



## Understanding the impacts of climate change on marae

Many marae are built near waterways or coastal areas, placing them in a vulnerable position to the impacts of climate change. A new research project aims to map risks, understand challenges and co-create solutions with whānau and hapū to adapt and protect their marae for future generations.

Flooding, landslides, wildfire and rising sea levels are projected to become more frequent and severe. It is estimated that 30–50% of all marae across Aotearoa New Zealand are likely to be significantly impacted by climate change.

It is time for urgent decision making. However, whether to remain or relocate is a difficult choice for komiti marae (marae committees) and marae trusts. Marae and wharehau are more than buildings – they are a stronghold for iwi and Māori cultural identity, a connection to whenua (land) and whakapapa (genealogy).

Starting in July 2022, the *Climate change impacts on marae* research project is the first nationwide survey of all marae and is funded by the Building Research Levy. The project is led by Kiri Maxwell of Build Back Better Aotearoa New Zealand, with support from Professor Suzanne Wilkinson and Professor Regan Potangaroa of Te Kunenga ki Pūrehuroa | Massey University School of Built Environment. The research team is working in close partnership with iwi and marae.

Their research brings together issues and decision making that are often being faced alone by whānau and hapū living on their marae. It will identify which marae are most vulnerable to climate change and the challenges they are facing and then

co-develop culturally relevant and meaningful adaptation actions for decision making. The aim is to create a kete (basket) of knowledge and practice for whānau, hapū and iwi to share, learn and collectively manage the impacts of climate change.

Due to the existing gaps in academic research, the project has needed to build many of its own foundations. To understand which marae are at risk, researchers first had to develop a database of all marae across Aotearoa New Zealand. This level of detailed and centralised data has never been compiled before and will be made available for future research, government and public groups.

Due to be completed in late 2023, the project looks to positively contribute to the wellbeing, resilience and sustainability of marae, the core of Māori culture. It will support whānau, hapū and iwi to identify, adapt and protect the marae and its taonga against climate impacts. The effects of these decisions made today will be felt for generations to come.



**Kiri Maxwell,  
Build Back Better Aotearoa**

Ko Tainui te waka,  
Ko Hoturoa te rangatira,  
Ko Torerenuiārua te puhi ariki,  
Ko Kapuarangi te maunga,  
Ko Wainui te awa,  
Ko Ngāi Tai te iwi,  
Ko Kiri Maxwell tōku ingoa.

I whakapapa back to a beautiful part of Te Moana-a-Toi | Bay of Plenty, a place called Torere, so this mahi is very close to my heart. The team at Build Back Better Aotearoa is committed to working with whānau and communities to build climate resilience.

**What impact do you hope this research will have?**

This is extremely important mahi. This will be the first time we will have a view across the motu on how climate change is impacting our marae. This research will give those who are making decisions about our culturally significant places at risk some cost-effective, innovative and practical solutions to adapt to the impacts of climate change that uphold mātauranga Māori.

**Who will benefit from this project?**

In Aotearoa, whānau, hapū and iwi must remain at the forefront of climate action and the solutions must be our own. The kete of knowledge and learning will be shared with all marae and will grow and evolve over generations.



**This research will give those who are making decisions about our culturally significant places cost-effective, innovative and practical solutions to adapt to the impacts of climate change that uphold mātauranga Māori.**

**Why is this research important to you?**

We know that the impacts from climate change are only going to get more frequent and severe. During the recent devastation caused by Cyclone Gabrielle, it was heart-breaking seeing marae, whare and people's livelihoods destroyed.

Climate change is one of the greatest challenges Aotearoa will ever face. It poses an existential threat to our culture, our whakapapa, our economy and our natural environment. Protecting, saving and respecting buildings and cultural heritage of our marae are the core value of this research.