



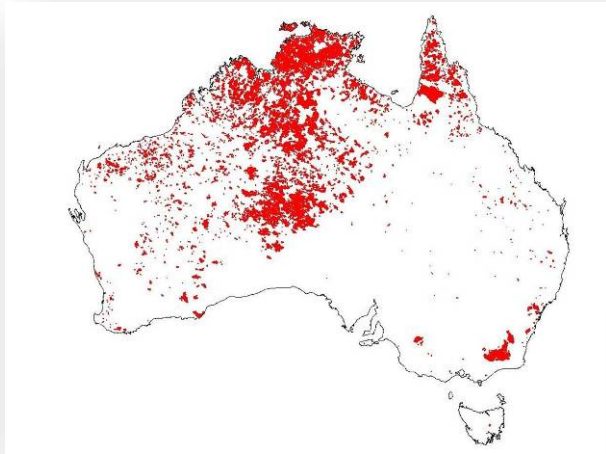
# Gary Morgan AFSM

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**Area burnt  
2002 / 2003**

**AUSTRALIA**  
**Total Population**

24 million

**Land Mass**

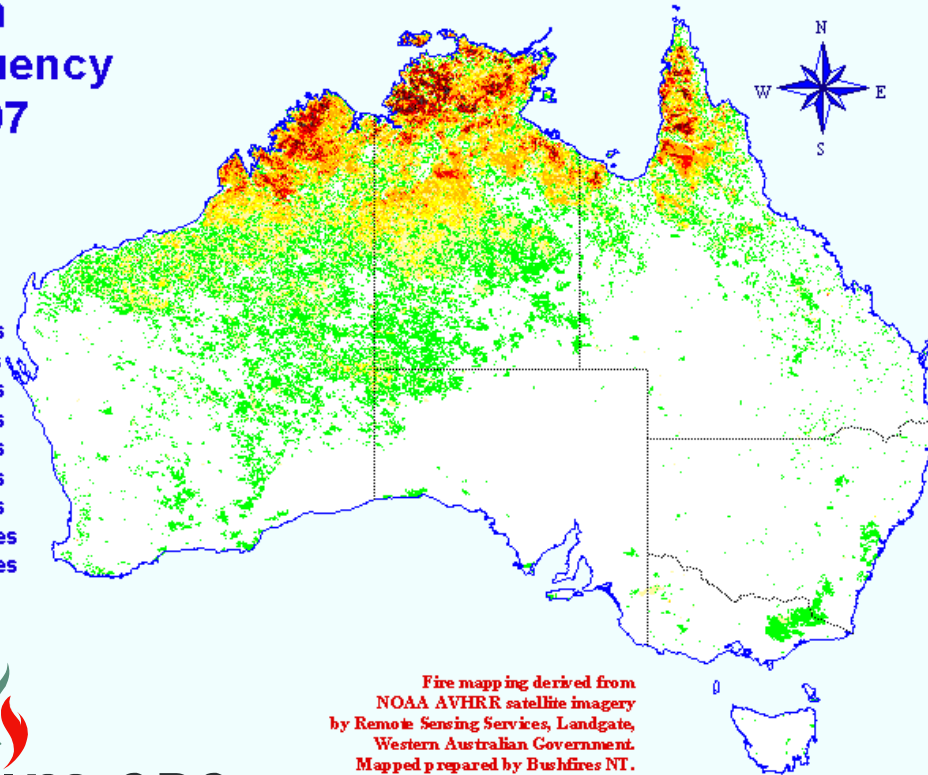
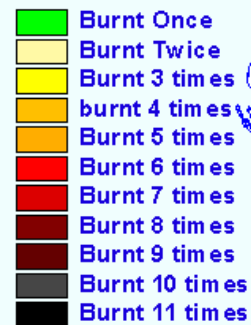
7,692,024 km<sup>2</sup>

**Fires**

Approx. 45,000 wildland fires per year  
Approx. 1.2m ha prescribed fire per year

**Area burnt  
1997 - 2007**

**Australian  
Fire Frequency  
1997 - 2007**



Fire mapping derived from  
NOAA AVHRR satellite imagery  
by Remote Sensing Services, Landgate,  
Western Australian Government.  
Mapped prepared by Bushfires NT.

  
**bushfire** CRC











2009 Black Saturday fire, Kinglake.  
Photo: McCaffrey-USDA Forest Service











# Wildland fire – dealing with a growing problem.

- An increased incidence of wildland fires is occurring across Australia.
- Not just about fire – it is about protecting land, threatened species, assets, air quality, water catchments, economic livelihood and community resilience.
- Good land management leads to good wildland fire outcomes.





A large fire is burning in a field, with thick black smoke rising into the sky. In the background, a power line tower is visible. The scene is hazy and orange-tinted, suggesting a wildfire or a large-scale fire. The text is overlaid in red, bold, sans-serif font.

