



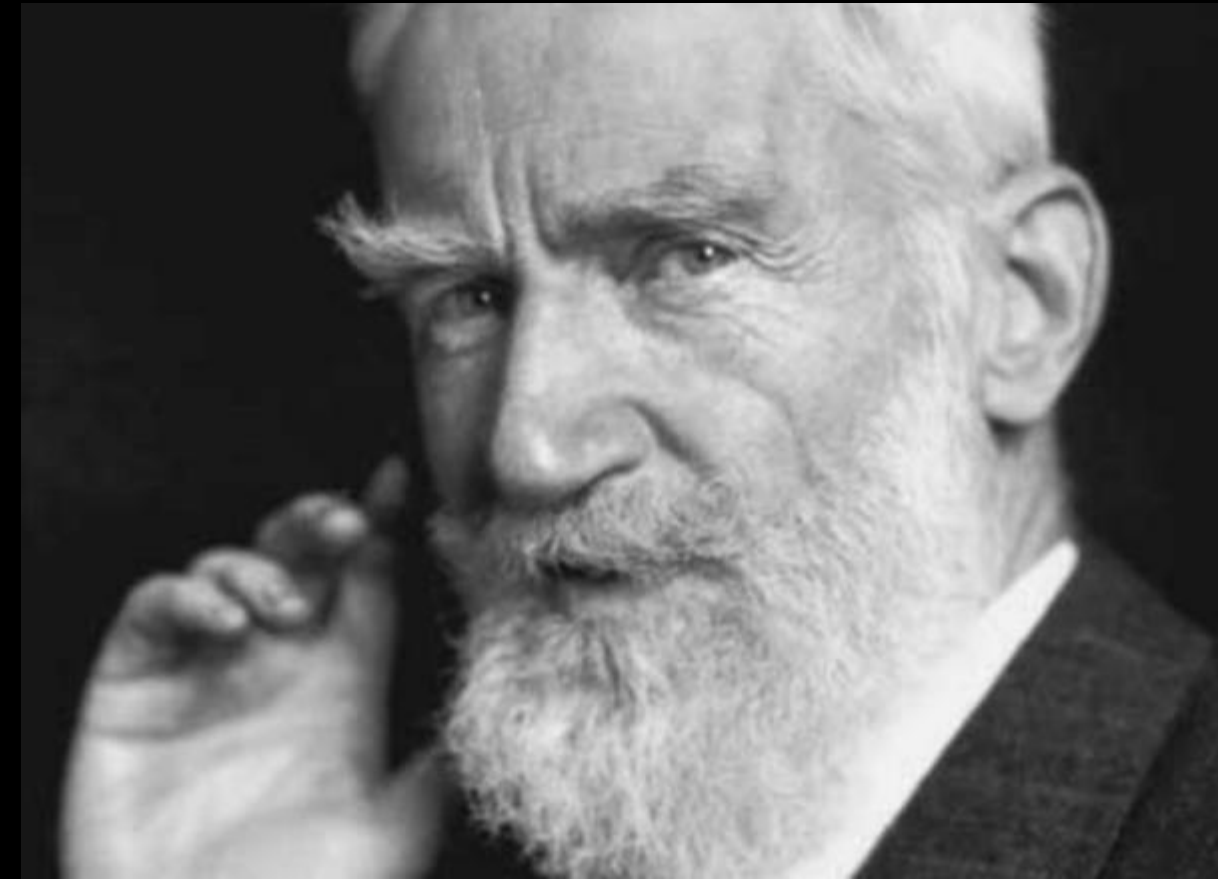
# **Strengthening the Primary Sector**

## **Strategies for Emergency Management & Crisis Response**

**Dr. John Roche**, Ph.D.

Chief Science Adviser, &  
Director, On-Farm support  
Ministry for Primary Industries

Kaitohutohu Mātanga Pūtaiao Matua, me  
Te Pou Whakahaere, Mahi Ahuwhehua  
Manatū Ahu Matua



*“The single biggest  
problem in communication  
is the illusion that it has  
taken place.”*

*-George Bernard Shaw*



*Supporting farmers  
and growers to  
continue to be  
successful in a  
changing world*





- *Ability to nudge;*
- *Gather the farmer voice;*
- *Science connection.*





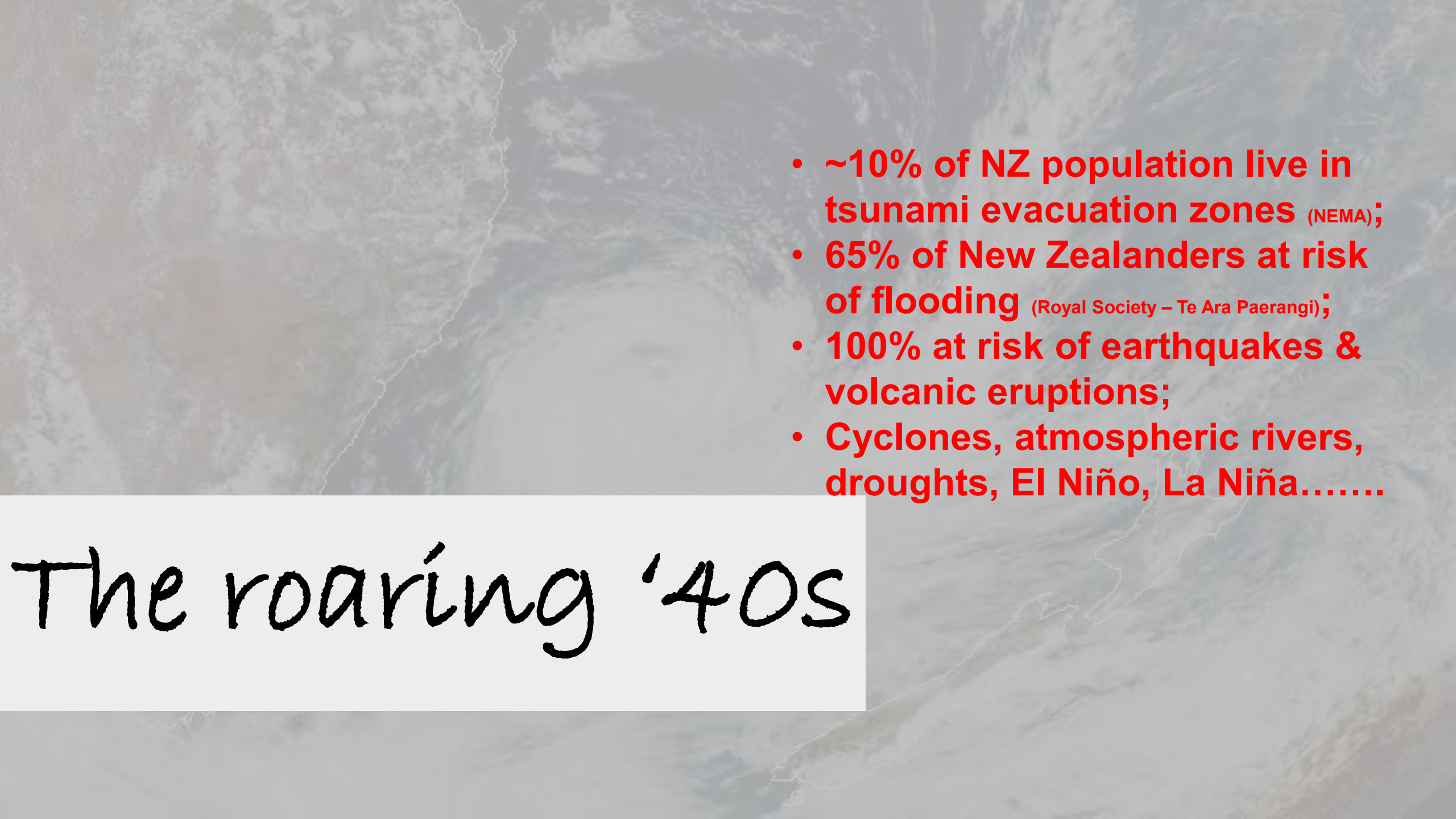
- Ability to
- Gather
- voice
- Science

**Communication**



A satellite image of a storm system, likely a cyclone or hurricane, over the ocean. The storm is characterized by a distinct eye and spiral cloud bands. The surrounding ocean shows turbulent, white-capped waves. A white text box is overlaid on the lower-left portion of the image, containing the text "The roaring '40s".

