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Setting the scene – the impacts of climate change on communities

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The impacts of climate change on communities

Janet Stephenson

From the **Climate-Adaptive Communities** project of the
Deep South National Science Challenge

LGNZ Climate Change Symposium

THE DEEP SOUTH

Te Kōmata o
Te Tonga

National
SCIENCE
Challenges



Centre for Sustainability
Kā Rakahau o Te Ao Tūroa



Climate-Adaptive Communities research

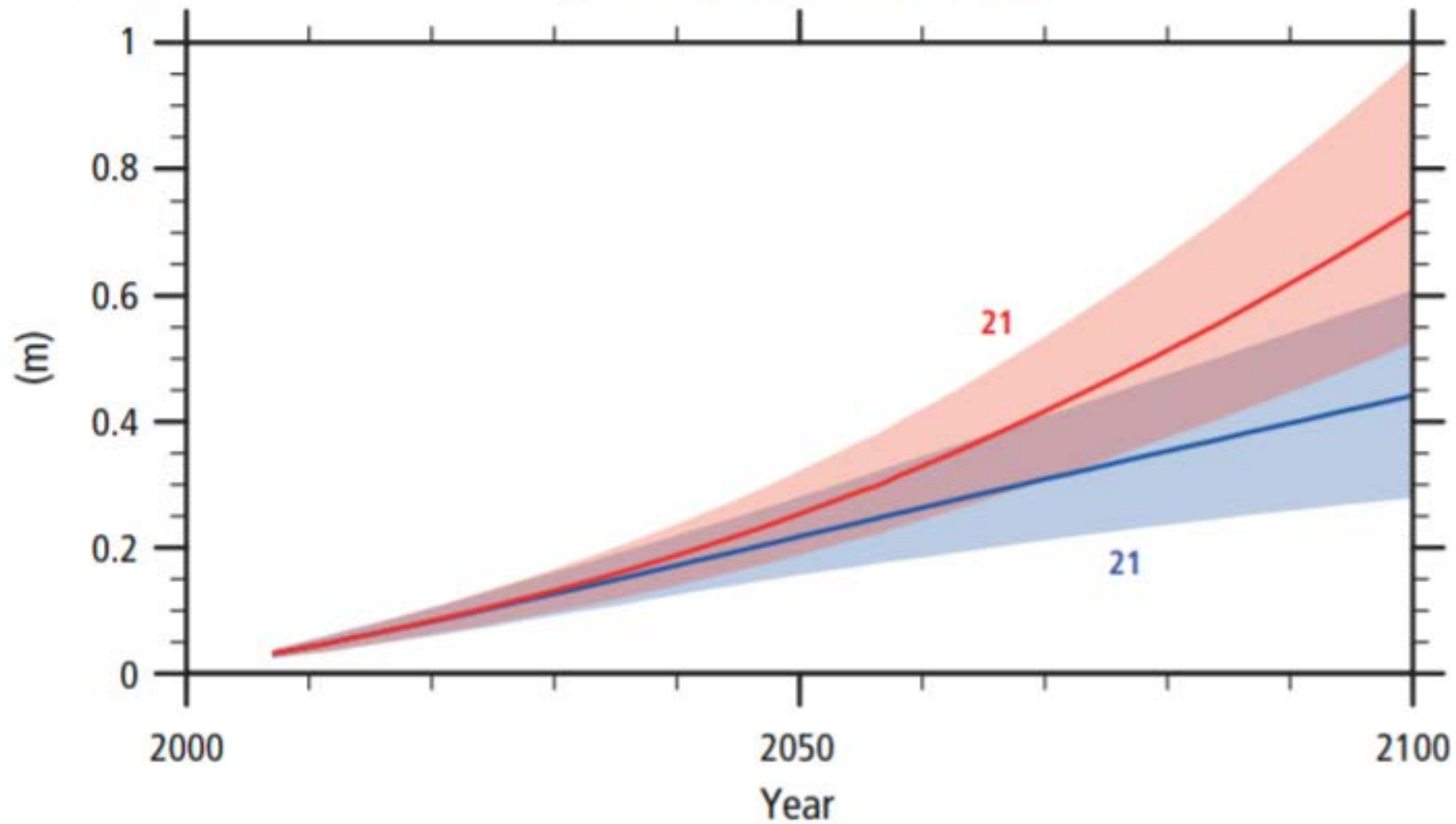


1. How councils are engaging with communities & iwi
2. Emergence of community and iwi action
3. Experiences and needs of those more susceptible to harm