**Mercury is rising?**  
**How do we build resilience?**

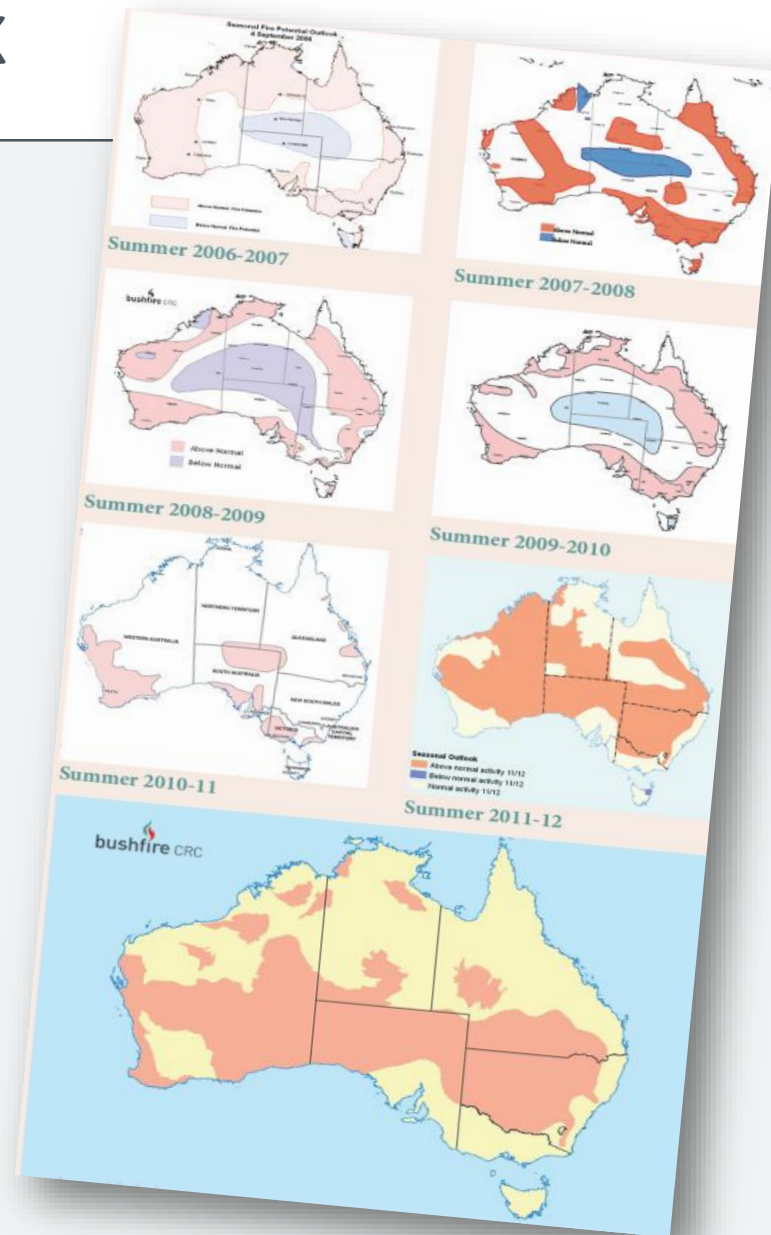
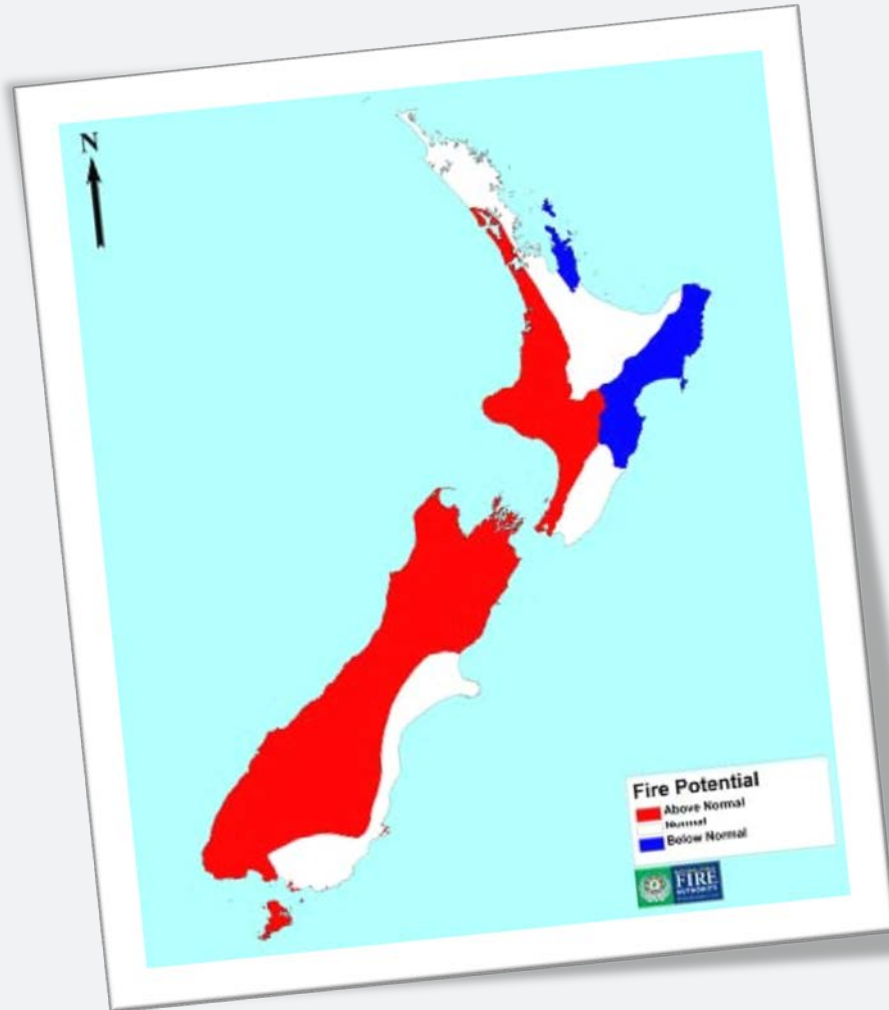




