



Reference

Data: What the Royal Commission into National Natural Disaster Arrangements says

The Royal Commission Report said that good decision making requires consistent and up-to-date knowledge, data and information.

Here is an edited extract of *Chapter 4*.

Edited extract

4.1 Good decision making needs to be based on good information. Decision-making for national coordination of disaster management requires knowledge, data and information to be shared, consistent and up to date. Decision-making extends well beyond the immediate crisis or operational phases of a disaster.

4.3 The Australian Government has acknowledged that it can, as it should, play a national leadership role in coordinating national data, information and standard setting, in consultation with states and territories. Australian, state and territory governments should prioritise the implementation of data harmonisation, and national data standards, create common information platforms and share technologies. This will enable collaboration in the production, analysis, access, and exchange of information, data and knowledge about climate and disaster risks.

4.6 Australian, state and territory governments should explore the feasibility and practicalities of developing and maintaining nationally consistent assessments and projections of the frequency, intensity and spatial distribution of natural hazards in Australia. Exposure and vulnerability information, at a localised level, is also required to give a more complete understanding of disaster risk and impacts.

Nationally consistent and nationally comparable data

4.22 Nationally consistent data and nationally comparable data can facilitate the sharing of information and the development and implementation of national information systems.

4.25 Geoscience Australia, CSIRO, local governments, peak bodies, and the insurance industry have also all advocated making natural disaster information data nationally consistent.

4.26 State and territory governments have shown a strong interest in understanding and developing or adopting best practice, including by sharing and learning from each other.

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4.27 The Australian Government supports improved data governance and greater harmonisation of standards and technologies to enable collaboration in the production, analysis, access, and exchange of information, data and knowledge about climate and disaster risks. Various Australian, state and territory agencies support improvements in consistent risk data in one domain or another, with some referring specifically to national standards, some noting support for harmonisation and others focusing on the outcome of consistency, rather than how they get there.

4.28 State and territory governments expressed the following reservations regarding national information systems:

- There should be an identified need for any national information system
- Any national information should not duplicate or undermine the information systems currently used by each state and territory
- Local and downscaled information should be available to local decision makers
- Collaboration to develop or implement any national information system should extend to state and territory agencies with relevant expertise and knowledge.

Pursuing consistent data: Harmonisation versus standardisation

There are multiple ways of pursuing consistent data. Two common ways are through data harmonisation and data standardisation.

4.31 A harmonisation approach brings together various types, levels and sources of data such that they can be made compatible and comparable. A standardisation approach relies on agreed minimum standards as to how data are recorded, collated and stored.

4.32 Harmonisation differs from standardisation in that it does not impose a single standard, methodology or norm, but rather seeks to find ways of integrating information gathered through disparate methodologies. A harmonisation approach allows information systems to be brought together to ensure comparability of the data delivered by those systems and provide a broader picture. It also allows for the integration of the best parts of each system, without replacing the systems already being used by each state and territory.

Vulnerability Information

4.83 The NDRRF speaks to the long-term and complex nature of disasters, including natural disasters:

The impacts of disasters can be long term, complex, and intangible. Collectively, we are only now beginning to fully understand indirect, flow on and cumulative effects of disasters. We do know that disasters can trigger long-term challenges across a range of areas, including reduced education and workforce participation, increased crime, and physical and mental health and wellbeing.

4.84 The Department of Home Affairs released Australia's Vulnerability Profile in 2018. It was a precursor to the NDRRF. Australia's Vulnerability Profile identified whole-of community influences on vulnerability regarding disasters, including:

- Placement of communities, infrastructure and assets, and

- Access and supply of essential information, goods and services.

4.85 CSIRO, in its technical report supporting the development of Australia's Vulnerability Profile, noted that the complex nature of climate and disaster risk is not assisted by a 'response and recovery' focus on risk management. Much of the existing effort in disaster risk reduction, or disaster resilience, is focused on improved characterisation or quantification of risk – particularly the elements of likelihood, and impact (or consequence) through a standard risk assessment lens.

4.86 We heard that a more mature understanding of the root causes and effects of disaster risk and, in particular, systemic vulnerability is needed, so that our efforts to mitigate the risk and build resilience can meet the challenges of the future.

4.87 Vulnerability can be physical and relate to the susceptibility to damage of the built environment. This not only includes the vulnerability of physical infrastructure but also the vulnerability of infrastructure systems where damage to components disrupt service delivery. Vulnerability also includes the vulnerability of people and the likelihood of injury or death in a natural hazard event.

4.88 For the most part, our existing lifestyles and daily activities are heavily dependent on interconnected systems for the delivery of essential services when we need them (e.g. energy, water, food, health and education services, transport, and communications). These complex and interconnected systems support our society and influence our resilience or vulnerability to disaster.

This edited extract has been sourced from the

Royal Commission into National Natural Disaster Arrangements <https://naturaldisaster.royalcommission.gov.au>

Read this specific section in full [Chapter 4: Supporting better decision](#)