The roaring '40s

- 
- ~10% of NZ population live in tsunami evacuation zones (NEMA);
  - 65% of New Zealanders at risk of flooding (Royal Society – Te Ara Paerangi);
  - 100% at risk of earthquakes & volcanic eruptions;
  - Cyclones, atmospheric rivers, droughts, El Niño, La Niña.....

The roaring '40s



Lower North Island 2004







Snow raking 2013

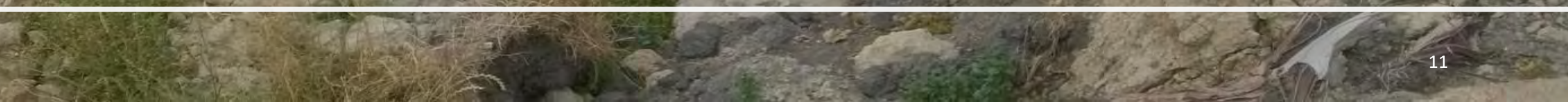


Taranaki 2015





Kaikoura, Hurunui, Marlborough, November 2016





Kaikoura, Hurunui, Marlborough, November 2016



National and International Press on the stranded cows post-earthquake.

# MOO AND MOO and the Little Calf too



STORY BY Jane Millton  
ILLUSTRATED BY Deborah Hinde





April: Edgecumbe floods 2017





July: Taieri plains 2017





April 2018: Bay of Plenty





Southland, Otago, Canterbury, July 2018



Southland 2020



# Canterbury Floods 2021





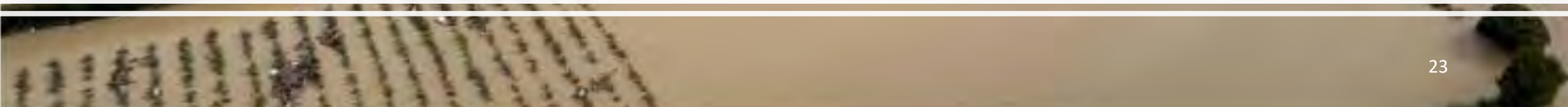
## Cyclone Gabrielle



# Cyclone Gabrielle



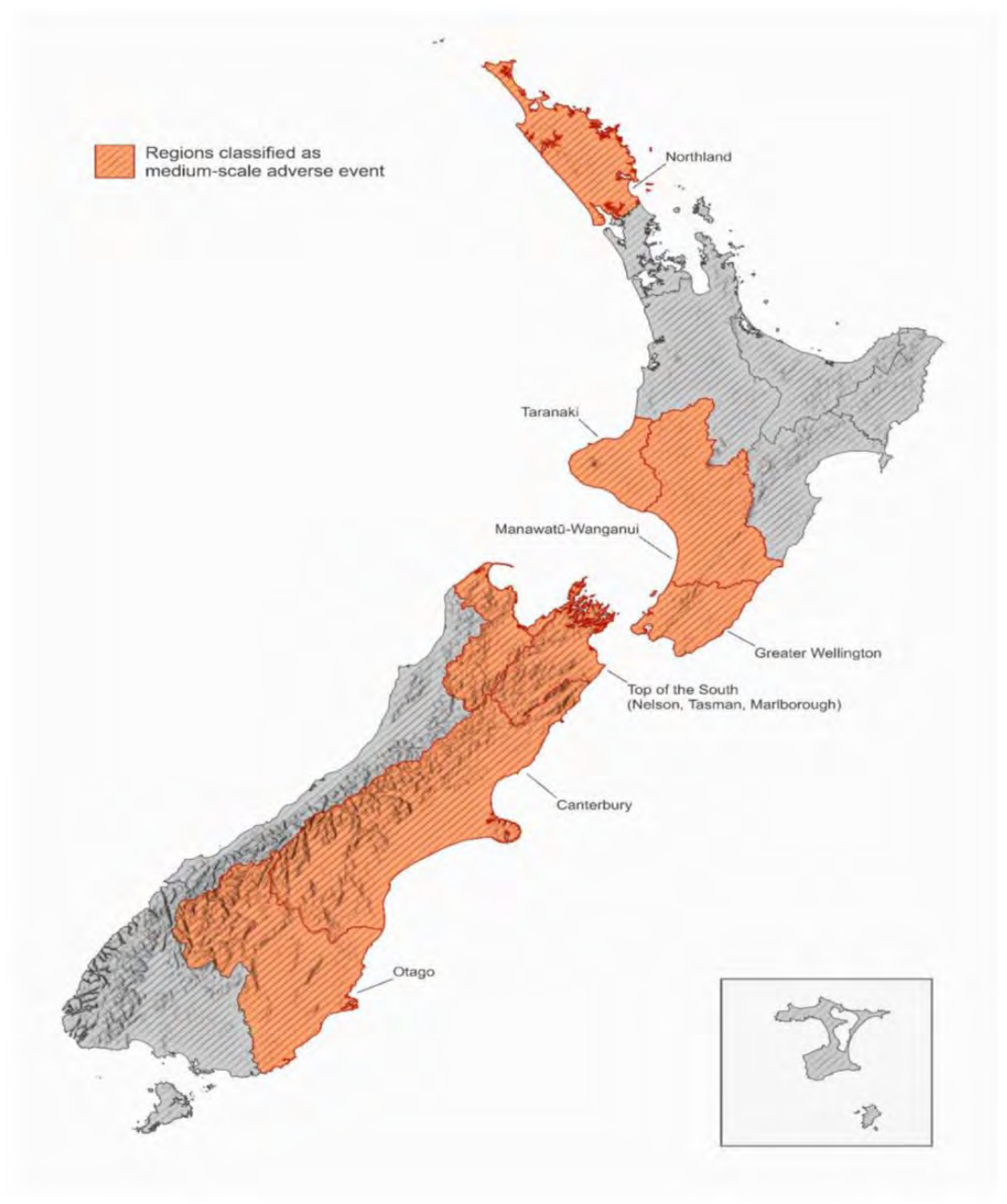
## Cyclone Gabrielle





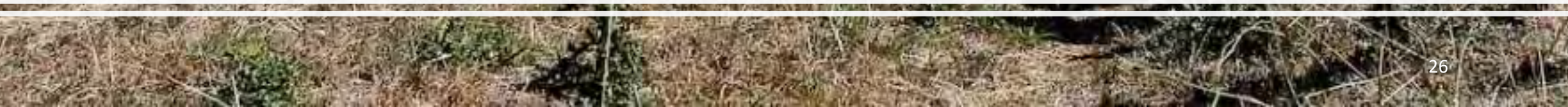
# Otago Flooding, October 2024







Waikato 2008





East Coast drought 2015



## South Canterbury Opuha Dam 2015



# Southland Winter, 2024

*“Farming looks mighty easy  
when your plow is a pencil and  
you're a thousand miles from the  
corn field.”*

*- Dwight D. Eisenhower*





**Why is MPI  
involved?**

# Engine room of the New Zealand economy



**\$54.6 billion**  
in export revenue

Forecast, year to 31 June 2021.