# Where does the fault lay?

- **Legislation?**
- **Our suppression focus rather than land management focus and appropriate fire use?**
- **Inadequate resourcing to meet the land management objectives?**
- **Our lack of fire and/ or land management knowledge – need for research?**
- **Poor communication?**
- **Inability convey messages which provide the right results?**
- **Not learning from history?**

# BUSHFIRE SEASONAL OUTLOOK









# Improved data collection and analysis is required

- **Current situation in Australia:**
  - No national agreement of data to be collected for wildland fires.
  - Varying methods for data capture and accuracy of data collected.
  - Some degree of doubt in the usefulness of data.
  - Difficult to harmonize and conduct trend analysis.



# Improved data collection and analysis is required

- Fire and Land Management agencies will benefit from their relationships with many other Australian agencies including:
  - Commonwealth Bureau of Meteorology.
  - Bushfire and Natural Hazards Cooperative Research Centre.
  - Cooperative Research Centre for Spatial Information.
  - CSIRO.
  - GeoScience Australia.
  - A/ NZ Forest Fire Management Group.
  - Australasian Fire and Emergency Services Authority.
  - Institute of Foresters of Australia.

# Australia may make use of data which is currently considered outside fire management:

For consideration:

- Predictions of population growth within the forested landscape.
- Young adults in need – drugs, homeless.
- Mental illness patients.
- Arsonists known to police.
- Forest health - insect and disease outbreaks.
- Changed agricultural practices – grazing , cropping, burning, spraying, direct drilling, irrigation.
- Kangaroo populations changes.





# Australia needs to determine:

1. **What is the desired landscape in a fire prone environment?**  
(Healthy forest, no lives lost, improved biodiversity, reduced GHG emission, improved threatened species habitat, minimal smoke disruption and reduced human health impacts)
2. **What are the performance measures?**
3. **What data should be collected for analysis?**
4. **How should the data be collected?**
5. **Will the data be compatible with that from other countries?**







# International Work on Fire Management

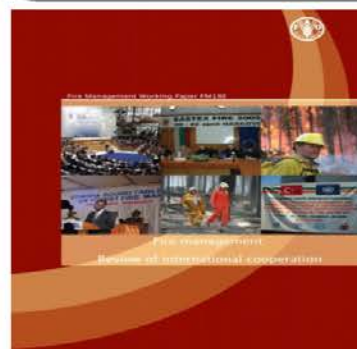
## Global fire management strategy

### Strategy to enhance international cooperation in fire management

Global  
assessment  
2006



Review of  
international  
cooperation  
2006



Voluntary  
guidelines:  
principles  
and strategic  
actions



Implementation:  
Actions  
Alliance





**Australia is currently collecting:**



- 1. Area burnt by wildland fire (unplanned fire)**
- 2. Area burnt by prescribed wildfire (planned fire)**

**To report under the Montreal Process in its State of the Forest Report for 2018**



# Landscape performance measures –Risk based.

## 1. Risk Coverage:

- (i) The percentage of land that has a plan that defines the acceptable risk of fire.
- (ii) How that level of risk will be achieved; and how each type of fire will be managed.

## 2. Inappropriate Fires:

- (i) Percentage of area burnt by fires that fail the land management objectives; and
- (ii) Percentage of fires that fail the land management objectives.

## 3. Risk Practice Followed:

The percentage of prescribed fires that have records showing that procedures described in the risk based approach were followed.

# Additional information FFMG is collating to assist ABARES

1. **What is the most appropriate fire data that you would recommend to use for compilation of Indicator 3.1b in the SOF Report?**

**(These could be spatial or tabular, including one or more fire footprints, burn frequency and severity)**

2. **Advise of other remotely sensed, satellite-derived datasets (from satellites such as AVHRR, Modis, Landsat or Himawari) that you may be aware of containing better data that you would like to obtain to help answer the information required for Indicator 3.1d in the SOFR.**



## Australia needs:

1. High quality, nationally harmonized, accurate wildland fire and associated relevant data for analysis to help Australians learn to live better with fire.
2. To become actively involved in the Global Wildfire Information System.

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