

Australia Exposed: Exposure Information for Ensuring Australia's Community Safety

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SUMMARY

Australia is a country of diverse communities and environments. At certain times of the year it is possible to have simultaneous bushfires raging in the west, widespread flooding in the south-east and Tropical Cyclones threatening landfall in the north. These natural disasters have a significant impact on Australia's communities, economy and the environment. Although we cannot prevent natural disasters, having a better understanding of the 'exposure' to these events can better inform effective prevention, preparedness, response and recovery decision-making.

Exposure refers to the 'elements at risk' from infrastructure failure or natural and man-made hazard events. Knowing who and what is at risk is imperative for the role of the Attorney General's Department Emergency Management Australia (EMA) to administer the Australian Government's financial assistance for response and recovery during major natural hazard events. Lacking spatial expertise, EMA called on Geoscience Australia (GA) to enhance their decision-making process by providing innovative, timely and efficient access to fundamental nationally-consistent spatial data and disaster event information to increase situational awareness.

To address this requirement GA designed the Exposure Report – a streamlined yet detailed snapshot of exposure information for any particular area of interest across Australia. The Exposure Report is generated by consolidating a range of national fundamental datasets to extract relevant attributes and present the information in a timely, concise and easily accessible 3-page report. The automated process can quickly aggregate information for a variety of standard administrative boundaries, or a customised area of interest such as a hazard-specific footprint. It includes important exposure information such as estimated population and demographic indicators, buildings, businesses and infrastructure asset counts and reconstruction costs, as well as identifying agricultural areas, commodities and their value. Most importantly, it has been customised to provide the information

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EMA requires, in a way that can be readily accessed and interpreted to make timely and informed emergency management decisions. In addition, the request and delivery of the report has been integrated into EMA's incident management system to simplify the coordination and accountability between government departments.

GA has enhanced the Australian Government's ability to prioritise response and recovery assistance by improving the timeliness and access to detailed exposure information. EMA now has ready access to consistent baseline exposure information for any area across Australia leading to, not only better informed response and recovery, but also planning, preparedness and mitigation initiatives to build more resilient communities in the future.

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