

Aohanga Incorporation: A social process framework for the development of a climate change resilience strategy

Photo from <http://aohanga.co.nz/>

The situation and reason for doing the case study

The primary aim of the Aohanga project was to develop a science-based, climate change resilience strategy for Aohanga Incorporation's Owahanga Station. In addition, a social process framework was developed for engaging rural communities and land-owning Iwi Incorporations in climate change mitigation and adaptation. The rationale for a project like this stems from two converging factors. Agriculture contributes significantly to New Zealand's greenhouse gas emission profile and rural based communities are vulnerable to the impacts of climate change therefore working with Maori land owners to assist with the development of mitigation and adaptation strategies is an essential part of the picture.



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Aohanga Incorporation Situation

Aohanga Incorporation is a Maori land-owning entity with approximately 1400 shareholders. The incorporation has a management committee of seven elected members and a farm manager. Owahanga Station is the incorporation's principle asset. It is a 7142ha farm on the Wairarapa coast south east of Dannevirke (Fig 1).



Figure 1. Location of Owahanga Station

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Ministry for Primary Industries
Manatū Ahu Matua



A resource developed through the Climate Change Technology Transfer Programme

The study

Over the course of the project, a series of workshops were held between the people from the Incorporation and a science team. The meetings began with clarification of the purpose, process and expected outcomes for the project. These meetings laid down the foundations for understanding the impact of climate change and for identifying the potential mitigation and adoption strategies for Owahanga Station. The identified strategies were considered in light of the opportunities they presented and barriers to implementation, as well as their fit with Aohanga's values and aspirations for Owahanga Station. The identified strategies were then developed in a climate change resilience action plan.

Aohanga Incorporation's climate change resilience strategies

The climate change resilience action plan was embedded into the overarching strategic development plan for the Incorporation. The strategic development plan has four pillars that refer to **Production, People, Governance** and **Diversification**.

Four areas of focus for the climate change resilience action plan were:

- Water harvesting to manage periods of drought.
- Erosion control on the farm land and along the coastline to manage the impact of more intense heavy rainfall events.
- Building soil organic matter and managing weeds as a resource.
- Strengthen the core business to provide the farm infrastructure that supports other actions.

One example of the cross-cutting nature between the development and resilience plans was the goal of improving the soil fertility to improve farm production which can, in-part, be achieved by building soil carbon stocks, and would therefore, also be a climate change mitigation action. Another example was the goal to improve stock performance. In this case, they identified the strategy of breeding of stock with increased heat and drought tolerance which would be an adaptation strategy for the expected impacts of climate change and would also improve the farm production.

In conjunction with the physical and environmental strategies that could be adopted, the project members identified strategies to support the 'people' part of the organisation. People involved in the Incorporation would need training to understand and use the science tools available to support their decision making processes. The governance strategy could include a role for a 'climate change resilience champion'. This person, with training, would help keep the incorporation up-to-date with the climate change challenges and the implications the challenges have on the sustainability of the farm or the land-use diversification options the Incorporation chooses.



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Elements of a general engagement framework

The workshops identified a number of factors they considered necessary to ensure the successful engagement of people in the creation of climate change resilience strategies. These elements were:

Pre-engagement

- Ensure there is a sound understanding of the history, political and cultural context of the rural and science communities involved in the engagement.

Engagement

- Identify, understand and respect the knowledge sets, culture, values and aspirations of the communities.
- Provide flexible processes that allow for relationship building and trust to develop.

Post engagement

Maintain relationships between the rural and science groups after the resilience strategies are identified so that the plan can be reviewed in future to consider in particular:

- Any newly identified local changes impacting on the community and the land.
- New insights from the latest scientific climate change findings.

A final insight from the workshops

A final lesson learnt by the project participants is that appropriate research timeframes are needed to align with the communities' capacity to engage and respond to events and communication relating to the research.

The climate change issues are best tackled by looking for alignments between the communities' worldviews, values and goals and what climate change resilience might mean to the communities, so that the plan effectively manages the impact of climate change and sustainable use of the land.



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Further information

A copy of the full paper - *Aohanga Incorporation: Climate change mitigation and adaptation: A social process framework for engagement and the development of a climate change resilience strategy*. (2012) can be downloaded at, <http://ccrb/CloudLibrary/2013-31-Aohanga.pdf>

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