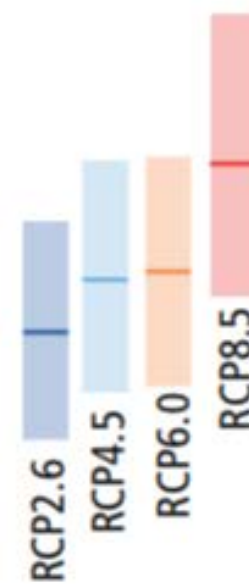
Full findings from first quarter 2019

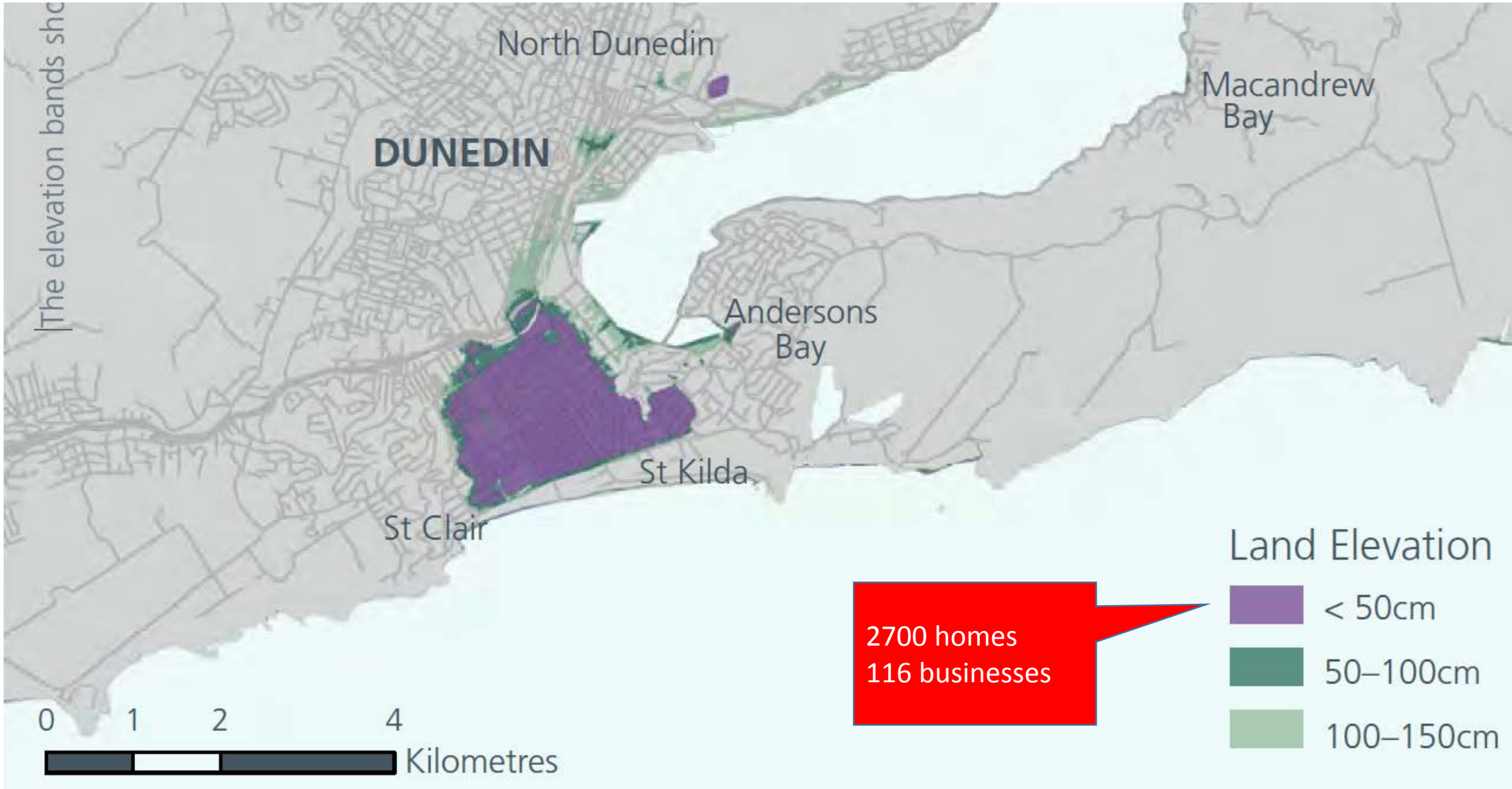
What does climate change
feel like?

