
D Emergency management sector overview

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Attachment tables

Attachment tables are identified in references throughout this sector overview by a 'DA' prefix (for example, table DA.1). A full list of attachment tables is provided at the end of this sector overview, and the attachment tables are available from the Review website at www.pc.gov.au/gsp.

D.1 Introduction

This sector overview provides an introduction and the policy context for the government services reported in 'Fire and ambulance services' (chapter 9) by providing an overview of the emergency management sector.

Major improvements in reporting on particular emergency management services this year are identified in Fire and ambulance services (chapter 9).

Policy context

A national, coordinated and cooperative effort is needed to enhance Australia's capacity to withstand and recover from emergencies and disasters (COAG 2009). Accordingly, the Council of Australian Governments (COAG) adopted the *National Strategy for Disaster Resilience* on 13 February 2011 (COAG 2011). The strategy promotes a 'resilience' based approach to natural disaster policy and programs (COAG 2009). The strategy recognises that disaster resilience is a shared responsibility for individuals, businesses and communities, and involves activities as diverse as risk assessment, legislation, community development, emergency response, urban development and land use management, and community recovery.

The Australia-New Zealand Emergency Management Committee (ANZEMC), established by agreement between COAG and the New Zealand Government is Australia's national consultative emergency management forum. The ANZEMC reports to the Standing Council on Police and Emergency Management, other standing councils as required, and has a direct reporting line to COAG for matters requiring whole-of-government consideration (AGD 2013b).

The ANZEMC is supported by four sub-committees:

- Capability Development Sub-Committee — strategic nation-wide and whole-of-governments' emergency management capability development
- Recovery Sub-Committee — holistic disaster recovery policy and planning
- Community Engagement Sub-Committee — strategic nation-wide whole-of-governments' emergency management community engagement
- Risk Assessment Measurement and Mitigation Sub-Committee — national approaches to risk assessment, measurement and mitigation.

Sector scope

Emergency management is the practice of managing the impact from emergency events (box D.1) to individuals, communities and the environment (AGD 2012). Emergency management in Australia has adopted an approach that aims to be:

- *comprehensive* — encompassing all hazards and recognising that dealing with the risks to community safety requires a range of activities to prevent, prepare for, respond to and recover from any emergency
- *integrated* — ensuring the involvement of governments, all relevant agencies and organisations, private sector and the community.

Box D.1 **Emergency events**

An emergency event is an event that endangers or threatens to endanger life, property or the environment, and which requires a significant and coordinated response (AGD 2012). It encompasses:

- structure fires
- rescues — including road crash rescues and marine rescues
- medical emergencies and transport
- natural disaster events — that is, bushfire (landscape fire), earthquake, flood, storm, cyclone, storm surge, landslide, tsunami, meteorite strike, and tornado
- consequences of acts of terrorism
- other natural events — such as drought, frost, heatwave, or epidemic
- disaster events resulting from poor environmental planning, commercial development, or personal intervention
- technological and hazardous material incidents — such as chemical spills, harmful gas leaks, radiological contamination, explosions, and spills of petroleum products
- quarantine and control of diseases and biological contaminants.

Source: AGD (2012).

Emergency events vary in size and intensity affecting individuals (such as in medical emergencies), household/business assets (such as in building fires), or community, economy and the environment (such as in natural disasters).

Events of considerable magnitude and duration, such as earthquakes, cyclones and bushfires, can involve international, interstate and other cooperation and support. Jurisdictions are increasingly interacting and contributing to programs and providing operational response across Australia and to a number of significant emergency events around the Pacific and Indian Ocean rim.

State and Territory governments

State and Territory governments are responsible for regulatory arrangements with the objective of protecting life, property and the environment. They have primary responsibility for delivering emergency services directly to the community through emergency service organisations.

Emergency service organisations range from government departments to statutory authorities, and to smaller branches, agencies or services within larger departments or authorities (table DA.1). In addition, non-government organisations, supported by State and Territory government funding and legislation, provide emergency management services, such as St John Ambulance in WA and the NT.

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- *Fire service organisations* — work closely with other government departments and agencies (such as State/Territory Emergency Services, police, ambulance services and community service organisations) to minimise the impact of fire and other emergencies on the community (chapter 9).
 - *State/Territory Emergency Service organisations* — help communities prepare for, respond to, and recover from unexpected events and play a major role in each State and Territory for hazards as diverse as:
 - road crash rescue incidents and extrications (other than in the ACT, where ACT Fire and Rescue is responsible for all road crash rescue services)
 - flood, earthquake, tsunami, tropical cyclone and marine search and rescue
 - search and rescue services (table DA.11).
 - *Ambulance service organisations* — work within the health system providing emergency and non-emergency patient care and transport, as well as fostering public education in first aid. They are responsible for providing responsive, high quality specialised medical care in emergencies. This includes working with other emergency services organisations to provide pre-hospital care, rescue, retrieval, and patient transport services (chapter 9).
 - *Marine rescue and coast guard organisations* — marine rescue and boating safety and communication services.
 - *Lifesaving organisations* — water safety, drowning prevention and rescue services.

Australian Government

The primary role of the Australian Government is to support the development, through State and Territory governments, of a national emergency management capability. Australian Government assistance takes the form of:

- financial, physical and technical assistance in large scale emergency events
- financial assistance for natural disaster resilience, mitigation and preparedness
- support for emergency relief and community recovery
- funding for risk management and comprehensive risk assessment programs
- contracting Telstra to provide the national Triple zero (000) emergency call operator service, and regulating the provision of this service
- community awareness activities.

Australian Government agencies also have specific emergency management responsibilities, including: the control of exotic animal and plant diseases; aviation and maritime search and rescue; the management of major marine pollution (beyond coastal waters); the prediction of meteorological and geological hazards; the provision of firefighting services at some airports and some defence installations; human quarantine; and research and development.

The Australian Government also manages the Crisis Coordination Centre, which maintains a 24-hour a day situational awareness, analysis and reporting capability and an emergency management planning capability.

Local governments

Local governments in some states and territories are involved to varying degrees in emergency management. Their roles and responsibilities may include:

- considering community safety in regional and urban planning by assessing risks, and developing emergency event mitigation measures and prevention plans
- improving community preparedness through local emergency planning
- issuing hazard reduction notices to private land holders and clearing vegetation in high risk public areas
- collecting statutory levies to fund fire and other emergency services
- allocating resources for response and recovery activities
- providing financial and operational assistance to voluntary emergency services.

Profile of the emergency management sector

Detailed profiles for fire events and ambulance events within the emergency management sector are reported in chapter 9, and cover:

- size and scope of the individual service types
- funding and expenditure.

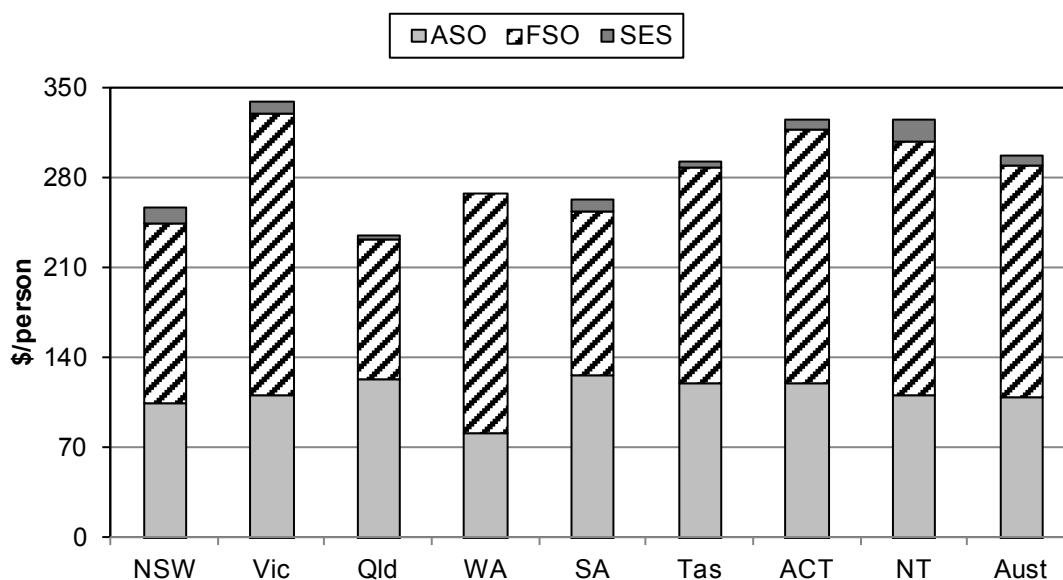
Descriptive statistics for State/Territory Emergency Service organisations are presented, by jurisdiction, in tables DA.11–DA.14.

Emergency service organisation costs

Nationally in 2012-13, total expenditure across ambulance, fire and emergency service organisations was \$6.3 billion, or \$276.07 per person in the population,

although some caution should be taken when interpreting these data (figure D.1 and table DA.3).

Figure D.1 Expenditure of emergency service organisations, 2012-13^{a, b, c}



SES = State/Territory emergency service organisation; **FSO** = Fire service organisation; **ASO** = Ambulance service organisation

^a Data may not be comparable across service areas and comparisons could be misleading. Expenditure for SES organisations were collected for the first time for the 2013 RoGS. It is anticipated that the comparability of these data will improve over time as a number of scope and data definition issues are resolved between jurisdictions. ^b The figures provided for WA as FSO expenditure include total costs of services for the SES, Fire and Rescue Services, Bush Fire Services and Volunteer Marine Rescue Services. ^c Tasmania's SES expenditure includes activities that support broader whole-of-government emergency management functions.

Source: State and Territory governments; table DA.3.

Cross-cutting and interface issues (section D.3) highlights that a range of other government agencies, such as police and health services, also bear costs in relation to emergency management. In addition, governments also incur costs in relation to government disaster coordination agencies and volunteer marine rescue and lifesaving organisations (the costs of which are not available for this Report).

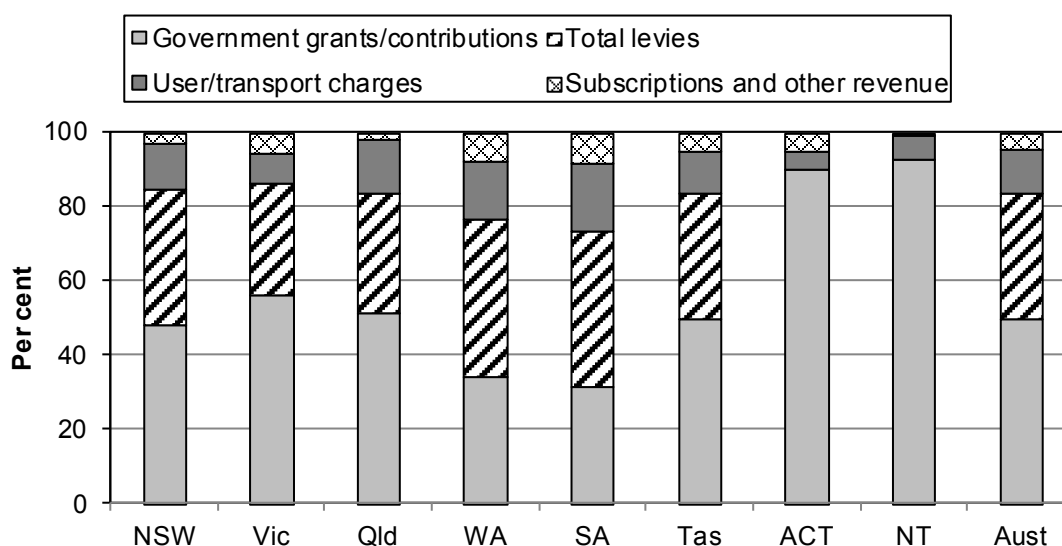
Funding emergency service organisations

The funding of emergency services organisations varies by service and jurisdiction (figure D.2). Funding generally occurs through a mix of:

- government grants — provided to emergency services organisations from State and Territory governments

- fire and emergency service levies — governments usually provide the legislative framework for the imposition of levies on property owners or, in some jurisdictions, from levies on both insurance companies and property owners
- ambulance transport fees — from government, hospitals, private citizens and insurance companies
- other revenue — subscriptions, other fees, donations and miscellaneous revenue.