**80.9%** of  
merchandise exports

This total also includes services exports as a portion of New Zealand's merchandise exports. It also includes the value of exports of goods, services, and intangible exports, but excludes the value of exports of goods, services, and intangible exports.



**12.8%** of  
employment

This includes all employment in New Zealand's core and non-core sectors. It also includes the value of exports of goods, services, and intangible exports, but excludes the value of exports of goods, services, and intangible exports.



**10.5%** of GDP

This total also includes services exports as a portion of New Zealand's core and non-core sectors. It also includes the value of exports of goods, services, and intangible exports, but excludes the value of exports of goods, services, and intangible exports.





# MPI's Role in Response

- Animal welfare
- Primary sector recovery
- Information flow
- Rural Recovery Coordinators
- Emergency preparedness
- Response Governance



**Ministry for Primary Industries**  
Manatū Ahu Matua

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- feeds into Civil Defence locally, regionally and nationally and uses a CIMS structure internally for organising ourselves during events.

**Agriculture & Investment Services**  
Tapuwae Ahuwhenua

---



- Agriculture & Investment Services (AIS) is the branch that communicates face to face with CDEM and Industry in Climatic and Natural Adverse Events.
- The On Farm Support Directorate are on the ground MPI advisers along with the Animal Welfare team.

# Why should you care?



*“There are only nine meals  
between mankind and anarchy”*

*- Alfred Henry Lewis*



# Risk of adverse weather events increasing globally



**Drought**

**Extreme Temperature**

**Flood**

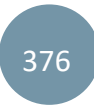
**Landslide**

**Storm**

**Wildfire**

1980 – 1999

2000 – 2019



↑ 29%

↑ 232%

↑ 134%

↑ 48%

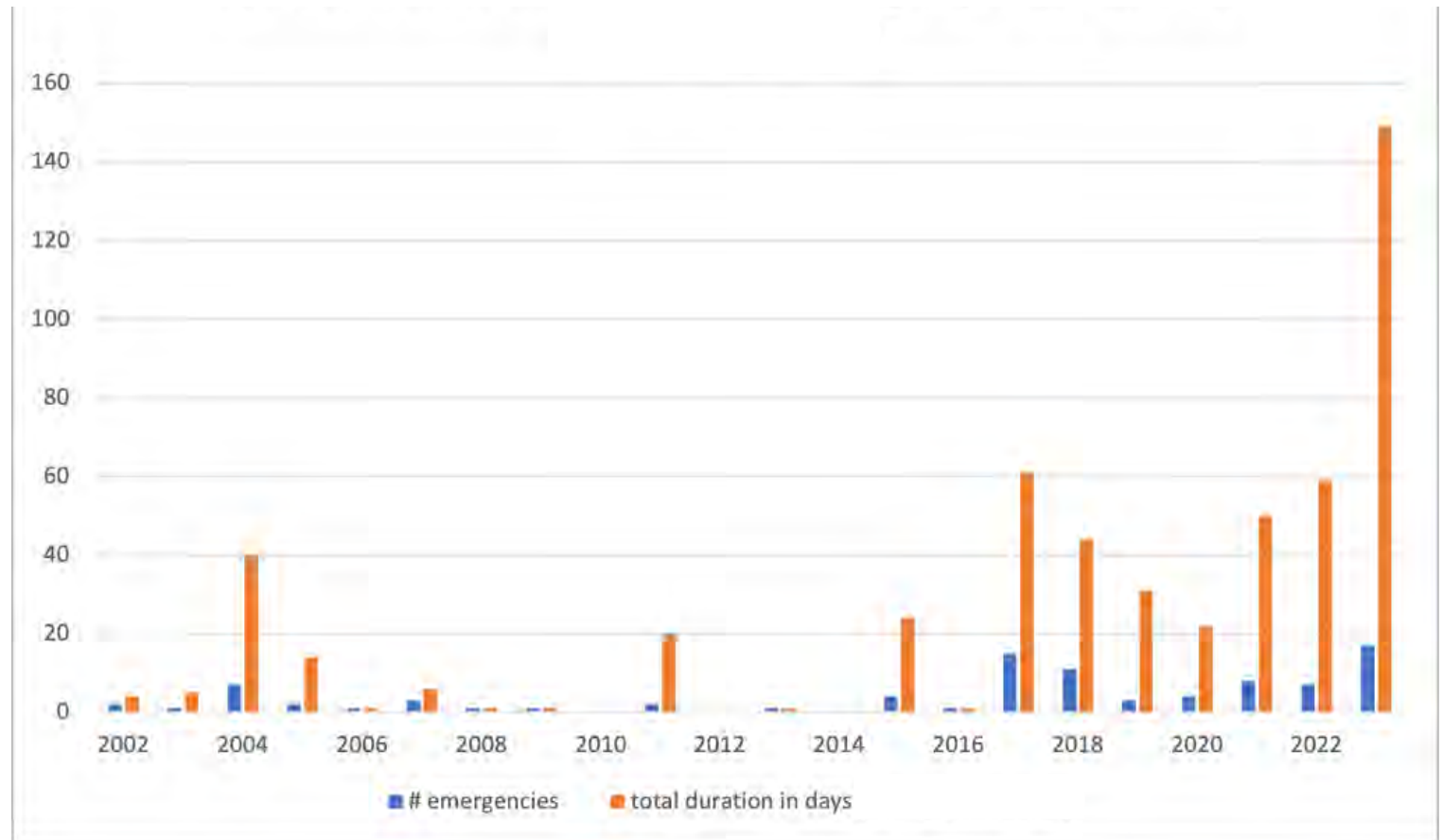
↑ 40%

↑ 46%

Source: UN Office for Disaster Risk Reduction

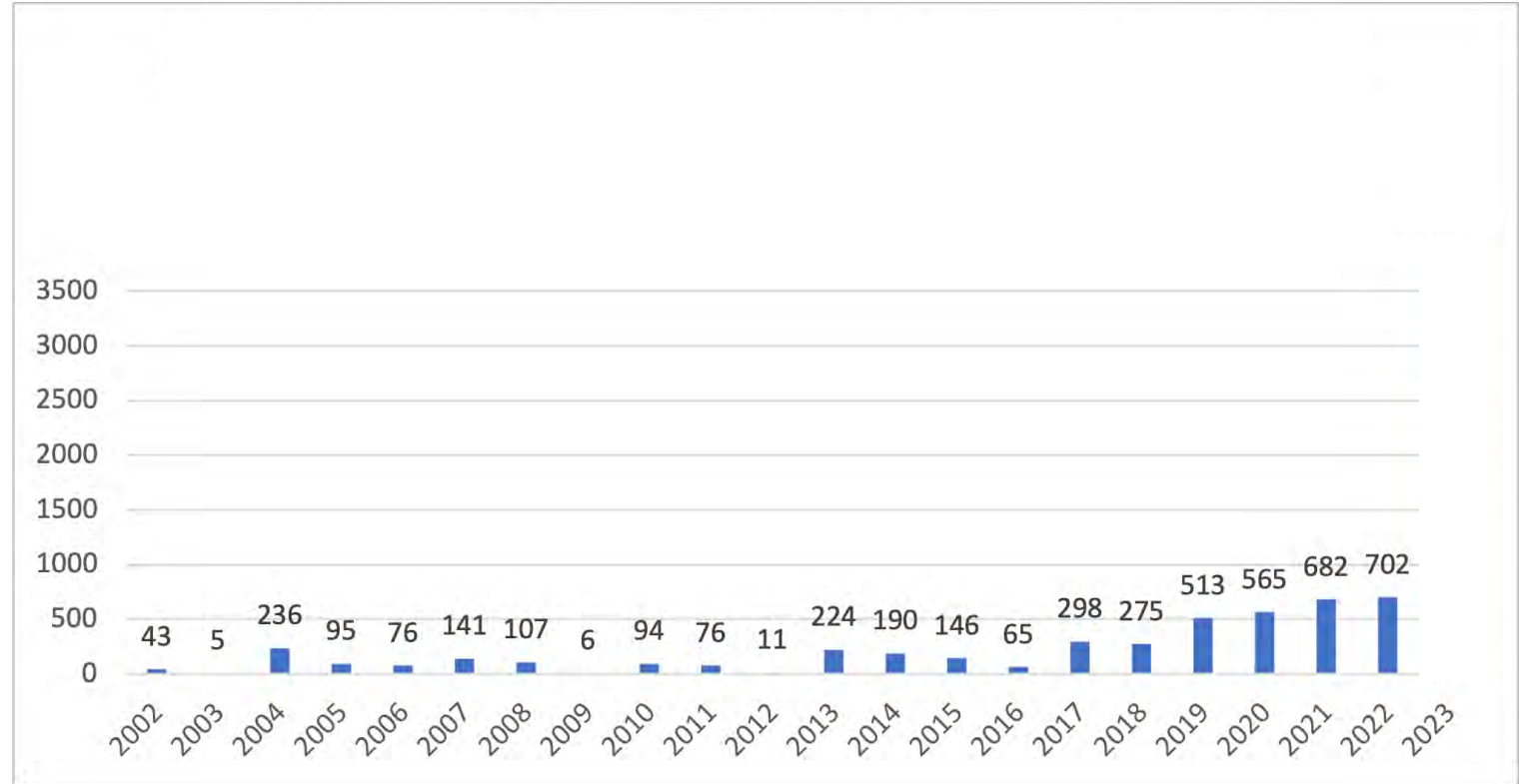
# Declared weather-related states of emergency in New Zealand

States of  
Emergency  
(Planetary  
Ecology  
Magazine)



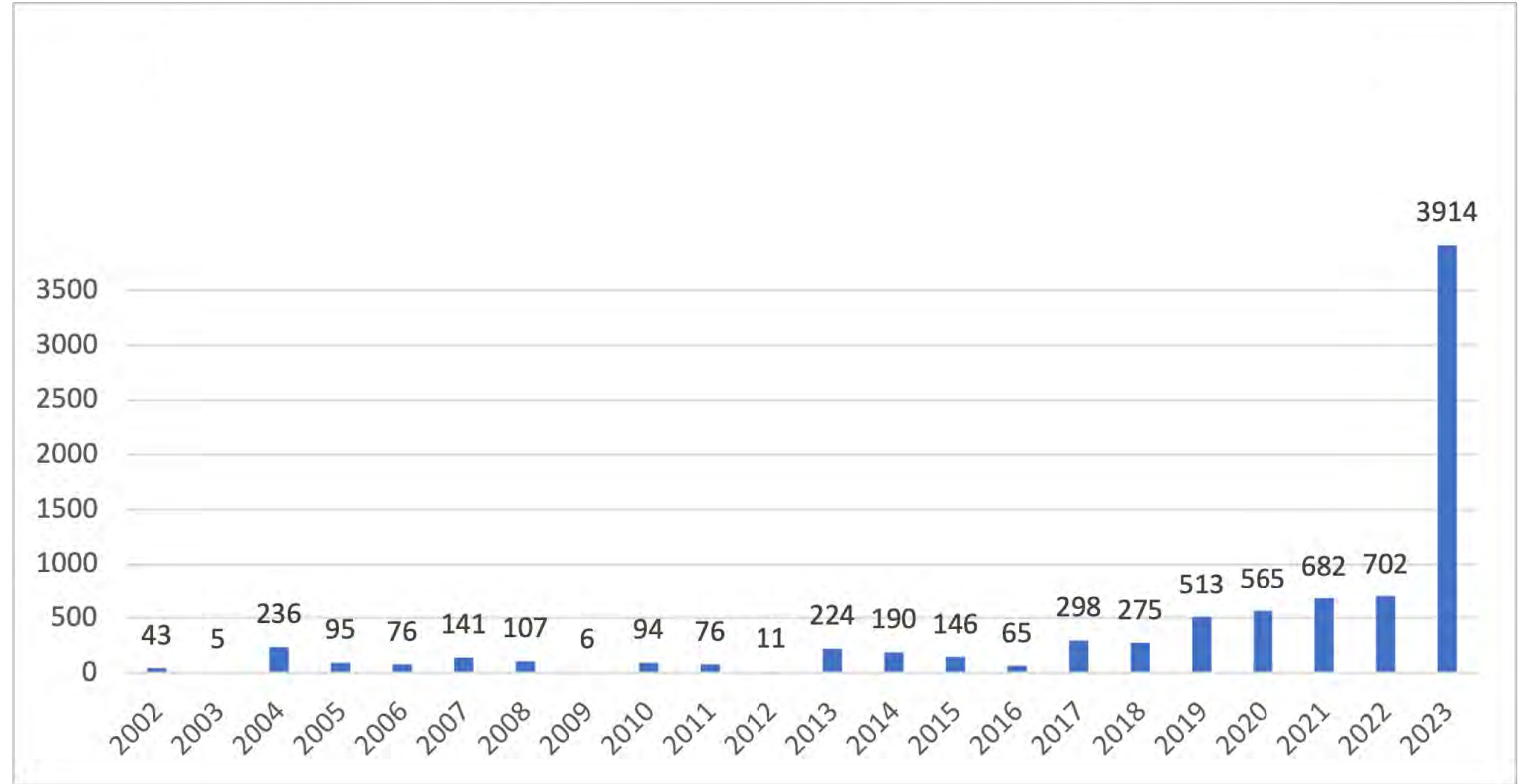
# Insurance payouts for weather-related damage in NZ (NZ\$, inflation adjusted to 2023)

These events are affecting all of us



# Insurance payouts for weather-related damage in NZ (NZ\$, inflation adjusted to 2023)

These events are affecting all of us



————— \$80.9 m ————— ————— \$366.0 m —————  
————— \$688.6 m —————



*“When written in Chinese, the word  
‘crisis’ is composed of two characters.  
One represents danger and the other  
represents opportunity”*

*-John F. Kennedy*



# The 4 Rs

- Readiness
- Response
- Recovery
- Reduction



# Readiness

“Fáilíng to plan  
is planníng to  
faíl”



# Readiness

- Regionally-based teams;
- “Peacetime” conversations;
- Regional Advisory Group prepared.