Global mean sea level rise (relative to 1986–2005)

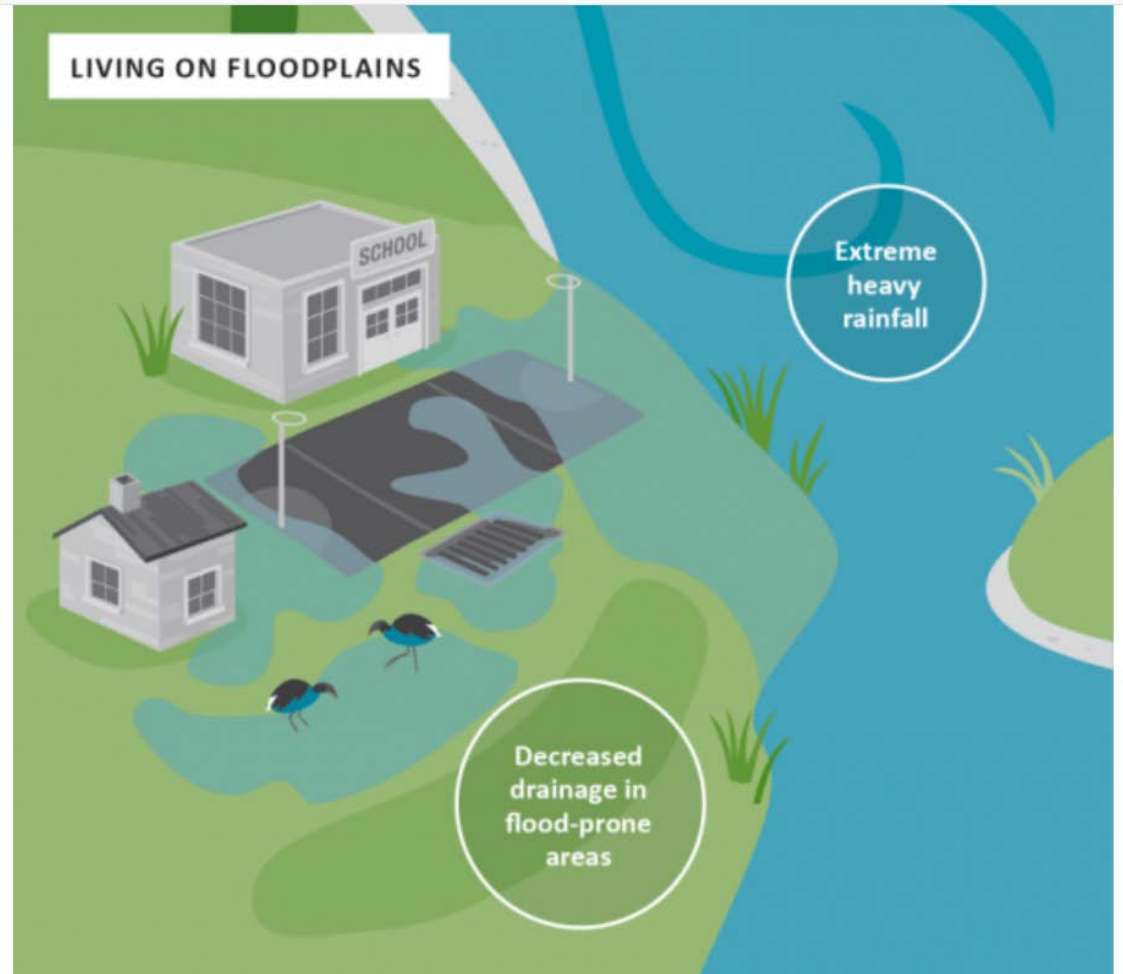
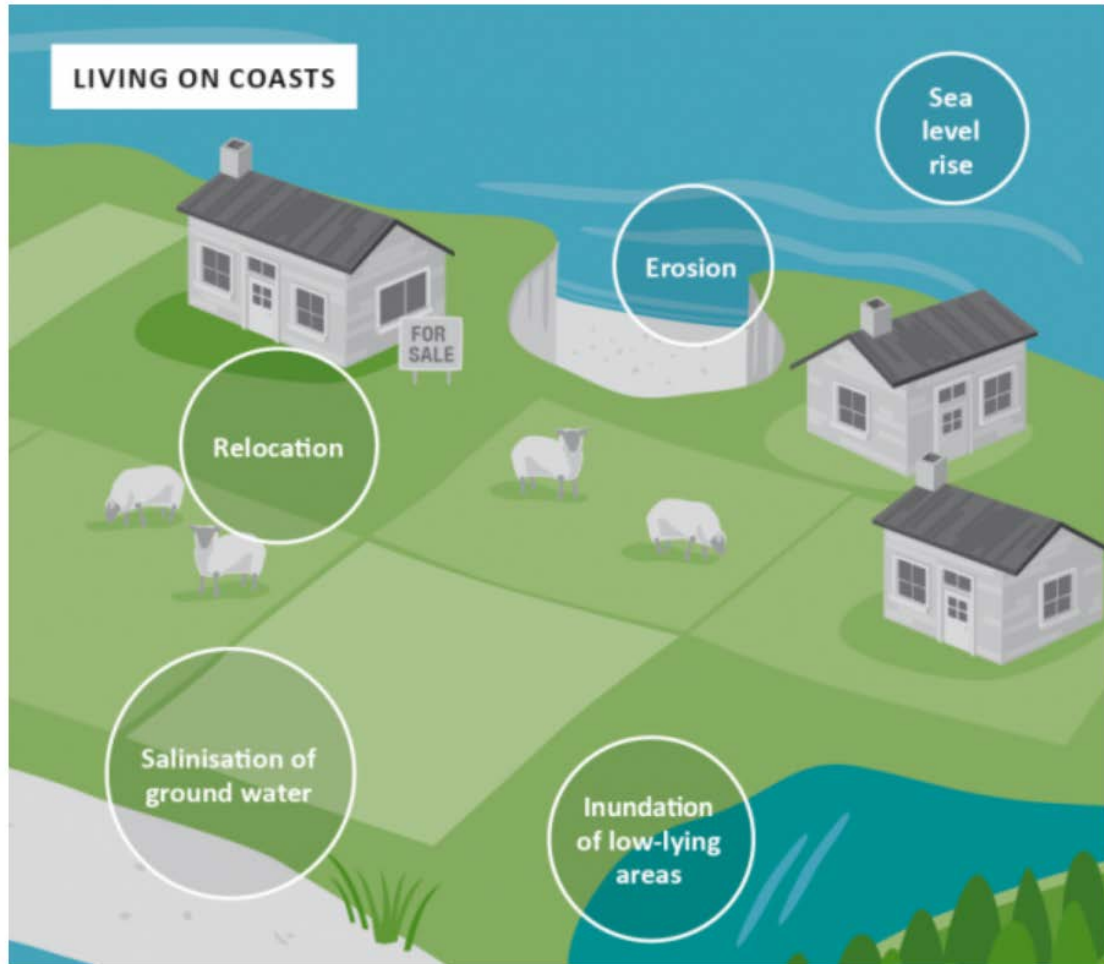


Mean over
2081–2100





Low-lying coastal land in Dunedin. Preparing NZ for Rising Seas, Parliamentary Commissioner for the Environment (2015), p55



Royal Society of NZ (2016) Climate Change Implications for New Zealand





Preliminary results - how are councils responding?