Figure D.2 **Emergency service organisations funding sources, 2012-13^{a, b}**



^a Data are experimental and may not be comparable across service areas and comparisons could be misleading. Chapter 9 provides further information. ^b Other revenue is equal to the sum of donations and miscellaneous revenue.

Source: State and Territory governments; table DA.2.

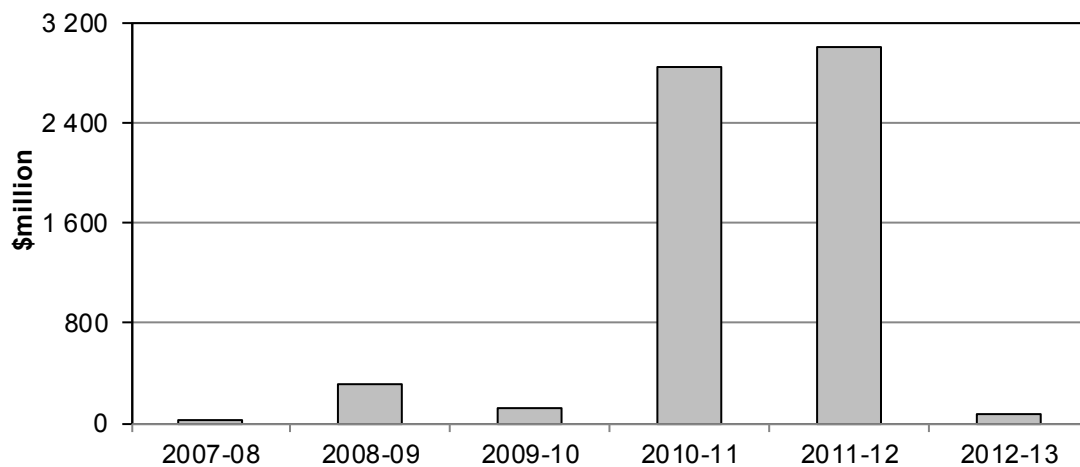
Australian Government funding

The Australian Government provides emergency management funding to State and Territory governments, communities and individuals through a range of programs.

- The Natural Disaster Resilience Program provides funding to the State and Territory governments to strengthen community resilience to natural disasters consistent with the National Strategy for Disaster Resilience. In 2012-13, funding was \$24.0 million (table DA.5). Data by funding to State and Territory governments are available in table DA.5.
- The National Emergency Management Projects program funds projects of national significance that support the implementation of the National Strategy for Disaster Resilience. In 2012-13, \$3.8 million of funding was provided to 32 disaster resilience projects (Australian Government unpublished).

- The Natural Disaster Relief and Recovery Arrangements provides financial assistance to support State and Territory governments with relief and recovery efforts following an eligible natural disaster event. In 2012-13, cash payments for natural disaster events were \$77.1 million, a substantial decrease in real cash payments from \$3.0 billion in 2011-12, which was predominantly related to the Queensland flood crisis in January 2011 (figure D.3). Data by funding to State and Territory governments are available in table DA.6.
- The Australian Government Disaster Recovery Payment is a one-off short term recovery payment that provides support to individuals and communities affected by a disaster. The current rates of payment are \$1000 for eligible adults and \$400 for eligible children. The Australian Government provided approximately \$823 million in 2010-11, approximately \$78 million in 2011-12, and approximately \$171 million in payments for events that occurred in 2012-13 (Australian Government unpublished).

Figure D.3 **Australian Government Natural Disaster Relief and Recovery Arrangements payments (2012-13 dollars)^{a, b, c}**



^a Time series financial data are adjusted to 2012-13 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2012-13 = 100) (table 2A.53). The GGFCE replaces the Gross Domestic Product implicit price deflator used in previous editions. See chapter 2 (section 2.5) for details. ^b Data presented are the total cash payments in current dollars. ^c State/Territory expenditure for Natural Disaster Relief and Recovery Arrangements eligible events can be made within 24 months after the end of the financial year in which the relevant disaster occurred unless an extension is granted. Therefore, costs reported for any given financial year may include payments for events that occurred in the previous years.

Source: Australian Government (unpublished); table DA.6.

Emergency management human resources

Nationally in 2012-13, 33 949 FTE people were employed by emergency service organisations. Over half, 55.2 per cent, were employed in fire and emergency service organisations, while the remainder were employed by ambulance service organisations (table D.1).

Table D.1 **Salaried personnel in ambulance, fire and SES organisations, 2012-13**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA^a</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
Total ambulance, fire and emergency service organisations									
Ambulance service organisations									
ASOs	4 342	3 667	3 878	1 275	1 274	368	244	172	15 220
Fire and emergency service organisations (FSO and SES)									
FSOs	4 696	6 749	3 101	1 448	1 072	452	438	252	18 208
SES	254	173	na	na	41	26	8	19	na
Total	4 950	6 922	3 101	1 448	1 113	478	446	271	18 729
Total	9 292	10 589	6 979	2 723	2 387	846	690	443	33 949

ASO = ambulance service organisation. **FSO** = fire service organisation. **SES** = State and Territory emergency services.

^a FESA provides a wide range of emergency services under an integrated management structure. Data cannot be segregated by service. Data for the Department of Environment and Conservation are not included. **na** Not available.

Source: State and Territory governments (unpublished); table DA.4.

In 2012-13, 251 677 fire, ambulance and emergency service volunteers were on the records of emergency service organisations (table DA.4). Emergency services volunteers play a significant role in the provision of emergency services in Australia, particularly in rural and remote areas, by providing:

- response services in the event of an emergency
- community education, cadet schemes and national accredited emergency training
- emergency event support and administrative roles
- community prevention, preparedness and recovery programs.

Although volunteers are not paid wages and salaries, emergency service volunteers provide a valuable service to their communities (box D.2). However, the government and community do bear some costs in receiving this service, including:

- governments — who provide funds and support through infrastructure, training, uniforms, personal protective equipment, operational equipment and support for other operating costs

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- employers of volunteers — particularly self-employed volunteers, who incur costs in supporting volunteer services such as in-kind contributions, lost wages and productivity, and provision of equipment.

Volunteer activity has implications for the interpretation of financial and non-financial performance indicators. Notional wages' costs for volunteers are not reflected in monetary estimates of inputs or outputs, which means that data for some performance indicators may be misleading where the input of volunteers is not counted but affects outputs and outcomes.

Box D.2 Value of volunteers to State/Territory Emergency Services

The Australian Council of State Emergency Services funded a study to estimate the value of State/Territory Emergency Services volunteer time based on data provided by the agencies in NSW, Victoria, SA and Tasmania. Two approaches were used to estimate the economic value of State/Territory Emergency Services volunteer time:

- *global substitution method* — an average wage rate is used to value all activities
- *task specific substitution method* — each task is valued at its market wage rate.

In both approaches, operational tasks and time, including emergency response and community activities, were valued, as well as time spent on training, travel, administration and other tasks.

The value of volunteer time for community preparedness services, operational response, training and unit management (without stand-by time) from 1994-95 to 2004-05 averaged around \$52 million (NSW), \$19 million (Victoria) and \$12 million (SA) a year.

Stand-by time accounts for about 94 per cent of the total time in NSW and Victoria and about half the total value for NSW and 39 per cent for Victoria. The total time volunteers made available including stand-by time is estimated to be more than \$86 million and \$41 million a year to NSW and Victoria respectively. For NSW the annual value of a volunteer's contribution was estimated as \$15 903. While the indirect or secondary social capital benefits that may arise through volunteerism were not valued, the study shows that volunteers provide a valuable, tangible benefit to their communities.

Source: Ganewatta and Handmer (2007).

Social and economic factors affecting demand for services

The size, severity, timing, location and impacts of emergencies are difficult to predict. However, many known factors increase vulnerability to emergency events (COAG 2011). Work-life patterns, lifestyle expectations, demographic changes, domestic migration, and community fragmentation are increasing community

susceptibility and demand for emergency management services. In addition, scientific modelling suggests that climate change will likely result in an increased frequency and severity of extreme weather events (COAG 2009).

Factors that can influence disaster resilience include remoteness, access to services, population density and mobility, socio-economic status, age profile, and percentage of population for whom English is a second language. Within individual communities, certain members are more vulnerable and may need tailored advice and support.

- Research shows socially-disadvantaged communities are more heavily impacted by emergency events. For example, the fire death and injury rates of Australia's most disadvantaged areas (as defined by the 2001 Socio-Economic Indexes for Areas) are 3.6 (Australia) and 2.6 (SA) times that of the least disadvantaged areas respectively (Dawson and Morris 2008). Similarly, in WA it has been found that culturally and linguistically diverse communities are more vulnerable to fire events (FESA 2010).
- Population growth has been experienced across Australian regional centres, coastal areas, rural areas around major cities, alpine areas and along inland river systems. Such areas are more susceptible to emergency events and require greater resources when an emergency event occurs (Victorian Bushfires Commission 2010).
- Population change is expected to lead to an increased proportion of older Australians living in the community (Australian Government 2010). As more people fall into the older age groups their need to call for assistance in an emergency generally increases — be it individual medical emergencies requiring an ambulance, or assistance in preparing for and/or responding to a community wide emergency (such as for a natural disaster).

Service-sector objectives

The broad aim of emergency management is to reduce the level of risk to the community from emergencies. The framework of performance indicators in this sector overview is based on objectives for emergency management established in the *National Strategy for Disaster Resilience* and that are common to all Australian emergency services organisations (box D.3).

Box D.3 **Objectives for emergency management**

Emergency management services aim to build disaster resilient communities that work together to understand and manage the risks that they confront. Emergency management services provide highly effective, efficient and accessible services that:

- reduce the adverse effects of emergencies and disasters on the community (including people, property, infrastructure, economy and environment)
- contribute to the management of risks to the community
- enhance public safety.

Disaster resilient communities

The Council of Australian Governments (COAG) adopted the *National Strategy for Disaster Resilience* on 13 February 2011 (COAG 2011). Under the agreement Australian governments adopted an emergency management strategy that promotes a ‘resilience’ based approach to natural disaster policy and programs (COAG 2011).

The goal of a disaster resilient community is one that is better able to withstand an emergency event and have an ability to recover from residual impacts whether individuals or communities are hit by medical emergencies, extreme weather events, bushfires, transport accidents, industrial emergencies, or other threats to health and safety (COAG 2009).

Prevention/mitigation, preparedness, response and recovery

To meet the objectives of emergency management, emergency service organisations classify their key functions in managing emergency events to the prevention/mitigation, preparedness, response and recovery framework. The framework uses the following widely accepted ‘comprehensive approach’.

- *Prevention/mitigation* — The results of measures taken in advance of an emergency aimed at decreasing or eliminating its impact on the community and the environment. Activities that contribute to prevention and mitigation include: advice on land management practice and planning; the inspection of property and buildings for hazards, compliance with standards and building codes, and levels of safe practices; the preparation of risk assessment and emergency management plans; risk categorisation for public information campaigns; and public information campaigns and educational programs to promote safe practices in the community.
- *Preparedness* — The results of measures to ensure, if an emergency occurs, that communities, resources and services are capable of responding to, and coping

with, the effects. Activities that contribute to preparedness include: public education and training; emergency detection and response planning (including the installation of smoke alarms and/or sprinklers); hazardous chemicals and material certification, and the inspection of storage and handling arrangements; the exercising, training and testing of emergency service personnel; and standby and resource deployment and maintenance. Preparedness also involves establishing equipment standards and monitoring adherence to those standards.