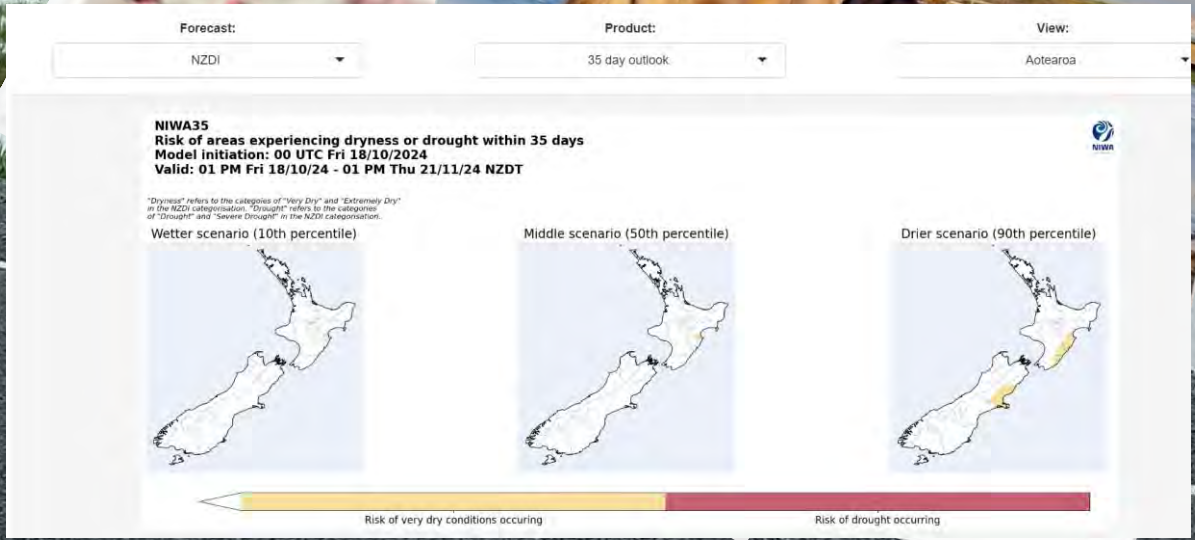
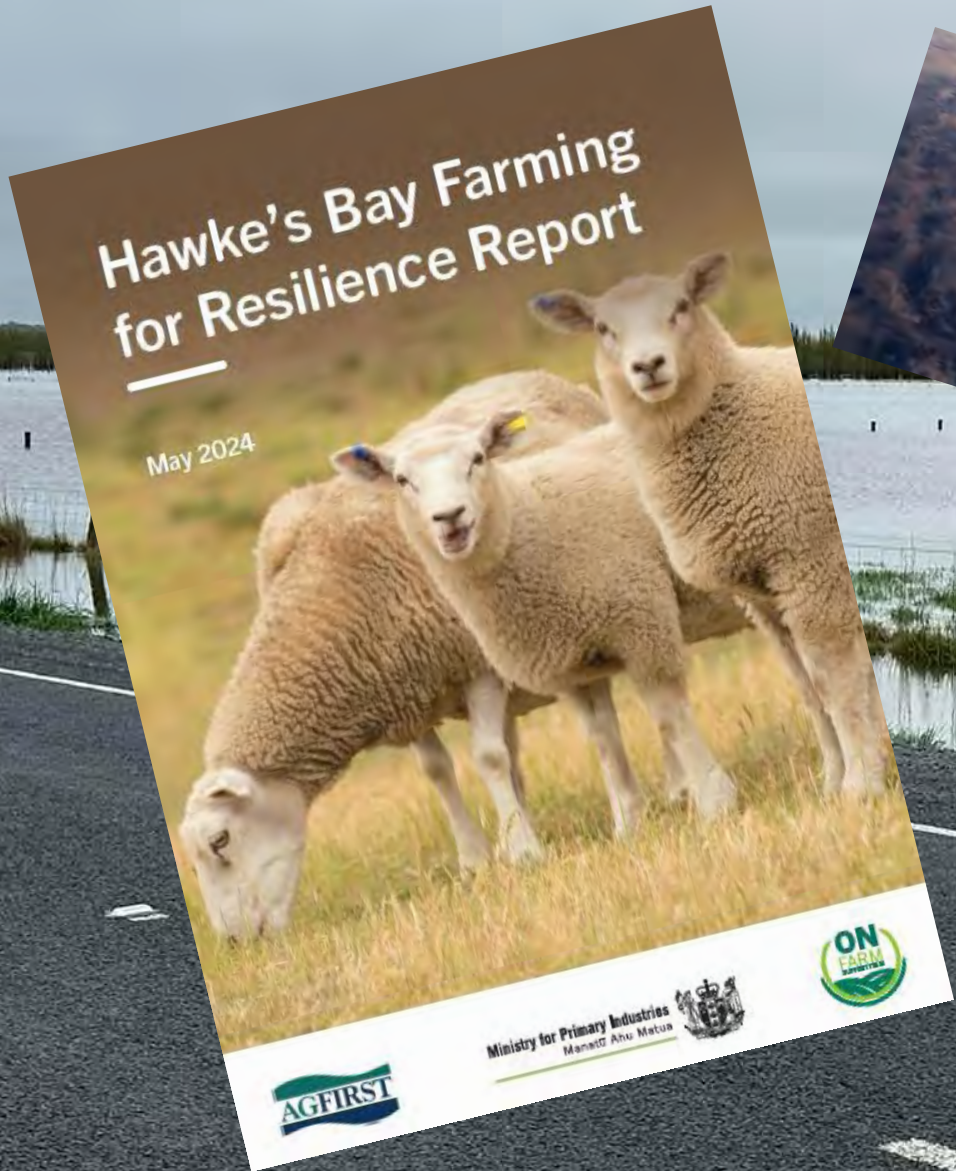


# OFS Communication Approach

- “Three Cups of Tea”;
- Coaching Conversations;
- Science-based;
- CIMS trained;
- Connected and Connecting.



# Reduction & Readiness



# SCIENCE FOR FARMERS

## SCIENCE FOR FARMERS

### HARNESSING THE POWER OF SCIENCE

Innovation, investment and research to help farmers feed the world profitably, reduce greenhouse gases and protect the environment.

