

Key documents

Impacts of climate change on land-based sectors and adaptation options

Stakeholder/Summary report

<http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1581>

Technical report – by Chapter

1. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1538>
2. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1539>
3. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1540>
4. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1541>
5. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1542>
6. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1543>
7. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1544>
8. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1545>
9. <http://www.mpi.govt.nz/Default.aspx?TabId=126&id=1546>

MPI Web-based adaptation toolbox

<http://www.maf.govt.nz/environment-natural-resources/climate-change/resources-and-tools/adaptation-toolbox.aspx>

Videos

These could be quite a good resource from the NZ science learning hub. There's 221 videos on climate change that were produced for TVNZ's channel 7

[http://www.sciencelearn.org.nz/content/search?SearchText=climatechange&SubTreeArray\[\]=2&advance_search=1&SearchFacetKey\[\]=videos](http://www.sciencelearn.org.nz/content/search?SearchText=climatechange&SubTreeArray[]=2&advance_search=1&SearchFacetKey[]=videos)

Agricultural ghg gases

<http://www.sciencelearn.org.nz/Science-Stories/Ever-Wondered-Series-1/Sci-Media/Video/Ever-Wondered-Series-1-Episode-8/Ever-Wondered-episode-8-part-3>

Case studies - sector

- [Cropping: Managing in a changing climate](#)
- [Hawke's Bay cropping farm: Optimising irrigation efficiency in a drought prone region](#)
- [Gisborne cropping farm: Optimising energy efficiency and improving soil productivity](#)
- [Rangitikei cropping farm: Optimising energy efficiency and improving soil productivity](#)
- [Water: Making irrigation go further](#)
- [Autumn calving: Building drought resilience in a dairy system](#)
- [Sustainability and profitability: A Rangitaiki Plains dairy farm](#)
- [Sustainable dairying: Reducing soil damage in high rainfall](#)
- [Monitoring and planning: Maintaining production in a changing climate](#)
- [Waikato organic dairy farm: Making the most of dairy farm effluent](#)
- [Project Rameka: A local response to the changing climate](#)

- [Plantation forests: Risk management within a changing climate](#)
- [Winegrowing: Managing in a changing climate](#)
- [Pipfruit in New Zealand: The pipfruit industry's future](#)
- [Bay of Plenty kiwifruit orchard: Balancing climate concerns with market realities](#)
- [Huia wine: Company claims climate change credentials](#)
- [Central otago orchard: Maintaining a competitive advantage](#)
- [Nautilus Estate: Using water wisely, to grow wine](#)
- [Hawke's Bay pipfruit orchard: Optimising irrigation to reduce costs and improve quality](#)
- [Energy efficiency: Work platforms aid intensive apple orchard sustainability](#)
- [Dryland farming: A Marlborough family's journey](#)
- [Drought: Learning from the past](#)
- [Pasture renovation and kikuyu management: A Northland beef farm](#)
- [The Steyning: Setting the future direction of deer farming](#)
- [Managing climate change: Farming in the high country](#)
- [Climatic variability: Coping in an organic merino production system](#)
- [Focus on sustainability: A Hawke's Bay hill country farm](#)
- [High Country Farming: Erratic seasons test mettle at Middlehurst Station](#)
- [High country farming: Climate change, tenure review, and private energy generation](#)
- [Reducing risk: Combining complementary farming blocks in different climatic zones](#)

Fact Sheets

- [The theory, the history, the science](#)
 - [New Zealand's variable climate](#)
 - [Models, scenarios and uncertainties](#)
 - [Possible effects on our climate](#)
 - [Possible impacts of climate change](#)
 - [Effects and impacts: Northland and Auckland](#)
 - [Effects and impacts: Waikato and Bay of Plenty](#)
 - [Effects and impacts: Gisborne to Wairarapa](#)
 - [Effects and impacts: Taranaki to Wellington](#)
 - [Effects and impacts: Nelson and Marlborough](#)
 - [Effects and impacts: West Coast](#)
 - [Effects and impacts: Canterbury](#)
- [Effects and impacts: Otago and Southland](#)

Māori - Case Studies & other

- [Arai Matawai: Breeding for facial eczema tolerance](#)
- [Environmental monitoring of lakes and rivers to inform future climate change adaptation - Ngati Tuwharetoa Wai Ora](#)
- [Incorporating climate change into iwi environmental management plans - Ngai Tahu Ki Murihuku: Te Tangi a Tauira](#)
- [Managing impacts on tuna \(eel\) using a kaupapa Maori approach - Ngati Raukawa ki te tonga me Te Wananga O Raukawa](#)
- [Threats to stocks of Titi and Tio in the South Island - Te Titi te Tio ki Rakiura](#)

- [Wairarapa Moana Farms: Build buffers into farm policy for resilience](#)
 - [Weather and climate change indicators: Nga Tohu Huarere O Te Whanau-A-Apanui](#)
- [Climate change business opportunities for Māori land and Māori organisations](#)

Research reports

- [Costs and Benefits of Climate Change and Adaptation to Climate Change in New Zealand Agriculture: What Do We Know so Far?](#)
- [Improved Field Facilities to Study Climate Change Impacts and Adaptations in Pasture](#)
- [Enhanced modelling capability to conduct climate change impact assessments](#)
- [Projected Effects of Climate Change on Water Supply Reliability in Mid-Canterbury](#)
- [Vulnerability of New Zealand pastoral farming to the impacts of future climate change on the soil water regime](#)
- [Forage crop opportunities as a result of climate change](#)
- [Adapting to climate change in the kiwifruit industry](#)
- [Drought, Agricultural Production & Climate Change – A Way Forward to a Better Understanding past behaviour](#)
- [Climate change risks to pastoral production systems](#)
- [The effect of climate change on New Zealand’s planted forests. Impacts, risks and opportunities](#)
- [Improved estimates of the effect of climate change on NZ fire danger](#)
- [Recent frost trends for New Zealand](#) (summary [Recent trends in frost in New Zealand](#))
- [Improving Sustainable Life-time Performance of Pastures: Learning from Extreme Climatic Events](#)
- [Tomorrow’s pastures: subtropical grass growth under climate change](#)
- [The threat to New Zealand’s plantation forests from four pests under a changing climate](#)
- [Impacts of Climate Change on Rural Water Infrastructure](#) (summary [Climate Change Impacts on Rural Water Infrastructure](#))
- [Possible impacts of climate change on biocontrol systems in New Zealand](#) (summary [Climate change and biocontrol systems](#))
- [Impacts of climate change on erosion and erosion control methods – A critical review final report](#) [search on title at <http://www.maf.govt.nz/news-resources/publications>]

Technical manuals and other publications - MfE

- Climate change guidance note on the [Quality Planning](#) website
 - [Climate Impact Map](#) – Information and education for the general public
 - Tools for estimating the effects of climate change on future flood flow (May 2010)
 - [Preparing for future flooding: A guide for local government in New Zealand](#) (May 2010)
 - Climate change effects and impacts assessment: A guidance manual for local government in New Zealand (2nd edition, May 2008)
 - Preparing for climate change: A guide for local government in New Zealand (2nd edition, July 2008)
 - Coastal hazards and climate change: A guidance manual for local government in New Zealand (2nd edition July 2008)
- Preparing for coastal change: A guide for local government in New Zealand (March 2009)