- *Response* — The results of strategies and services to control, limit or modify the emergency to reduce its consequences. Activities that contribute to response include: the implementation of emergency plans and procedures; the issuing of emergency warnings; the mobilisation of resources in response to emergency incidents; the suppression of hazards (for example, fire containment); the provision of immediate medical assistance and relief; and search and rescue.
- *Recovery (community)* — The results of strategies and services to support affected individuals and communities in their reconstruction of physical infrastructure and their restoration of emotional, social, economic and physical wellbeing within their changed environment. Activities that contribute to community recovery include: the restoration of essential services; counselling programs; temporary housing; long term medical care; restoration of community confidence and economic viability; and public health and safety information.
- *Recovery (emergency services organisations)* — The results of strategies and services to return agencies to a state of preparedness after emergency situations. Activities that contribute to emergency services recovery include: critical incident stress debriefing; and the return of emergency services organisations resources to the state of readiness specified in response plans.

D.2 Sector performance indicator framework

This sector overview is based on a sector performance indicator framework (figure D.4). This framework is made up of the following elements:

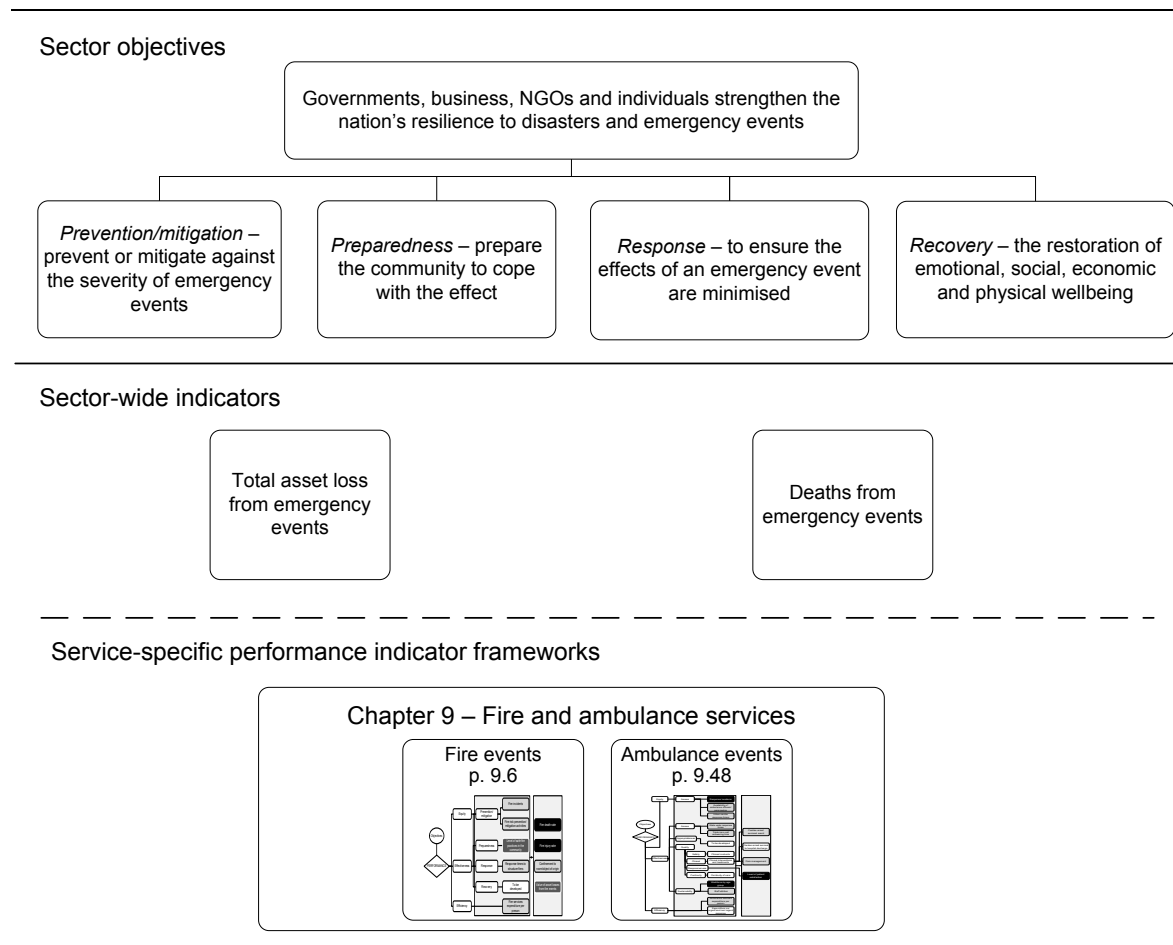
- Sector objectives — five sector objectives are a précis of the key objectives of emergency management (box D.3).
- Sector-wide indicators — two sector-wide indicators relate to the overarching service sector objectives identified in the *National Disaster Resilience Statement* (COAG 2009) and the *National Strategy for Disaster Resilience* (COAG 2011).
- Information from the service-specific performance indicator frameworks that relate to emergency services. Discussed in more detail in chapter 9, the

service-specific frameworks provide comprehensive information on the equity, effectiveness and efficiency of these services.

This sector overview provides an overview of relevant performance information. Chapter 9 and its associated attachment tables provide more detailed information.

Data quality information (DQI) is being progressively introduced for all indicators in the Report. The purpose of DQI is to provide structured and consistent information about quality aspects of data used to report on performance indicators. DQI in this Report cover the seven dimensions in the ABS' data quality framework (institutional environment, relevance, timeliness, accuracy, coherence, accessibility and interpretability) in addition to dimensions that define and describe performance indicators in a consistent manner, and note key data gaps and issues identified by the Steering Committee. All DQI for the 2014 Report can be found at www.pc.gov.au/gsp/reports/rogs/2014.

Figure D.4 Emergency management sector performance indicator framework



Sector-wide indicators

This section includes high level indicators of emergency management outcomes. Many factors are likely to influence these outcomes — not just the performance of government services. However, these outcomes inform the development of appropriate policies and the delivery of government services.

Total asset loss from emergency events

‘Total asset loss from emergency events’ is an indicator of the objectives of governments to reduce the adverse effects of emergencies and disasters on the community (including people, property, infrastructure, economy and environment) and to contribute to the management of risks to the community (box D.4).

Box D.4 Total asset loss from emergency events

‘Total asset loss from emergency events’ data are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers. It does not represent the entire cost of the event. Costs not currently taken into account include the expenses of:

- emergency response by emergency services
- local, State, Territory and the Australian governments — uninsurable assets such as roads, bridges, recreational facilities and the like are not considered. This is of greatest significance in rural and remote areas
- non-government organisations
- local government clean-up
- remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion)
- community dislocation; loss of jobs; rehabilitation/recovery services
- basic medical and funeral costs associated with injuries and deaths.

Events are only recorded where there is a potential for the insured loss to exceed \$10 million. Additionally, many large single losses occur on a day to day basis in Australia that are not part of a larger emergency event.

The prevention/mitigation, preparedness, and response activities of government contribute to reduce the value of total asset loss from emergency events. A low or decreasing value of total asset loss from emergency events is desirable.

(Continued next page)

Box D.4 Continued

Data for these measures are:

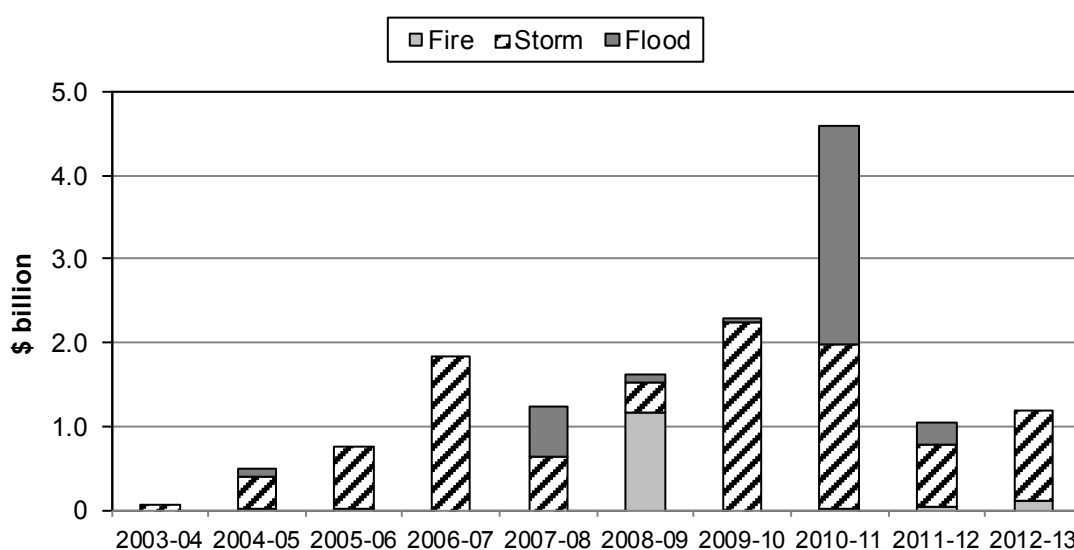
- comparable (subject to caveats) across jurisdictions and over time
- complete (subject to caveats) for the current reporting period. All required 2012-13 data are available for all jurisdictions.

Data quality information for this indicator is under development.

Source: ICA (2013); AGD (2013a).

Nationally, the insured asset loss from emergency events was \$1.2 billion in 2012-13. Other than in 2008-09 — the year of the Victorian bushfires (chapter 9) — insured asset losses are mostly related to flood and storm damage (figure D.5).

Figure D.5 Total asset loss from emergency events, national (2012-13 dollars)^{a, b}



^a Time series financial data are adjusted to 2012-13 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2012-13 = 100) (table 2A.51). The GGFCE replaces the Gross Domestic Product implicit price deflator used in previous editions. See chapter 2 (section 2.5) for details.

^b Total Asset Loss: all insurance losses (claims by policy holders, based on figures from the Insurance Council of Australia). The data are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers. Events are only recorded where there is a potential for the insured loss to exceed \$10 million. ^c While data are available for all jurisdictions, in 2012-13, data are nil or rounded to zero for Victoria, WA, the ACT, and the NT for all events therefore, data are presented as national totals only.

Source: ICA (2013), AGD (2013a); table DA.7.

Annual insured asset losses need to be interpreted with caution as they can be particularly volatile over time because of the influence of large irregular emergency events such as bushfires (chapter 9) and extreme weather events (box D.5).

Box D.5 **Extreme weather events**

In Australia, extreme weather events can bring prolonged and high temperatures (heat waves), high winds and coastal storm surges (such as cyclones in Australia's tropical zones), torrential rain, frosts and hail storms. In Australia's variable climate the Commonwealth Scientific and Industrial Research Organisation (CSIRO) notes that extreme weather events are a part of Australia's climate. The CSIRO predicts that weather events are likely to be more intense resulting in more severe flooding as a result of climate change (CSIRO 2012).