SCIENCE FOR FARMERS



*“Emergency preparedness is a team sport.*

*Unforeseen circumstances happen to the best of us, and we all need a little help from a friend”*

- Eric Whitaker





# Some of the people we talk to in an event



**FEDERATED FARMERS OF NEW ZEALAND**



**MINISTRY OF SOCIAL DEVELOPMENT**  
TE MĀNATŪ WHAKAHIATO ORA



**Ministry of Business, Innovation & Employment**



**Rural Support**

**DairyNZ**

**NZ TRANSPORT AGENCY**  
WAKA KOTAHI

**NZKGI**  
NEW ZEALAND KIWIFRUIT GROWERS

**Local bodies**

**Northland**  
Northland Regional Council  
Far North District Council  
Kaipara District Council  
Whangarei District Council

**Auckland**  
Auckland Council

**Bay of Plenty**  
Bay of Plenty Regional Council  
Kawerau District Council  
Opotiki District Council  
Rotorua District Council  
Tauranga City Council  
Western BOP District Council  
Whakatane District Council

**Waikato**  
Waikato Regional Council  
Hamilton City Council  
Otorohanga District Council  
Hauraki District Council  
Matamata-Piako District Council  
South Waikato District Council  
Taupo District Council  
Thames Coromandel District Council  
Waipā District Council  
Waikato District Council  
Waitemata District Council

**Taranaki**  
Taranaki Regional Council  
New Plymouth District Council  
South Taranaki District Council  
Stratford District Council

**Hawke's Bay**  
Hawke's Bay Regional Council  
Napier City Council  
Central Hawke's Bay District Council  
Hastings District Council  
Wairoa District Council

**Manawatu-Wanganui**  
Horizons Regional Council  
Palmerston North City Council  
Horowhenua District Council  
Manawatu District Council  
Rangitikei District Council  
Ruapehu District Council  
Taranaki District Council  
Wanganui District Council

**Wellington**  
Greater Wellington Regional Council  
Wellington City Council  
Hutt City Council  
Porirua City Council  
Upper Hutt City Council  
Carterton District Council  
Napier Coast District Council  
Masterton District Council  
South Wairarapa District Council

**Canterbury**  
Environment Canterbury  
Christchurch City Council  
Ashburton District Council  
Hurunui District Council  
Kaikoura District Council  
Mkenzie District Council  
Selwyn District Council  
Timaru District Council  
Waimakariri District Council  
Waimate District Council

**Chatham Island**  
Chatham Islands Council

**West Coast**  
West Coast Regional Council  
Buller District Council  
Grey District Council  
Westland District Council

**Southland**  
Environment Southland  
Invercargill City Council  
Gore District Council  
Southland District Council

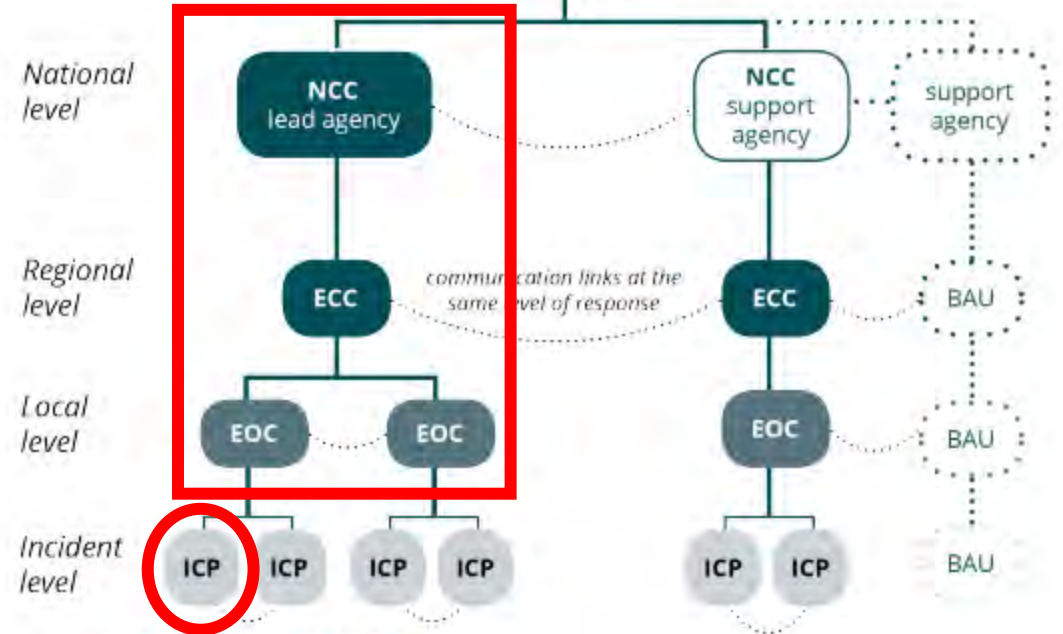
**Otago**  
Otago Regional Council  
Dunedin City Council  
Waikati District Council  
Central Otago District Council  
Queenstown Lakes District Council  
Clutha District Council

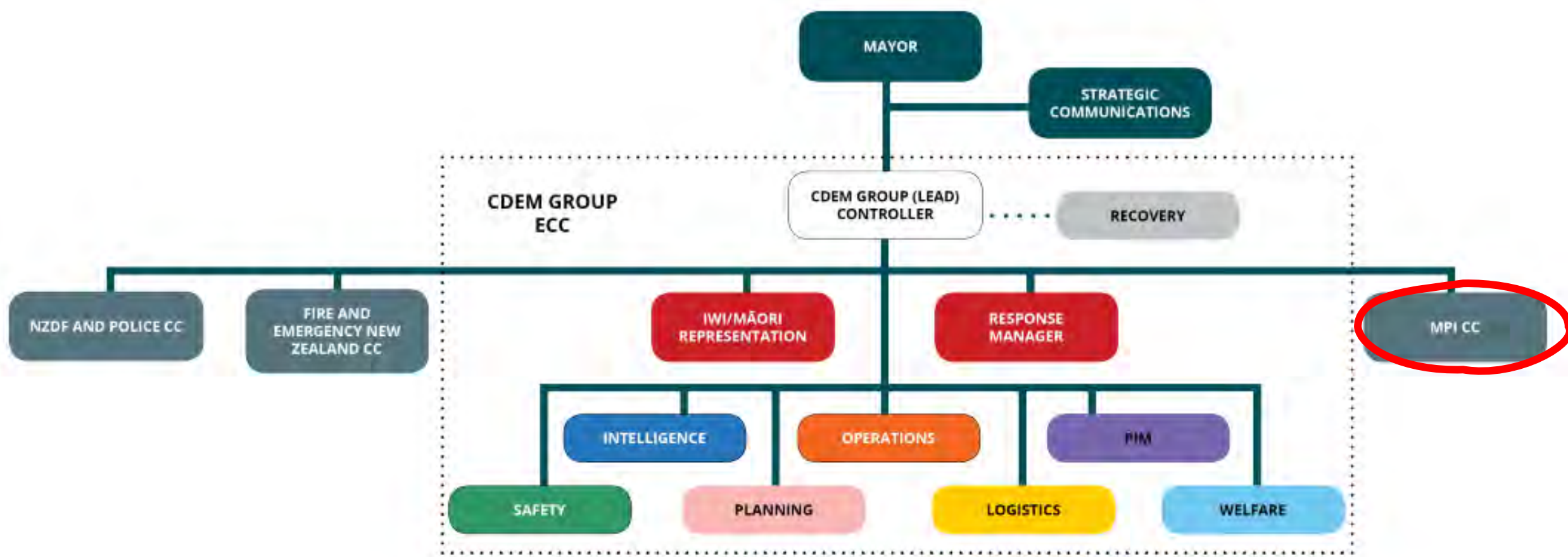
Ministry for Primary Industries  
Manatū Ahu Matua

