

CSIRO REPORT ON CLIMATE AND DISASTER RESILIENCE

TERMS OF REFERENCE

Australia's climate is changing. The science tells us the effects of emissions already in the atmosphere will continue to be felt in coming decades, even under the most ambitious global emissions reduction scenarios.

This will require Australia to build our ability to resist, absorb, accommodate, recover and transform in the face of our changing climate, including the effects of longer, hotter, drier summers, coupled with changes to the frequency and severity of cyclones and floods.

Climate and disaster resilience is the collective responsibility of all sectors of society, including all levels of government, business, the non-government sector and individuals, with the Commonwealth playing an important leadership role.

This will require the Australian community to engage with issues including how we manage native vegetation, design public infrastructure, allow asset protection zones on private property, where we allow structures to be built, the materials used and standards to which they are built, and how we manage seasonal and structural risk reduction activities, such as hazard reduction burning and construction of flood levees.

To support these efforts and ensure they are informed by science, the Prime Minister has asked the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to report on practical measures for Australian governments to improve Australia's climate and disaster resilience. CSIRO will work in close partnership with the Chief Scientist, Dr Alan Finkel, who will chair an expert advisory panel.

Timeframes and deliverables:

CSIRO will provide a report to the Prime Minister on practical options for Australian governments to support and improve Australia's climate and disaster resilience through the following key deliverables:

- Early March 2020: A preliminary report, for consideration at the Council of Australian Governments (COAG) March meeting, with
- explanation of the key scientific issues for Australia's climate and disaster resilience;
 - detail on strengths and gaps in Australia's preparedness and comparison with international counterparts;
 - options to be considered in advance of the 2020-21 bushfire season; and
 - identification of practical resilience measures that warrant further investigation.
- 30 June 2020: A final report with implementable recommendations on building Australia's climate and disaster resilience in the immediate and long-term.

Scope of the Review

The report will identify practical measures to build climate and disaster resilience at local, regional and national scales, including:

- a. Measures for Commonwealth, state and local governments as well as business, not-for-profits and the community, including
 - i. short term measures that can be implemented ahead of the 2020-21 bushfire season, and
 - ii. medium and longer term measures for broader climate and disaster resilience.

Areas to be considered will include, but not be limited to:

- a. Integrating climate and disaster resilience considerations into land use and infrastructure planning, zoning and development approvals, construction, environmental management, and agricultural practices;
- b. Capability of governments and government agencies, including emergency services, to target threat warnings and public safety communications;
- c. Strengthening hazard modelling and weather satellite data through improved prediction models and data collection;
- d. Protecting Australia's unique natural assets;
- e. A strategic and scientific approach to hazard reduction burning and vegetation management incorporating traditional indigenous knowledge and management; and
- f. Improved use of science and technology, including for early detection and management, and situation reporting to support responses to natural disasters by Australian governments, volunteer organisations and the community.

The review should build on the Government's National Climate Resilience and Adaptation Strategy, Climate Science Strategy and the National Disaster Risk Reduction Framework and synthesise past scientific work where appropriate, but not duplicate existing work such as the National Environmental Science Program.

The report will have regard to:

- a. Evidence on best practice and cost effective approaches, including internationally;
- b. Current and already completed work on climate and disaster resilience and adaptation, including state and territory-based resilience and adaptation initiatives, inquiries to be delivered in early 2020, the 2015 Productivity Commission report on Natural Disaster Funding Arrangements, and the 2012 Productivity Commission report on Barriers to Effective Climate Adaptation;
- c. Work being coordinated by the Government through the bushfire roundtables, including mapping of research and technology capabilities by the Office of the Chief Scientist;

- d. The work of Commonwealth Ministers in delivering the Commonwealth's climate resilience initiatives; and
- e. Likely global emissions scenarios under existing international emissions reductions frameworks.

Expert Advisory Panel:

CSIRO will work in close partnership with an Expert Advisory Panel (EAP) chaired by the Chief Scientist, Dr Alan Finkel. The EAP will include individual experts in areas such as climate, weather, bushfire and natural disaster science, emergency management, agriculture, environment, land use planning and construction, and government.

Stakeholder consultation:

CSIRO will undertake direct consultation with state and local government bodies, community and industry stakeholders during the second phase of the project.

Governance arrangements:

CSIRO will provide an independent report to the Prime Minister to underpin discussions in COAG on future actions.

The Australian Government Disaster and Climate Resilience Reference Group co-chaired at the Deputy Secretary level by the Department of Agriculture, Water and Environment and the Department of Home Affairs will provide a forum for CSIRO to update agencies on its work.