Natural disasters can have a substantial social and economic cost. Recent examples of extreme weather events leading to insured damages greater than \$1 billion include:

- *Cyclone Oswald* — Tropical Cyclone Oswald formed in the Gulf of Carpentaria on 21 January 2013. The cyclone brought with it a heavy monsoonal rainfall system that lasted for approximately one week. Over the course of the week, six people were killed, thousands were forced to evacuate, and 2000 people were isolated by floodwaters for some days requiring emergency supply drops. Approximately 40 water rescues took place by State Emergency Service volunteers. The Insurance Council of Australia estimated the January 2013 cost at \$119 million for New South Wales and \$971 million for Queensland.
- *Queensland floods* — Prolonged and extensive rainfall over large areas of Queensland, led to flooding of historic proportions in Queensland in December 2010, stretching into January 2011. Thirty-three people died in the 2010-11 floods; three remain missing. Some 29 000 homes and businesses suffered some form of inundation. The Queensland Reconstruction Authority has estimated that the cost of flooding events will be in excess of \$5 billion. (The Insurance Council of Australia reports insured asset losses of \$2.4 billion.)
- *WA severe thunderstorms* — Severe thunderstorms occurred on 22 March 2010 in the south-west regions of WA. Heavy rain, severe winds, and hail, large enough to badly damage cars, break car windscreens and windows of houses, caused considerable damage. The Insurance Council of Australia estimated the 2010 damage at \$1.1 billion.

Measurement differences in the number of 2011 Queensland flood deaths

In total, the *Queensland Floods Commission of Inquiry* (2012) attributed 33 deaths to the 2010-11 Queensland floods. The ABS' (2012) causes of death data recorded fewer Queensland victims of floods in the same period. ABS' statistics have been coded according to the 'International Classification of Diseases' standard. This results in some deaths, which may have occurred during the floods, being attributed to a different 'primary' cause of death. There may also be some deaths which occurred in Queensland, but have been attributed to the state of usual residence of the individual. In addition, the ABS' causes of death data are subject to a revisions process. Further deaths may be attributed to flooding on the finalisation of all related coronial inquests.

Source: CSIRO (2012); AGD (2013a); Queensland Government (unpublished).

Deaths from emergency events

'Deaths from emergency events' is an indicator of governments' objective to reduce the adverse effects of emergencies and disasters on the community (including people, property, infrastructure, economy and environment) and to enhance public safety (box D.6).

Box D.6 Deaths from emergency events

'Deaths from emergency events' is defined as the number of deaths per calendar year in three categories:

- road traffic deaths — deaths primarily caused by accidents involving road transport vehicles (mainly cars)
- fire deaths — deaths primarily caused by exposure to smoke, fire or flames
- deaths from exposure to forces of nature — including exposure to excessive natural heat, exposure to excessive natural cold, exposure to sunlight, victim of lightning, victim of earthquake, victim of volcanic eruption, victim of avalanche, landslide and other earth movements, victim of cataclysmic storm, and victim of flood.

A low or decreasing number of deaths from emergency events is desirable.

Data for these measures are:

- comparable (subject to caveats) across jurisdictions and over time
- complete (subject to caveats) for the current reporting period. All required 2012-13 data are available for all jurisdictions.

Data quality information for this indicator is under development.

Nationally, there were 1454 deaths, 65.1 per million people, from emergency events in 2011 (table DA.10). Across jurisdictions, emergency event deaths ranged from 48.8 deaths per million people in NSW to 246.4 deaths per million people in the NT.

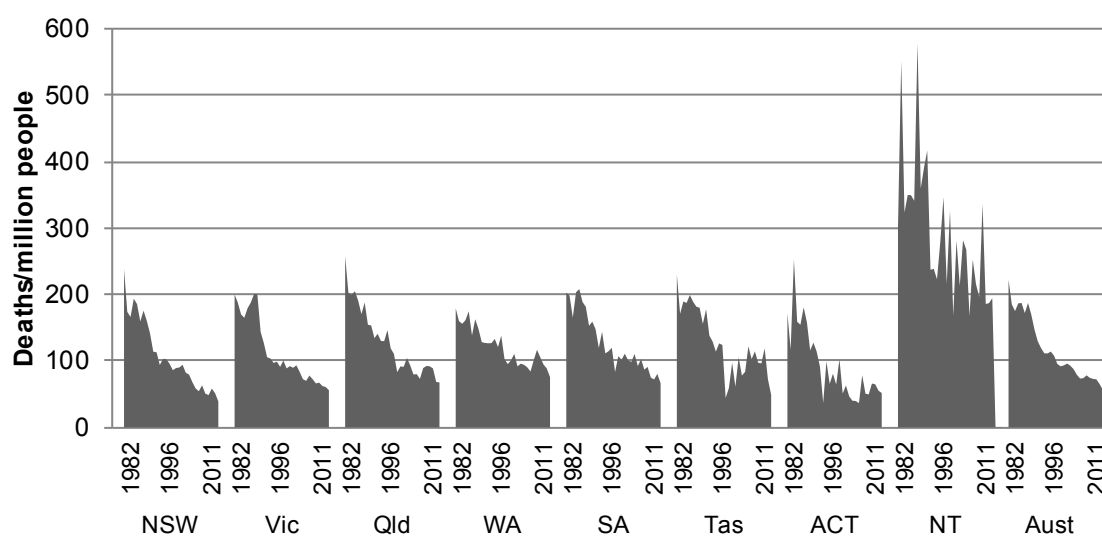
Road traffic deaths

Road crash incidents are the single largest contributor to deaths from emergency events reported (by a substantial factor). Nationally, there were 1257 road traffic deaths in 2011 (table DA.8).

A primary aim of governments is to reduce death and injury and the personal suffering and economic costs of road crashes (box D.7). Nationally, over 20 emergency service organisations contribute to this through the provision of effective and efficient medical and road crash rescue services (table DA.1).

From 1982 to 2011, road traffic deaths have declined from 222.3 to 56.3 deaths per million people (figure D.6). Road safety gains have been achieved through a range of community and government efforts including: road infrastructure improvements; safer vehicles; lower speed limits; graduated licensing; and behavioural programs targeting drink driving, seatbelt usage and speeding (ATC 2011).

Figure D.6 Road traffic deaths^{a, b}



^a Deaths are coded according to the ICD and Related Health Problems Revision 10 (ICD-10). Deaths data are reported by the year the death was registered. Road traffic deaths includes ICD codes V01-V99, X82, Y03 and Y32. ^b The number of road traffic deaths provided in *Causes of Death* is different to the number of 'Road fatalities' presented in chapter 6. 'Road fatalities' in chapter 9 provides more recent data sourced by the Australian Road Deaths Database as reported by the police each month to road safety authorities.

Source: ABS (2013) *Causes of Death, Australia*, Cat. no. 3303.0; table DA.8.

This sector overview provides data on the number of road traffic deaths only. However, the impact of over 40 000 traffic injuries and traumas in 2012-13 is both ongoing and costly (box D.7 and chapter 6). The role of police services in maximising road safety is provided in Police services (chapter 6). The number of road crash rescue incidents attended to by emergency service organisations is presented in Fire and ambulance services (chapter 9).

Box D.7 Road safety in Australia

The cost of road crashes

An evaluation report from the Bureau of Infrastructure, Transport and Regional Economics estimated the cost of road crashes in 2006 at \$17.9 billion (1.7 per cent of GDP). This was a real decrease of 7.5 per cent compared to 1996 (2006 dollars). Estimated human losses were approximately \$2.4 million per fatality, losses for a hospitalised injury were approximately \$214 000 per injury (including disability-related costs), and losses for non-hospitalised injury were approximately \$2200 per injury.

The research found that the estimated real cost of road crashes has declined in the ten years from 1996 to 2006. Road crash fatalities peaked in 1970 and many factors have contributed to reductions in the number of fatalities since then. These include investments in road infrastructure and road safety programs, regulated changes in vehicle safety standards (for example, mandatory seat belts), and better vehicle design and safety equipment such as airbags.

National Road Safety Strategy 2011–2020

On 20 May 2011, the Standing Council on Transport and Infrastructure released an updated *National Road Safety Strategy 2011–20*. This strategy aims to elevate Australia's road safety ambitions through the coming decade and beyond. It is based on Safe System principles and is framed by the guiding vision that no person should be killed or seriously injured on Australia's roads.

The framework includes 10-year targets for governments to reduce the annual number of road crash fatalities and reduce the annual number of serious road crash injuries by at least 30 per cent each.

Achieving this aim requires a range of activities, including design and maintenance of vehicles and roads, driver training, road user education, enforcement of road rules, emergency response and health care in the event of an incident.

Source: BITRE (2009); ATC (2011).

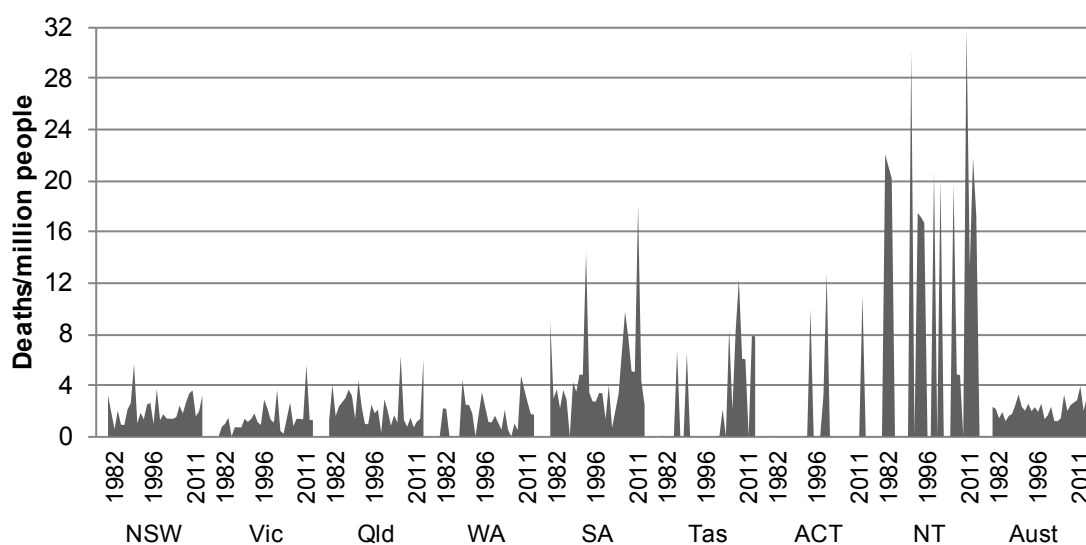
Deaths from exposure to forces of nature

Relatively few deaths (68 deaths in 2011 nationally) are primarily caused by exposure to forces of nature (table DA.9 and figure D.7). Of these deaths:

- 26 people were victims of floods — extreme weather events (and in particular the Queensland floods of 2010-11) help explain the increase in the victims of flood in 2011 compared with previous years (box D.5)
- 26 people died from exposure to excessive natural cold
- 11 people died from exposure to excessive natural heat (ABS 2013).

Research indicates that extremely cold weather conditions and intense and long heatwaves can exceed the capacity of some sections of the community to cope. For example, in 2008 and 2009 heatwaves led to total SA Ambulance Service daily call-outs to increase by 10 per cent and 16 per cent, respectively, when compared to previous heatwaves (Nitschke et al. 2011).

Figure D.7 Deaths from exposure to forces of nature^{a, b}



^a Deaths are coded according to the ICD and Related Health Problems Revision 10 (ICD-10). Deaths data are reported by the year the death was registered. Exposure to forces of nature includes ICD codes X30-X39.
^b The small number of fire and exposure to forces of nature deaths means it is difficult to establish patterns and provide detailed analysis.

Source: ABS (2013) *Causes of Death, Australia*, Cat. no. 3303.0; table DA.9.

Fire deaths

The number of fire deaths can vary from year to year, often impacted by large bushfires. In 2011 there were 129 fire deaths nationally (details in chapter 9).

Service-specific performance indicator frameworks

This section summarises information from the ‘fire events’ and ‘ambulance events’ service-specific indicator frameworks in chapter 9. At present it is not possible to report on government services for ‘all-hazards’ (box D.8).