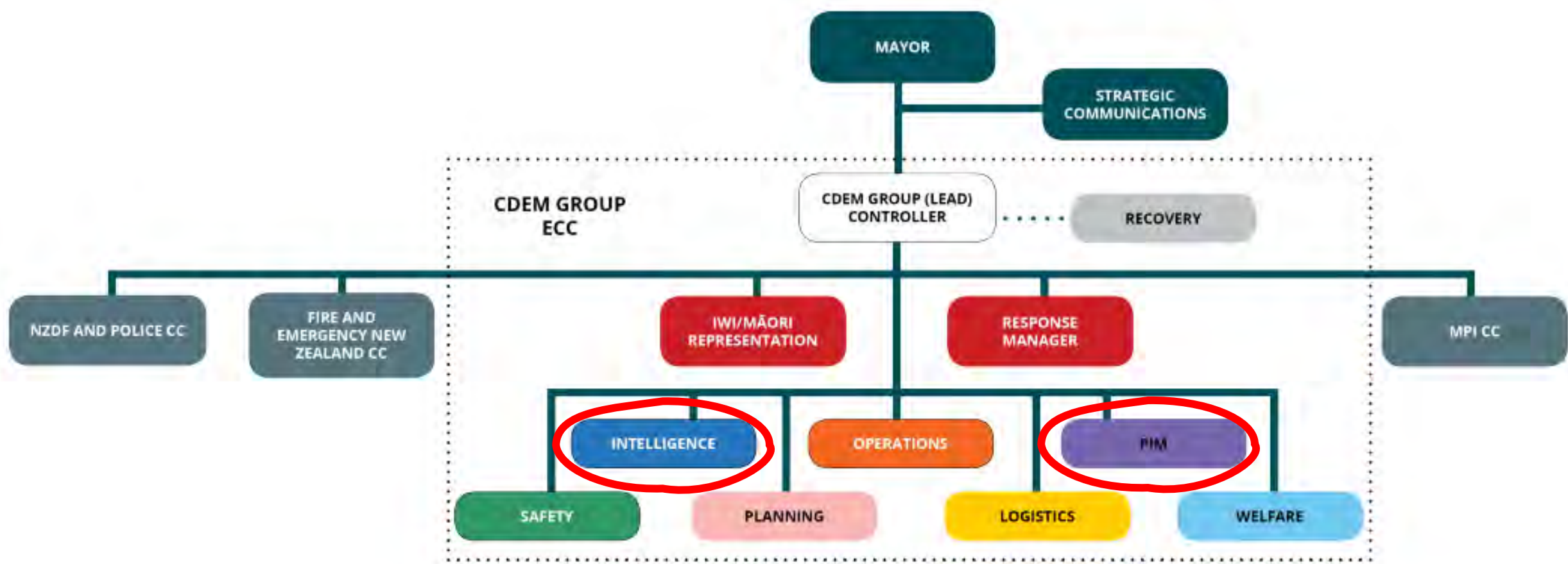




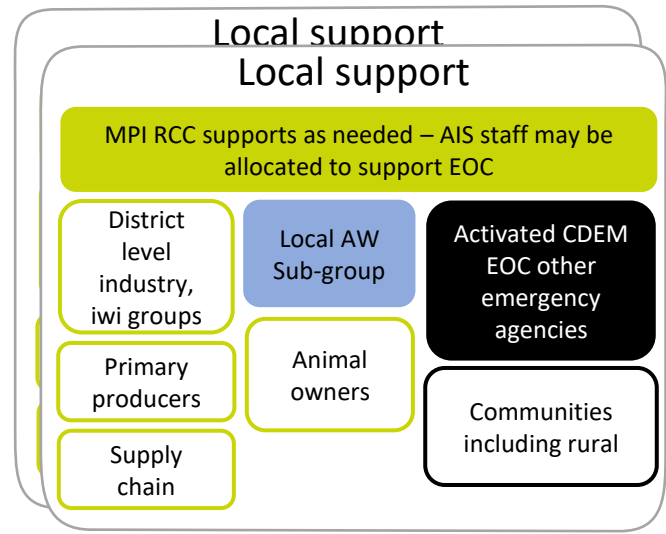
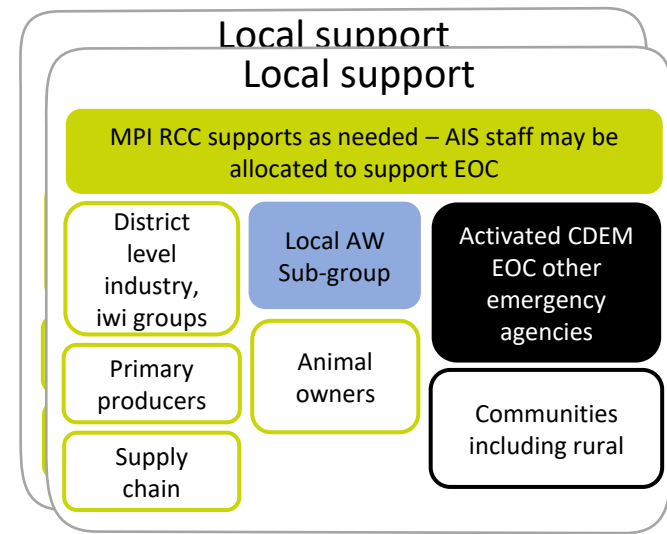
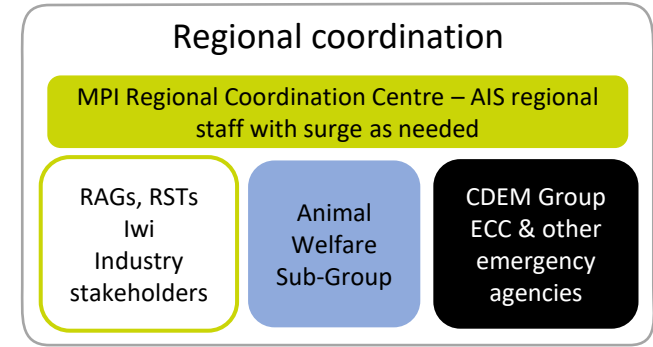
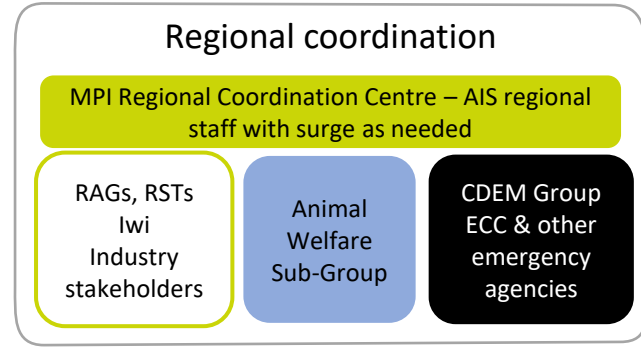
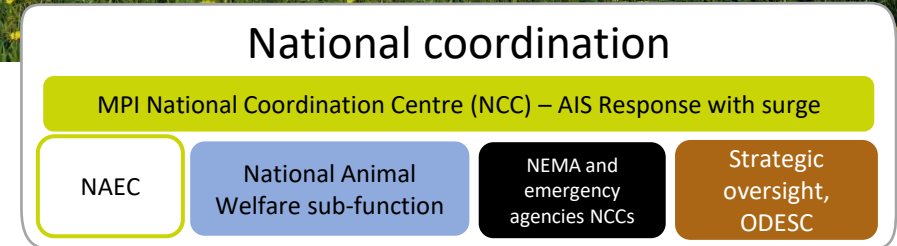
Our National Security System has its own specific structures, functions, processes and principles (different to CIMS)







# The MPI Response



# If the balloon goes up!

- Governance group stood up (AEGG):
  - Flexible – based on event severity
    - SLT or AIS Directors (depending on scale and severity);
  - Support effective response – make critical decisions early;
  - Activated during (before) emergencies and continues through recovery
- Controller Role:
  - Senior Operational leader who directs the response;
  - Supported by the AEGG for resources and decision making;
- Interagency collaboration:
  - Coordinate with other agencies like NEMA & FENZ;



# Recovery

- Recovery begins the same day as the response;
- MPI will move to offer support;
- On Farm Support works with industry partners to deliver events and activities and organise volunteers.