Survey of 13/20 councils highly exposed to sea level rise and increased flooding

We manage risk (legislative mandates)

“The main things really are the identification of the areas at risk. The sort of planning side around that, setting policies around how those areas should be managed going forward.” (District council)

“Risk assessment. We’ll find that they are at high risk and then we have the function of controlling that.”(Regional council)



We provide information and educate

“So, first job is ... to map and have clear and accurate information. The second thing, my function is to appropriately be able to release that information, to land owners, insurers, banks, politicians and then engage on what that information actually means.”

“We need to educate people regardless of whether they want to hear it or not”



Engagement? Just starting

“Where we’re struggling is that we haven’t gone into any outreach into our community to help ground where they need to be...”

“Building understanding, providing tools, providing information, resource to build capacity, for resilience for marae communities. That is work yet to be started.”

“Having the cross sector teams, community, experts and councillors involved, has been good. It’s just been a free and frank exchange. It’s been a proper conversation.”



Cusp of change?



“I think there’s a reasonable degree of awareness in the community out there, in this region, that realise it’s an issue.”

“It’s not going away, it’s only going to get worse and more and more people are going to be affected and [realise] that something does need to happen. That’s half the battle.”

Who will be affected?

“It’s always been the slightly better off people that can afford properties around the coast.”

“So very low social-economic, low levels of education, low levels of employment, and high levels of unemployment. But they’re very passionate about where they live.”

“Yeah quite a high percentage of those in the permanent dwellings around the coast are retired people who are probably don’t grasp the significance of climate change.”

“A lot of the marae communities are close to their Awa, and therefore probably impacted sooner than perhaps the rest of the community.”

Take-aways 1.

1. Uncertainty about timeframes and scale of impact.
2. Uncertainty about roles and responsibilities.
3. Fear of litigation and pushback from communities – damned if you do and damned if you don't.
4. Engagement very patchy, under-resourced, unsure of process.
5. All grappling with how to spread the burden of climate impacts equitably.

Preliminary results - community
and iwi adaptation initiatives

South Dunedin community action

- Many stressed about immediate implications of floods – health, insurance, wet properties, house values
- Implications for small businesses and employment
- Council improving its response and preparedness for events
- Community moving from shock and blame
- Movement both ways to more collaborative approaches
- Now an overarching stakeholder group, working to improve resilience



Ngāi Tahu - climate change strategy

- Based on science as well as gathered observations of environmental changes
- Historic responses to previous environmental changes
- Developing climate change strategy for all of Ngāi Tahu – papatipu rūnaka as well as Ngāi Tahu businesses

“However hazardous it can become or however many risks there are, or whatever happens to it, it’s our land... So ... we have to protect it, we have to live it, so we don’t have a choice.”



Blueskin Resilient Communities Trust

Climate Safe House Project

“A modular, transportable, adaptable, warm and cosy, energy efficient, affordable home. That can replace one dilapidated home in the flood zone, which has no insurance but has a mortgage. And can be moved out of that area. Can be used as a bit of a model about how we deal with housing in some of the riskier areas”



Our City, Our Climate Workshops

“So, what we really want to do is get our city and our city leaders pulling together around adaptation. We want to trial a way of doing it that breaks down those silos.”

Transition Valley 473

“Projects that will help make the community more resilient and able to cope with future environmental hazards, economic shocks.”