Box D.8 Reporting on all-hazards

While the sector covers a broader array of events, the potential to expand the chapter to cover all hazards is limited. Many hazards are sporadic in nature (for example floods, cyclones and acts of terrorism) and do not lend themselves to annual, comparative reporting. Resource constraints and data availability also restrict reporting.

Jurisdictions have held inquiries to review and compare government performance following significant emergency events. Recent reports include inquiries from Tasmania, WA and Victoria into bushfires and Queensland into floods (Tasmanian Bushfires Inquiry 2013, Victorian Bushfires Royal Commission 2009, Perth Hills Bushfire February 2011 Review (Keelty 2011), Queensland Floods Commission of Inquiry 2011). Knowledge management (databases, research and evaluation) has been recognised as a key theme identified in these reports

Source: Monash Injury Research Institute (2012).

Additional information is available to assist the interpretation of these results:

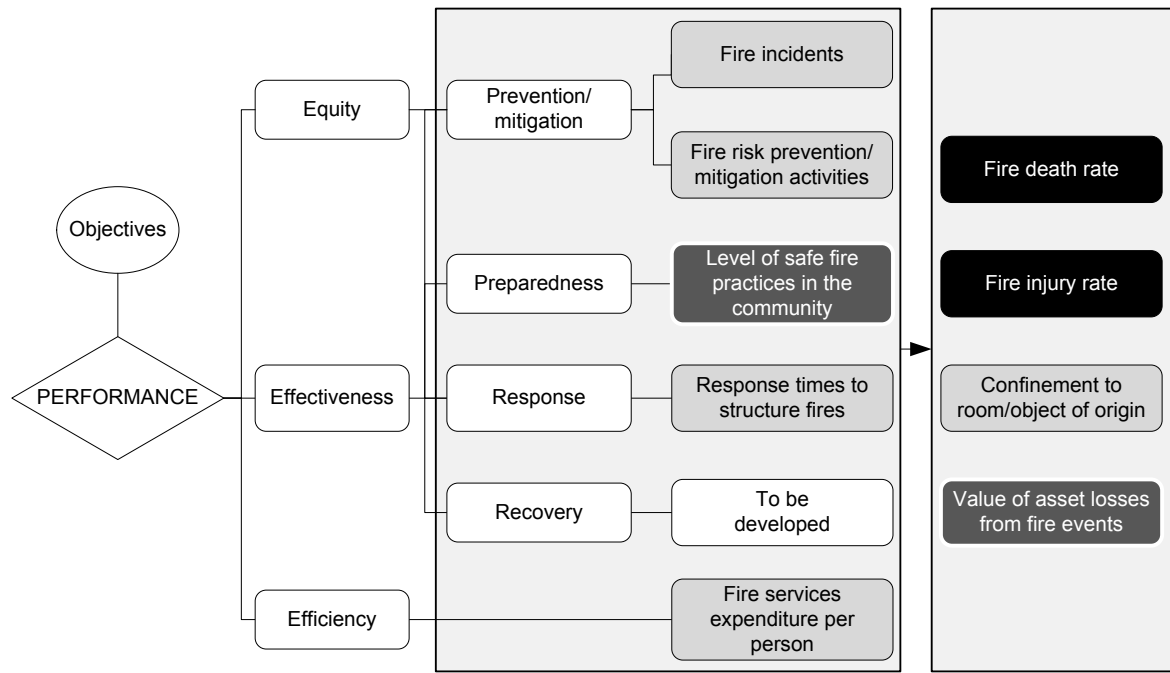
- indicator interpretation boxes, which define the measures used and indicate any significant conceptual or methodological issues with the reported information (chapter 9)
- caveats and footnotes to the reported data (chapter 9 and attachment 9A)
- additional measures and further disaggregation of reported measures (for example, by remoteness) (chapter 9 and attachment 9A)
- data quality information for many indicators, based on the ABS Data Quality Framework (chapter 9 data quality information).

A full list of attachment tables and available data quality information is provided at the end of chapter 9.

Fire events

The performance indicator framework for fire events is presented in figure D.8. This framework provides comprehensive information on the equity, effectiveness, efficiency and the outcomes of fire events.

Figure D.8 Fire events performance indicator framework



Key to indicators*

Text	Most recent data for all measures are comparable and complete
Text	Most recent data for at least one measure are comparable and complete
Text	Most recent data for all measures are not comparable and/or not complete
Text	No data reported and/or no measures yet developed

* A description of the comparability and completeness of each measure is provided in indicator interpretation boxes within the chapter

An overview of the fire events indicator results for 2012-13 (or latest period available) is presented in table D.2. Information to assist the interpretation of these data can be found in the indicator interpretation boxes in chapter 9 and the footnotes in attachment 9A.

Table D.2 Performance indicators for fire events^{a, b}

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Equity and effectiveness — prevention/mitigation indicators										
<i>Number of fire incidents, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
Fire incidents attended by fire service organisations per 100 000 people										
no.	551	434	472	468	354	804	265	1 202	490	9A.15
<i>Estimated percentage of households with a smoke alarm/detector, 2012-13</i>										
Most recent data for this measure are incomplete and are not comparable (chapter 9)										
%	92.8	97.2	95.5	91.0	na	na	na	na	na	9A.25
Equity and effectiveness — preparedness										
<i>Level of safe fire practices in the community, October 2007</i>										
Most recent data for this measure are incomplete and are not comparable (chapter 9)										
Presence of selected safety precautions — Written or rehearsed emergency plan										
%	13.3	15.1	19.7	na	na	na	14.7	na	na	9A.24
Equity and effectiveness — response										
<i>State-wide response times to structure fires, 2012-13</i>										
Most recent data for this measure are incomplete and are not comparable (chapter 9)										
Including call processing time, 90th percentile										
min.	15.0	10.6	11.9	15.6	na	18.4	10.5	18.4	na	9A.27
Excluding call processing time, 90th percentile										
min.	14.0	9.2	11.3	14.2	14.6	16.8	8.9	13.5	na	9A.28
Efficiency indicators										
<i>Fire service organisations' expenditure per person, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
\$	140.18	218.26	108.29	186.43	126.37	168.06	197.41	198.41	159.27	9A.30
Outcome indicators										
<i>Fire death rate, per million people, 2011</i>										
Most recent data for this measure are comparable and complete (chapter 9)										
no.	6.5	5.1	6.5	5.1	6.1	9.8	13.6	34.6	5.8	9A.6
<i>Fire injury rate: Rate of hospital admissions due to fire injury, per 100 000 people, 2011-12</i>										
Most recent data for this measure are comparable and complete (chapter 9)										
no.	15.2	14.0	21.1	20.1	23.0	16.0	8.6	84.8	17.8	9A.9
<i>Confinement to room/object of origin, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
Confinement of building fires to room of origin, all ignition types										
%	66.5	75.3	71.3	64.3	64.8	63.6	65.8	85.5	na	9A.10
Confinement of building and other structure fires to room/object of origin, all ignition types										
%	79.6	82.9	84.4	76.2	71.0	71.8	81.4	85.5	na	9A.11
<i>Value of property losses from fire events — Household insurance claims per person, 2012-13</i>										
Most recent data for this measure are comparable and complete (chapter 9)										
\$	19.08	21.08	14.01	12.32	15.62	136.57	8.77	21.52	20.05	9A.13

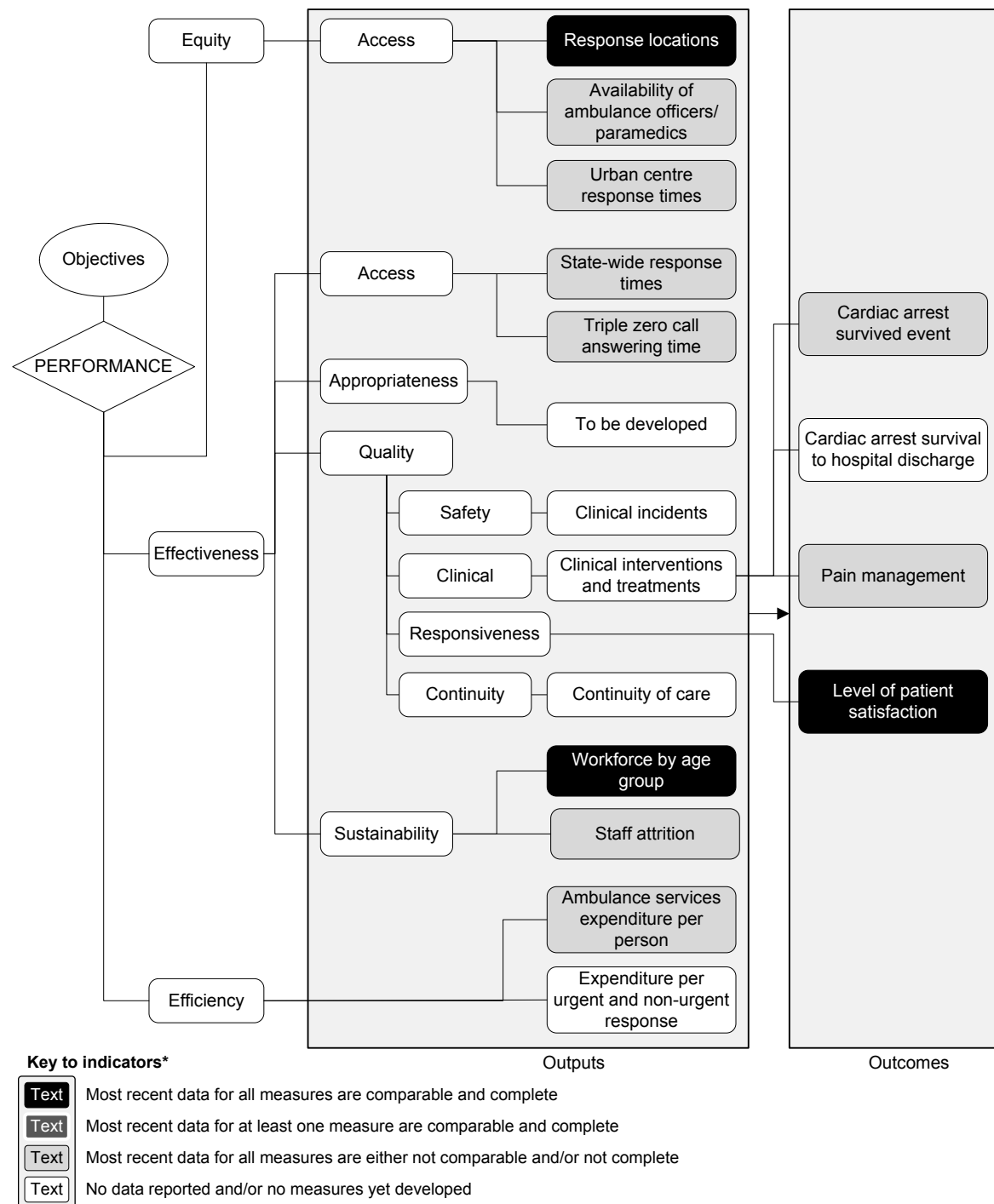
^a Caveats for these data are available in chapter 9 and attachment 9A. Refer to the indicator interpretation boxes in chapter 9 for information to assist with the interpretation of data presented in this table. ^b Some data are derived from detailed data in chapter 9 and attachment 9A. **na** Not available.

Source: Chapter 9 and attachment 9A.

Ambulance events

The performance indicator framework for ambulance events is presented in figure D.9. This framework provides comprehensive information on the equity, effectiveness, efficiency and the outcomes of ambulance events.

Figure D.9 **Ambulance events performance indicator framework**



* A description of the comparability and completeness of each measure is provided in indicator interpretation boxes within the chapter

An overview of the ambulance events indicator results for 2012-13 (or latest period available) is presented in table D.3. Information to assist the interpretation of these data can be found in the indicator interpretation boxes in chapter 9 and the footnotes in attachment 9A.