# Recovery







Handy Landys:  
Lincoln University  
Student Volunteers  
doing fencing post-  
earthquake.



People



# The people factors

- Needs assessment;
- Psychosocial support;
- Household goods and services;
- Financial assistance for families;
- Animal welfare.



- *Local relationships leveraged*
- *Known stakeholders engaged*
- *Two-way information flows*

# People love their pets

New Zealand companion animal population breakdown, 2020

Companion animal type	Household penetration	Average number in home	Total (000)
Birds	6%	5.2	560
Cats	41%	1.7	1,219
Dogs	34%	1.4	851
Fish	9%	8.1	1,368
Horses / ponies	1.6%	2.5	72
Rabbits	2.8%	2.4	121
Other small mammal *	1.8%	3.2	101
Reptile	1.3%	2.6	60
Total	64%	-	4,352

Figure 1

\*Other small mammal includes rat, mouse, guinea pig.

- 64% of NZ households own at least one companion animal;
- Our current animal shelters are consistently running at near capacity;
- In an event, our human welfare centres often do not allow animals;
- People will often put their lives at risk rather than leave their 'fur babies'.

NZQA 23695 – Provide companion animal welfare in Civil Defence emergencies





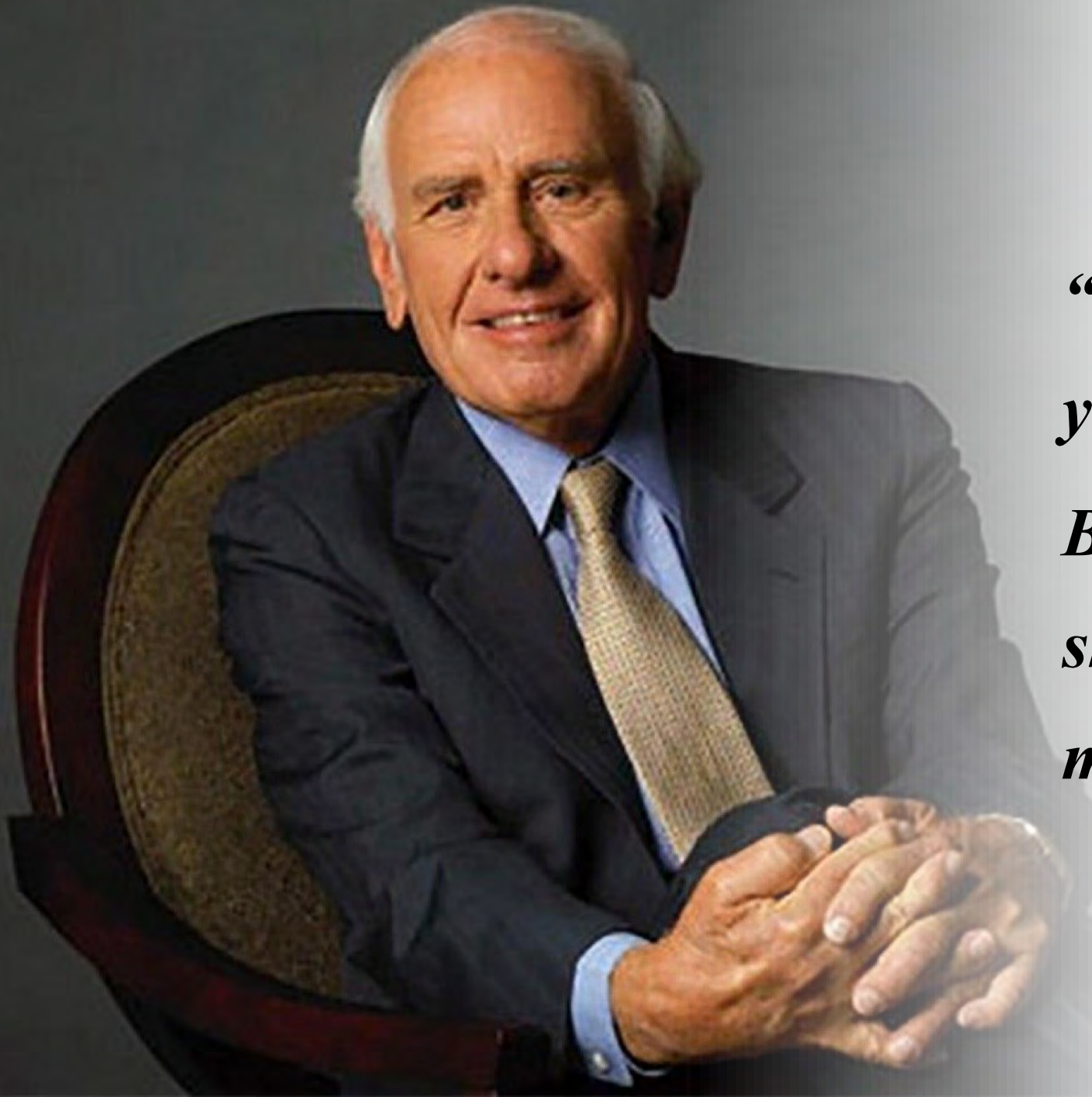
*“Remember: when  
disaster strikes,  
the time to prepare  
has passed”*

**Steven Cyros,**  
President at Department  
of Land Transfer Information, CA

# The 4<sup>th</sup> R: Reduction

## Continuous learning

- 2004: established a Primary Sector Recovery Policy;
- 2006: helped establish Rural Support Trusts throughout the country;
- 2016: After Kaikoura Earthquake, we encouraged Rural Advisory Groups.
- 2020: Regular meetings of Communications Managers (e.g., COVID, Bovis) – one source of the truth;
- 2024: Leading a national effort to increase the number of New Zealanders trained to care for and handle companion animals during Civil Defence emergencies.



*“If you just communicate,  
you can get by.*

*But if you communicate  
skillfully, you can work  
miracles”*

***Jim Rohn***



# Communication in a crisis

Communication serves as a critical link between government, experts, and farmers/rural communities;

Key:

- **Accuracy and Clarity:**
  - Reports must be from reliable sources and presented clearly to avoid confusion.
- **Timely Updates:**
  - Fast dissemination is crucial in response phases.
- **Focus on Solutions:**
  - Reports should not only cover damage but also highlight recovery and resilience-building efforts.
- **Reassurance - human Stories:**
  - Stories of affected farm families foster empathy and public support.

# Take home points

- **We're in the roaring 40s;**
  - expect events.
- Climate change is making it worse;
- Failing to plan = Planning to fail;
- MPI is responsible for animal welfare and rural communities;
- On Farm Support is on the ground **to support in the '4Rs'**;
- Honest communication is key.



Contact me:



[john.roche@mpi.govt.nz](mailto:john.roche@mpi.govt.nz)

Follow me:



Down to Earth Advice Ltd

Thought for the Day



[@down2earth\\_john](https://twitter.com/down2earth_john)



***“It is easier to build strong children than to repair broken men”***

- Frederick Douglas

