity bills and better prepare you for severe weather events."

She says the Tools developed by the *Doing Better in Bad Times* research are leading edge and transferable to other countries. "I am particularly impressed by the experiential learning and will try to re-integrate that into the Resilient Design Institute in New York and the Scottish Government's programme on climate adaptation.

"This research is valuable because it taps into the experiences of older people who have been through severe weather events. It's not about experts telling people what to do, it's about learning from the experience on the ground.

"And the systems and processes that we put in place now might give us a good foundation for surviving and doing better in bad times."

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