Table D.3 **Performance indicators for ambulance events^{a, b}**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>	<i>Source</i>
Equity — Access indicators										
<i>Response locations, 2012-13 — Paid, mixed and volunteer locations per 100 000 people</i>										
Most recent data for this measure are comparable and complete (chapter 9)										
no.	3.6	4.5	5.8	7.6	6.8	9.6	1.8	3.8	5.1	9A.38
<i>Availability of ambulance officers/paramedics, 2012-13 — Number of full time equivalent ambulance officers/paramedics per 100 000 people</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
no.	42.4	49.3	59.4	28.3	46.7	46.3	41.3	43.1	46.4	9A.36
<i>Capital city centre response times, 90th percentile, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
min.	20.6	19.5	14.9	14.2	15.4	16.1	13.7	14.6	na	9A.44
Effectiveness — Access indicators										
<i>State-wide response times, 90th percentile, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
min.	23.0	22.9	16.5	16.5	17.4	22.8	13.7	21.6	na	9A.44
<i>Triple zero call answering time, 2012-13 — Proportion of calls from the emergency call service answered by ambulance service communication centre staff in a time equal to or less than 10 seconds</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	90.9	91.4	90.6	94.4	91.3	94.2	88.7	10.4	89.9	9A.45
Effectiveness — Sustainability indicators										
<i>Workforce by age group — Operational workforce under 50 years of age, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	78.3	76.4	80.2	86.4	78.1	78.2	84.7	88.4	79.1	9A.37
<i>Staff attrition, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	5.5	4.3	3.8	4.8	1.4	2.3	2.6	5.0	4.3	9A.37
Efficiency indicators										
<i>Ambulance service expenditure per person, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
\$	103.21	110.33	123.22	81.06	126.19	118.84	118.70	109.47	108.94	9A.47

(Continued next page)

Table D.3 Continued

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Outcome indicators										
<i>Cardiac arrest survived event, 2012-13 — Adult cardiac arrest survived event rate — where resuscitation attempted (excluding paramedic witnessed)</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	na	30.1	24.5	27.0	24.4	30.7	21.7	28.3	na	9A.41
<i>Pain management, 2012-13</i>										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	72.9	91.3	89.2	80.4	na	84.3	na	na	84.2	9A.42
<i>Level of patient satisfaction — overall satisfaction rate, 2013</i>										
Most recent data for this measure are comparable and complete (chapter 9)										
%	99	98	96	99	99	98	98	95	98	9A.43
	± 1.0	± 1.3	± 2.0	± 1.2	± 1.0	± 1.0	± 1.2	± 2.9	± 0.5	

^a Caveats for these data are available in chapter 9 and attachment 9A. Refer to the indicator interpretation boxes in chapter 9 for information to assist with the interpretation of data presented in this table. ^b Some data are derived from detailed data in chapter 9 and attachment 9A. **na** Not available.

Source: Chapter 9 and attachment 9A.

D.3 Cross-cutting and interface issues

The effective development of a ‘resilient community’ — one that works together to understand and manage the risks that it confronts (COAG 2011) — requires the support and input of a range of community stakeholders, including from other government services:

- *Police services* have a critical role in effective emergency management within each jurisdiction. They generally assume critical roles in a jurisdiction’s disaster management plans and coordination authorities (Victorian Bushfires Commission 2010; Queensland Floods Commission of Inquiry 2011). For example, the Queensland Police Service is responsible for coordinating the response phase of disaster management.

Police services (and the justice system) have a critical role in implementing the prevention strategies of a jurisdiction — such as enforcing road laws.

- *Health services*, in particular emergency departments of public hospitals, have an important role in the preparation and response to emergency events.

Similarly, ambulance services are an integral part of a jurisdiction’s health service providing emergency as well as non-emergency patient care and transport.

- In large scale emergencies, a range of agencies may be called upon to provide assistance. For example, through Australian Government arrangements for the

provision of assistance to States/Territories, the Australian Defence Force has been called upon to assist emergency services organisations in responding to emergencies such as the 2011 Queensland floods (Queensland Floods Commission of Inquiry 2011).

Emergency services, police and public hospitals are also key services involved in preventing and dealing with acts of terrorism as set out in Australia's National Counter Terrorism Plan (NCTC 2012). While performance data in RoGS do not explicitly include the details of these government activities, such activities need to be kept in mind when interpreting performance results.

Emergency management policies need to consider how government services cut across populations and communities with special needs. The Standing Council on Police and Emergency Management's terms of reference emphasise that cross-cutting issues such as Indigenous disadvantage, access to services, gender equality, and inclusion for people with disability, as well as the specific needs of regional Australia should be taken into account in pursuing its priority issues of national significance (COAG 2012).

The development of the National Emergency Management Strategy for Remote Indigenous Communities was initiated by the Australian Emergency Management Committee in 2004 (RICAC 2007). The finalised strategy has been endorsed by the Augmented Australasian Police Ministers' Council (now the Standing Council on Police and Emergency Management). The strategy aims to improve the disaster resilience of remote Indigenous communities.

D.4 Future directions in performance reporting

This emergency management sector overview will continue to be developed in future reports. It is anticipated that work undertaken to achieve the COAG aspirations will lead to improvements in performance reporting for the emergency management sector. There are several important national initiatives currently underway. These include:

- development of risk registers that assess the likelihood and potential impacts of particular emergency events
- development of the disasters database to provide more information on the costs of disasters beyond insured asset losses
- development of an expanded action plan to enhance disaster resilience in the built environment, including consideration of land use planning, building codes and property resilience ratings.

The Fire and ambulance services chapter contains a service-specific section on future directions in performance reporting.

D.5 List of attachment tables

Attachment tables are identified in references throughout this sector overview by a 'DA' prefix (for example, table DA.1). A full list of attachment tables is provided at the end of this sector overview, and the attachment tables are available from the Review website at www.pc.gov.au/gsp.

Emergency management

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State/Territory Emergency Services

Table DA.11	All activities of State Emergency Services and Territory Emergency Services
Table DA.12	Major sources of State/Territory emergency service organisations revenue (2012-13 dollars)
Table DA.13	State/Territory emergency service organisations' costs (2012-13 dollars)
Table DA.14	State/Territory emergency service organisations human resources

D.6 References

ABS (Australian Bureau of Statistics) 2013, *Causes of Death Australia, 2011*, Cat. no. 3303.0, Canberra.

AGD (Attorney General's Department) 2012, *Australian Emergency Terms Thesaurus*, Australian Emergency Manuals Series, www.em.gov.au (accessed 1 October 2012), Australian Government, Canberra.

-
- 2013a, *Australian Emergency Management Knowledge Hub*, www.emknowledge.gov.au/disaster-information (accessed 10 October 2013).
- 2013b, *Standing Council on Police and Emergency Management*, www.em.gov.au (accessed 4 October 2013), Canberra.
- Australian Government 2010, *Australia to 2050: future challenges — 2010 Intergenerational Report*, Canberra.
- ATC (Australian Transport Council) 2011, *National Road Safety Strategy 2011–2020*, Australian Government, Canberra.
- Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2009, *Road Crash Costs in Australia 2006*, Canberra.
- COAG (Council of Australian Governments) 2009, *National Disaster Resilience Statement*, Excerpt from Communiqué, Council of Australian Governments, Brisbane, 7 December.
- 2011, *National Strategy for Disaster Resilience*, Australian Government, Council of Australian Governments, Canberra.
- 2012, *Standing Council on Police and Emergency Management: Terms of Reference*, www.ag.gov.au/Committeesandcouncils/Ministerialcouncils/Pages/StandingCouncilonPoliceandEmergencyManagement.aspx (cited 1 Nov 2012)
- CSIRO (Commonwealth Scientific and Industrial Research Organisation) 2012, *Extreme weather events — what can we expect*, www.csiro.au/Outcomes/Climate/adapt-extreme-weather.aspx (accessed 1 October 2012).
- Dawson M. and Morris S., 2008, ‘Modelling community vulnerability to fires using socio-economic indexes’, *Modelling, Monitoring and Management of Forest Fires*, ed. J. de la Heras, C.A. Brebbia, D. Viegas and V. Leone, WIT Press, pp. 277–285.
- FESA (Fire and Emergency Services Authority of Western Australia) 2010, *Fatal Fires in Western Australia 2001–2006*, www.fesa.wa.gov.au/publications/GeneralReports/FESA_Report-FatalFiresinWA2001–2006.pdf (accessed 31 August 2011).
- Ganewatta, G. and Handmer, J. 2007, *The Value of Volunteers in State Emergency Services*, prepared for ACSES and AFAC.
- ICA (Insurance Council of Australia) 2013, *Historical & current disaster statistics*, www.insurancecouncil.com.au/statistics (accessed 10 October 2013).
- Keelty M.J. 2011, *A Shared Responsibility: The Report of the Perth Hills Bushfire February 2011 Review*, Government of Western Australia, Perth.
- Monash Injury Research Institute 2012, *Review of recent Australian disaster inquiries*, by Goode N., Spencer C., Archer F., McArdle D., Salmon P. and

-
- McClure R. funded by Attorney-General's Department, Monash University, Melbourne.
- NCTC (National Counter-Terrorism Committee) 2012, *National counter-terrorism plan*, 3rd edition 2012, Australian Government, Canberra.
- Nitschke M., Tucker G., Hansen A., Williams S., Zhang Y. and Bi P. 2011, 'Impact of two recent extreme heat episodes on morbidity and mortality in Adelaide, South Australia: a case-series analysis', *Environmental Health*, 10:42.
- Queensland Floods Commission of Inquiry 2012, *Queensland Floods Commission of Inquiry: Final Report*, by Commissioner Holmes C.E., Queensland Floods Commission of Inquiry, Brisbane.
- RICAC (Remote Indigenous Communities Advisory Committee) 2007, *Keeping our mob safe: National emergency management strategy for remote Indigenous communities*, Commonwealth of Australia, Canberra.
- Tasmanian Bushfires Inquiry 2013, *2013 Tasmanian Bushfire Inquiry Report*, by Malcolm Hyde, Tasmanian Government, Hobart.
- Victorian Bushfires Royal Commission 2010, *2009 Victorian Bushfires Royal Commission: Final Report*, by Commissioner Teague B., McLeod R., and Pascoe S., Parliament of Victoria, Melbourne.

DA Emergency management sector overview — attachment

Un sourced information was obtained from the Australian, State and Territory governments, with the assistance of the Australasian Fire and Emergency Service Authorities Council and the Council of Ambulance Authorities.

Data in this Report are examined by the Emergency Management Working Group, but have not been formally audited by the Secretariat.

Data reported in the attachment tables are the most accurate available at the time of data collection. Historical data may have been updated since the last edition of RoGS.

This file is available on the Review web page (www.pc.gov.au/gsp).