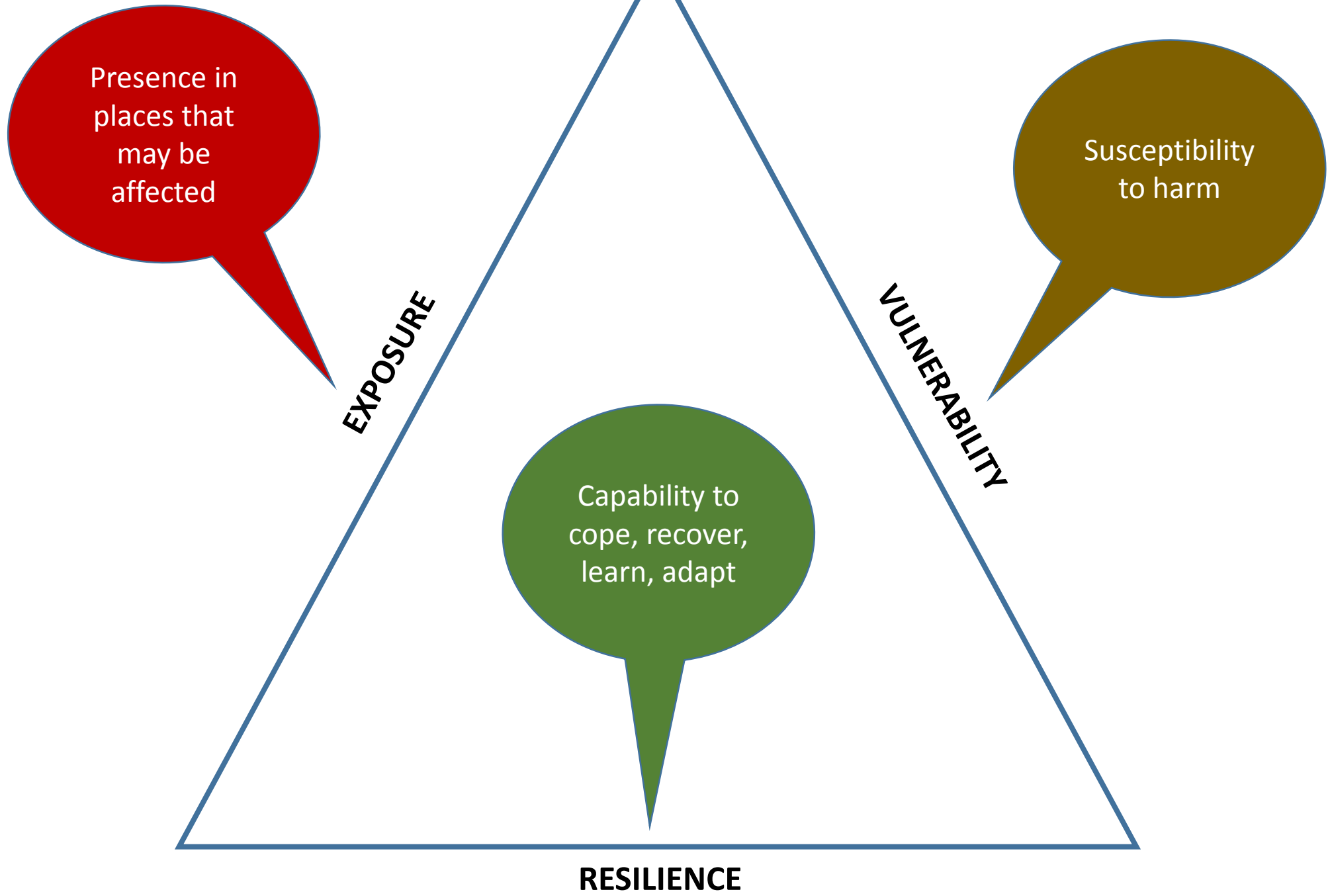
Film and talk series, fruit and nut tree plantings, street-based sharing of surplus, gardening support, sustainable transport, community gardens, local currency, rainwater collection and retrofitting insulation.

“With Transition Towns it’s accepting that you have to plan to be more resilient”



Take-aways 2.

1. Grassroots adaptation is happening – resilience a strong focus.
2. Councils can learn from community groups and iwi/hapū that are already taking action.
3. Engagement for adaptation will differ from councils' usual engagement processes – more inclusive; continuous over decades.
4. Capacity and resourcing for long-term engagement?
5. How to identify, engage with and support those more susceptible to harm?



“I mean, a district plan is actually the easy part.”

Questions?

“Everyone’s in it together, that’s my view. We all have a role to play in it. So supporting each other would be useful.”