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State Emergency Services

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All jurisdictions — Emergency management

TABLE DA.1

Table DA.1 Summary of emergency management organisations by event type (a), (b)

NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aus Gov (c)
Fires								
Fire and Rescue NSW	Metropolitan Fire Brigade	Qld Fire and Rescue Service	Department of Fire and Emergency Services	Country Fire Service	Tasmania Fire Service	ACT Emergency Services Agency	NT Fire and Rescue Service	Airservices Australia (Rescue and Fire Fighting Service)
NSW Rural Fire Service	Country Fire Authority	Qld Police Service		Metropolitan Fire Service	Forestry Tasmania	ACT Fire and Rescue	Bushfires NT	Department of Defence
NSW Police Force	Department of Environment and Primary Industries	Department of Natural Resources and Mines	Department of Parks and Wildlife		Parks and Wildlife			
Ambulance Service of NSW		Department of National Parks, Recreation, Sport and Racing	Forest Products Commission			ACT Rural Fire Service	Aviation Rescue and Fire Fighting Authority	Attorney-General's Department
Office of Environment and Heritage	Parks Victoria	Department of Agriculture, Fisheries and Forestry	Department for Child Protection and Family Support			Canberra Urban Parks and Places		Bureau of Meteorology
	Airport Rescue and Firefighting Service	Local government	WA Police Service			Territory and Municipal Services Directorate	Parks and Wildlife	Australian Building Codes Board
		Qld Ambulance Service						
		Emergency Management Queensland	Local governments					Department of Infrastructure and Regional Development
	Gas distribution companies	Queensland Helicopter Rescue						
Medical transport and emergencies								
Ambulance Service of NSW	Ambulance Victoria	Qld Ambulance Service	St John Ambulance	SA Ambulance Service	Ambulance Tasmania	ACT Emergency Services Agency	St John Ambulance	Department of Health — National Incident Room
NSW Health	Metropolitan Fire Brigade	Emergency Management Queensland Helicopter Rescue	Department of Fire and Emergency Services			ACT Ambulance Service	Royal Flying Doctor Service	Attorney-General's Department (Australian Medical Transport Coordination Group)
Helicopter Rescue Services (under ambulance control)		Department of Health	Royal Flying Doctor Service				Territory Health Service	
		Royal Flying Doctor Service	Department of Fire and Emergency Services/St John Ambulance - Rescue Helicopter Service					
		Community Helicopters						

TABLE DA.1

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus Gov (c)</i>
Road crash rescues								
Fire and Rescue NSW	Metropolitan Fire Brigade	Qld Fire and Rescue Service	WA Police Service	State Emergency Service	Tasmania Fire Service	ACT Fire and Rescue	NT Fire and Rescue Service	
NSW Police Force		Qld SES	Department of Fire and Emergency Services	Metropolitan Fire Service	State Emergency Service		NT Emergency Services	
Ambulance Service of NSW	Country Fire Authority	Qld Ambulance Service						
NSW SES	Victoria SES	Qld Police Service	St John Ambulance	Country Fire Service				
Volunteer Rescue Association								
Rescues (other)								
Fire and Rescue NSW	Metropolitan Fire Brigade	Qld Fire and Rescue Service	WA Police Service	State Emergency Service	Tasmania Police	ACT Emergency Services Agency	NT Fire and Rescue Service	Australian Maritime Safety Authority
NSW Police Force	Country Fire Authority	Qld SES	Department of Fire and Emergency Services	Metropolitan Fire Service	State Emergency Service	ACT Fire and Rescue	NT Emergency Services	Department of Defence
Ambulance Service of NSW	Victoria SES	Qld Ambulance Service		Country Fire Service	Tasmania Fire Service	Australian Federal Police	NT Police	Australian Customs and Border Protection Service
NSW SES	Victoria Police	Qld Police Service	St John Ambulance	SA Police		ACT State Emergency Service		
Volunteer Rescue Association	Ambulance Victoria	Emergency Management Queensland Helicopter Rescue	Department of Fire and Emergency Services/St John Ambulance - Rescue Helicopter Service	SA Ambulance Service	Ambulance Tasmania			
Mines Rescue Service	Municipal councils			State Rescue Helicopter Service				
Marine Rescue NSW	Building Control Commissioner							

TABLE DA.1

Table DA.1 Summary of emergency management organisations by event type (a), (b)

NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aus Gov (c)
Natural events								
State Emergency Service	Victoria State Emergency Service	Local government Qld Police Service	Department of Fire and Emergency Services	Functional Services and Hazard Leader's as per State Emergency Management Plan	State Emergency Service	ACT State Emergency Service	NT Emergency Service	Attorney-General's Department
NSW Police Force	Victoria Police	Department of Community Safety (Emergency Management Queensland)	WA Police Service Department for Child Protection and Family Support		Department of Police and Public Safety	Australian Federal Police	NT Police NT Fire and Rescue Service	Department of Infrastructure and Regional Development
Ambulance Service of NSW	Country Fire Authority	Qld SES	Department of Mineral and Petroleum Resources		Tasmania Fire Service	ACT Fire and Rescue	Parks and Wildlife	Geoscience Australia
Volunteer Rescue Association	Municipal councils	Qld Fire and Rescue Service	Department of Agriculture		Ambulance Tasmania Local government authorities	ACT Emergency Service	Local Councils	Bureau of Meteorology
Department of Finance and Services		Qld Ambulance Service Department of Premier and Cabinet	Department of Health Department of Water Water Corporation		Department of Health and Human Services	Territory and Municipal Services		Department of Defence Australian Building Codes Board
Department of Primary Industry		Department of Natural Resources and Mines	Department for Planning and Infrastructure			ACT Ambulance Service		All Australian Government Agencies under the Australian Government Crisis Management Framework
NSW Environment Protection Authority		Department of Communities, Child Safety and Disability Services Queensland Health	Local governments Bureau of Meteorology		Department of Primary Industries, Water and Environment	ACT Rural Fire Service		
Transport for NSW		Queensland Health						
Department of Premier and Cabinet		Department of Transport and Main Roads	Bureau of Meteorology Main Roads WA		Tasmania Police Department of Premier and Cabinet			
NSW Treasury								

TABLE DA.1

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus Gov (c)</i>
Natural events (continued)								
Department of Family and Community Services		Department of Agriculture, Fisheries and Forestry	Department of Parks and Wildlife					
Mines Rescue Service		Department of Environment and Heritage Protection	Port Authorities					
NSW Health Local government authorities		Department of State Development, Infrastructure and Planning						
NSW Rural Fire Service		Department of Housing and Public Works						
Ministry for Police and Emergency Services		Department of Energy and Water Supply						
Technological and hazardous material incidents								
Fire and Rescue NSW	Metropolitan Fire Brigade	Qld Fire and Rescue Service	Department of Fire and Emergency Services	Functional Services and Hazard Leader's as per State Emergency Management Plan	Department of Primary Industries, Water and Environment	ACT Fire and Rescue	NT Fire and Rescue Service	Australian Maritime Safety Authority
NSW Rural Fire Service	Country Fire Authority	Department of Justice and Attorney-General, Hazardous Industries and Chemicals Branch	WA Police Service		Tasmania SES	Australian Federal Police	NT Police Department of Health	Department of Infrastructure and Regional Development
NSW Environment Protection Authority	Victoria Police		Department of Health			Environment Protection Authority		
NSW Police Force	Ambulance Victoria	Department of Transport and Main Roads	Department for Planning and Infrastructure	SA Ambulance Service	Department of Police and Public Safety	Health Directorate	St John Ambulance	Attorney-General's Department
NSW Health	Department of Human Services	Department of Health					MBT	Airservices Australia
Ambulance Service of NSW		Qld Ambulance Service Qld Police Service	Department of Mineral and Petroleum Resources		Tasmania Fire Service		Northern Territory Emergency Service	Civil Aviation Safety Authority

TABLE DA.1

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus Gov (c)</i>
Technological and hazardous material incidents (continued)								
National Oil Spill Committee	Vic Workcover Authority	Department of Environment and Heritage Protection	Department of Environment Regulation		Ambulance Tasmania		WorkSafe NT	Australian Transport Safety Bureau
Port Corporations Oil Companies Department of Environment and Climate Change NSW	Environmental Protection Authority Marine Board (Vic Channels, Local Ports Operators) Department of Environment and Primary Industries Parks Victoria	Department of Agriculture, Fisheries and Forestry	St John Ambulance Water Corporation Alinta Gas Port Authorities Industry Emergency Response Groups		Department of Health and Human Services Local government authorities Department of Infrastructure, Energy and Resources Tasmania Police			Department of Defence Department of Health Australian Radiation Protection and Nuclear Safety Agency Australian Customs and Border Protection Service Department of Agriculture
Quarantine and disease control								
NSW Health Department of Primary Industry Water Authorities NSW Police Force NSW Environment Protection Authority	Department of Environment and Primary Industries (Water Agencies and Agriculture) Municipal councils	Department of Health Department of Community Safety - Emergency Management Queensland (Queensland Fire and Rescue plays a support role)	Department of Health Department of Agriculture Water Corporation Department of Fire and Emergency Services	Functional Services and Hazard Leader's as per State Emergency Management Plan	Department of Primary Industries, Water and Environment (Quarantine) Department of Health and Human Services	Health Directorate Environment ACT ACT Electricity and Water	NT Emergency Service Territory Health Service NT Police Transport and Works Department	Department of Health Biosecurity Australia Australian Customs and Border Protection Service

TABLE DA.1

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus Gov (c)</i>
Quarantine and disease control (continued)								
Fire and Rescue NSW	Department of Human Services (Public Health)	Department of National Parks, Recreation, Sport and Racing Department of Transport and Main Roads Local government Department of Energy and Water Supply Department of Environment and Heritage Protection Qld Police Service					Department Primary Industry and Fisheries	Attorney-General's Department Department of Agriculture Department of Foreign Affairs and Trade
Emergency relief and recovery								
State Emergency Management Committee	Municipal councils	Local government Queensland Reconstruction Authority	Department for Child Protection and Family Support Utility agencies Department of Health Department of the Premier and Cabinet	Functional Services and Hazard Leader's as per State Emergency Management Plan	Department of Health and Human Services (Community and Rural Health) Department of Infrastructure Energy and Resources	ACT Emergency Services Agency Community Services Directorate Territory and Municipal Services Directorate	Northern Territory Emergency Service Department of Health Government departments	Department of Social Services Centrelink Department of Infrastructure and Regional Development Attorney-General's Department
NSW Police Force	Department of Human Services (Public Health)	Department of Communities, Child Safety and Disability Services						
Department of Finance and Services	Church/ charitable organisations							
Department of Family and Community Services	Victoria SES	Department of Housing and Public Works	Local governments					
Department of Premier and Cabinet	Victoria Police		Insurance Council of Australia		Local government	ACT State Emergency Service		
	Department of Environment and Primary Industries (Agriculture)	Department of State Development, Infrastructure and Planning			Tasmania SES			
NSW Treasury			Department of Treasury					
NSW Health					Tasmania Police			

TABLE DA.1

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus Gov (c)</i>
Emergency relief and recovery (continued)								
Department of Primary Industry	Vic Roads	Department of Transport and Main Roads	Department Agriculture and Food					Department of Premier and Cabinet
Ministry for Police and Emergency Services	Utility companies	Department of Energy and Water Supply	Department of Water					Department of Primary Industries, Parks, Water and Environment
Department of Transport		Department of Agriculture, Fisheries and Forestry	Department Mineral and Petroleum Resources					
Department of Education and Communities		Department of Environment and Heritage Protection	Department for Planning and Infrastructure					Department of Economic Development
Community Relations Commission		Department of Community Safety - Emergency Management Queensland						
Ministry for Police and Emergency Services		Qld SES						
Local government authorities		Department of Health Queensland Police Service						
		Utility agencies						

- (a) The scope of this table is primary response agency or agencies (that is government agencies with legislative responsibility). Non government agencies that provide support, but do not have a direct legislative responsibility, are not included.
- (b) Organisations are ordered by level of involvement in each event type, except for the column under the heading of Australian Government. That is, the first mentioned organisation for each jurisdiction under each event type is the most involved combating organisation, the second mentioned is the second main combating organisation, through to the last mentioned, which is the most minor combating organisation listed (and there may be other organisations with a role, more minor again which are not listed).

TABLE DA.1

Table DA.1 Summary of emergency management organisations by event type (a), (b)

<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus Gov (c)</i>
(c) Emergency Management Australia, within the Attorney-General's Department, is the central coordinating Australian Government agency for any hazard, at the request of the jurisdictions. Deployment of interstate SES volunteers is managed by the Australian Council of SES (ACSES).								

Source: Australian, State and Territory governments (unpublished).

TABLE DA.2

Table DA.2 Major sources of emergency service organisations' revenue, 2012-13 (a), (b), (c)

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA (d)</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (d)</i>
Total ambulance, fire and emergency service organisations										
Revenue										
Government grants/contributions	\$m	901.6	1 054.7	559.8	201.1	136.9	73.7	90.2	72.3	3 090.4
Total levies	\$m	691.1	571.7	347.8	250.9	182.7	50.8	–	–	2 095.0
User/Transport charges	\$m	231.5	154.0	158.7	92.8	78.4	16.5	4.9	5.2	742.0
Subscriptions and other income	\$m	55.3	105.9	22.0	44.8	36.8	7.8	4.9	0.5	278.0
Total	\$m	1 879.5	1 886.3	1 088.3	589.6	434.7	148.9	100.1	78.0	6 205.4
Total revenue per person	\$	255.8	332.1	236.0	238.4	261.5	290.6	263.6	329.4	270.9
Ambulance service organisations										
Revenue										
Government grants/contributions	\$m	545.7	488.5	446.3	101.4	133.7	52.8	31.4	22.5	1 822.2
Total levies	\$m	–	–	–	–	–	–	–	–	–
User/Transport charges	\$m	205.2	121.8	109.7	85.6	73.4	6.5	4.9	2.6	609.7
Subscriptions and other income	\$m	19.7	71.3	15.7	39.6	33.9	2.9	0.4	0.5	184.1
Total	\$m	770.6	681.5	571.7	226.6	241.0	62.2	36.7	25.6	2 616.0
Total revenue per person	\$	104.9	120.0	124.0	91.7	145.0	121.4	96.7	108.2	114.2
Fire and emergency service organisations (Fire and SES)										
Revenue										
Government grants/contributions	\$m	355.9	566.2	113.6	99.7	3.2	20.9	58.9	49.8	1 268.2
Total levies	\$m	691.1	571.7	347.8	250.9	182.7	50.8	–	–	2 095.0
User/Transport charges	\$m	26.3	32.3	49.0	7.1	5.0	10.1	–	2.6	132.3
Subscriptions and other income	\$m	35.6	34.6	6.2	5.3	2.9	4.9	4.5	–	94.0

TABLE DA.2

Table DA.2 **Major sources of emergency service organisations' revenue, 2012-13 (a), (b), (c)**

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA (d)</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (d)</i>
Total	\$m	1 108.9	1 204.8	516.6	363.0	193.8	86.7	63.4	52.4	3 589.4
Total revenue per person	\$	150.9	212.1	112.0	146.8	116.6	169.2	167.0	221.2	156.7
State/Territory emergency service (SES) organisations										
Revenue										
Government grants/contributions	\$m	30.2	52.6	12.1	na	–	2.9	2.1	3.5	103.4
Total levies	\$m	60.6	–	na	na	14.9	–	–	–	75.6
User/Transport charges	\$m
Subscriptions and other income	\$m	3.3	4.4	na	na	0.3	0.3	0.1	–	8.4
Total	\$m	94.1	57.0	12.1	na	15.3	3.2	2.2	3.5	187.4
Total revenue per person	\$	12.8	10.0	2.6	na	9.2	6.3	5.7	14.9	8.2
Fire service organisations										
Revenue										
Government grants/contributions	\$m	325.7	513.6	101.4	99.7	3.2	18.0	56.8	46.3	1 164.8
Total levies	\$m	630.5	571.7	347.8	250.9	167.7	50.8	–	–	2 019.4
User/Transport charges	\$m	26.3	32.3	49.0	7.1	5.0	10.1	–	2.6	132.3
Subscriptions and other income	\$m	32.4	30.1	6.2	5.3	2.6	4.6	4.4	–	85.6
Total	\$m	1 014.8	1 147.8	504.5	363.0	178.5	83.4	61.2	48.9	3 402.1
Total revenue per person	\$	138.1	202.1	109.4	146.8	107.4	162.8	161.3	206.3	148.5

(a) Estimated Resident Populations (ERPs) to June 2011 used to derive rates are revised to the ABS' final 2011 Census rebased ERPs. The final ERP replaces the preliminary 2006 Census based ERPs used in the 2013 Report. ERP data from December 2011 are first preliminary estimates based on the 2011 Census. See Chapter 2 (table 2A.1-2) for details.

(b) Other revenue is equal to the sum of subscriptions, donations and miscellaneous revenue.

(c) Other government contributions includes Australian Government grants, Local government grants, and indirect government funding.

TABLE DA.2

Table DA.2 **Major sources of emergency service organisations' revenue, 2012-13 (a), (b), (c)**

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA (d)</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (d)</i>
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(d) Jurisdiction notes:

WA: DFES provides a wide range of emergency services under an integrated management structure. Fire and emergency service data include funding related to the fire service organisation, SES and volunteer marine rescue and cannot be segregated. Revenue also includes funding related to Wildfire Suppression and Western Australia Natural Disaster Relief and Recovery Arrangements. Total levies include a property-based Emergency Services Levy (ESL). The ESL provides for the delivery of all emergency services except for volunteer marine rescue.

Aust: For SES, Australian total excludes WA. For Fire service organisations, Australian total includes WA FSO funding, which includes total funding of services for the SES, Fire and Rescue Services, Bush Fire Services and Volunteer Marine Rescue Services.

na Not available. – Nil or rounded to zero. .. Not applicable.

Source: State and Territory governments; ABS (unpublished), *Australian Demographic Statistics*, Cat. no. 3101.0 [data available on request] (table 2A.2).

TABLE DA.3

Table DA.3 **Emergency service organisations' costs, 2012-13 (a), (b)**

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA (f)</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total (f)</i>
Total ambulance, fire and emergency service organisations										
Labour costs - Salaries and payments in the nature of salaries	\$'000	1 108 126	940 977	680 173	273 192	253 436	86 928	73 604	48 791	3 465 226
Capital costs (c)										
Depreciation	\$'000	70 763	97 023	77 939	25 701	27 416	8 336	8 896	5 155	321 229
User cost of capital - Other	\$'000	57 098	196 923	55 783	24 800	26 072	8 421	5 964	4 564	379 626
Other costs (d)	\$'000	642 699	684 756	265 671	337 720	127 906	46 132	34 429	18 311	2 157 624
Total costs (e)	\$'000	1 878 686	1 919 679	1 079 565	661 413	434 830	149 817	122 893	76 821	6 323 705
Total costs per person	\$	255.64	337.99	234.13	267.48	261.60	292.37	323.78	324.32	276.07
Other expenses										
<i>Labour costs - Payroll tax</i>	\$'000	30 188	25 497	29 198	<i>na</i>	5 309	2 961	–	1 516	94 669
<i>User cost of capital - Land</i>	\$'000	20 517	33 529	<i>na</i>	8 642	5 742	<i>na</i>	1 880	728	71 038
<i>Interest on borrowings</i>	\$'000	–	360	234	3 463	118	251	–	<i>na</i>	4 426
Ambulance service organisations										
Labour costs - Salaries and payments in the nature of salaries	\$'000	506 801	380 165	382 335	114 840	135 820	41 833	26 832	18 538	1 607 164
Capital costs (c)										
Depreciation	\$'000	18 003	25 944	46 040	13 267	7 790	2 835	1 051	1 574	116 504
User cost of capital - Other	\$'000	12 723	17 323	26 185	7 787	4 264	1 914	787	331	71 313
Other costs (d)	\$'000	220 920	203 227	113 597	64 536	61 873	14 317	16 384	5 488	700 342
Total costs (e)	\$'000	758 447	626 659	568 157	200 430	209 747	60 898	45 054	25 931	2 495 323
Total costs per person	\$	103.21	110.33	123.22	81.06	126.19	118.84	118.70	109.47	108.94
Other costs										

TABLE DA.3

Table DA.3 **Emergency service organisations' costs, 2012-13 (a), (b)**

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA (f)</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total (f)</i>
<i>Labour costs - Payroll tax</i>	\$'000	–	–	16 037	–	–	498	–	–	16 535
<i>User cost of capital - Land</i>	\$'000	9 176	4 604	8 824	1 818	1 292	570	578	24	26 885
<i>Interest on borrowings</i>	\$'000	–	–	–	–	118	–	–	–	118
Fire and emergency service organisations (FSO and SES)										
Labour costs - Salaries and payments in the nature of salaries	\$'000	601 325	560 812	297 838	158 352	117 616	45 095	46 772	30 253	1 858 063
Capital costs (c)										
Depreciation	\$'000	52 760	71 079	31 899	12 434	19 626	5 501	7 845	3 581	204 725
User cost of capital - Other	\$'000	44 375	179 601	29 598	17 013	21 809	6 508	5 177	4 233	308 313
Other costs (d)	\$'000	421 779	481 529	152 074	273 184	66 033	31 815	18 045	12 823	1 457 282
Total costs (e)	\$'000	1 120 239	1 293 021	511 408	460 983	225 084	88 919	77 839	50 890	3 828 382
Total costs per person	\$	152.44	227.66	110.91	186.43	135.42	173.53	205.08	214.85	167.13
Other expenses										
<i>Labour costs - Payroll tax</i>	\$'000	30 188	25 497	13 161	na	5 309	2 463	–	1 516	na
<i>User cost of capital - Land</i>	\$'000	11 341	28 926	na	6 823	4 451	na	1 302	704	na
<i>Interest on borrowings</i>	\$'000	–	360	234	3 463	–	251	–	na	na
State/Territory emergency service (SES) organisations										
Labour costs - Salaries and payments in the nature of salaries	\$'000	27 838	17 773	2 099	na	3 081	2 001	1 031	1 725	55 548
Capital costs (c)										
Depreciation	\$'000	4 097	5 524	260	na	2 260	–	504	608	13 253
User cost of capital - Other	\$'000	3 517	4 416	na	na	2 580	na	527	486	11 527
Other costs (d)	\$'000	54 593	25 682	9 749	na	7 114	798	849	1 074	99 859

TABLE DA.3

Table DA.3 **Emergency service organisations' costs, 2012-13 (a), (b)**

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA (f)</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total (f)</i>
Total costs (e)	\$'000	90 045	53 395	12 108	na	15 035	2 799	2 911	3 893	180 187
Total costs per person	\$	12.25	9.40	2.63	na	9.05	5.46	7.67	16.44	7.87
Other expenses										
<i>Labour costs - Payroll tax</i>	\$'000	1 410	727	133	na	133	38	–	93	2 534
<i>User cost of capital - Land</i>	\$'000	–	734	na	na	225	na	192	204	na
<i>Interest on borrowings</i>	\$'000	–	360	–	na	–	–	–	–	360
Fire service organisations (FSO)										
Labour costs - Salaries and payments in the nature of salaries	\$'000	573 487	543 039	295 739	158 352	114 535	43 094	45 741	28 528	1 802 515
Capital costs (c)										
Depreciation	\$'000	48 663	65 555	31 638	12 434	17 366	5 501	7 341	2 973	191 471
User cost of capital - Other	\$'000	40 859	175 184	29 598	17 013	19 229	6 508	4 650	3 747	296 786
Other costs (d)	\$'000	367 186	455 847	142 325	273 184	58 919	31 017	17 196	11 749	1 357 423
Total costs (e)	\$'000	1 030 195	1 239 625	499 300	460 983	210 049	86 120	74 928	46 997	3 648 195
Total costs per person	\$	140.18	218.26	108.29	186.43	126.37	168.06	197.41	198.41	159.27
Other expenses										
<i>Labour costs - Payroll tax</i>	\$'000	28 778	24 770	13 028	na	5 176	2 425	–	1 423	na
<i>User cost of capital - Land</i>	\$'000	11 341	28 192	11 461	6 823	4 226	1 341	1 109	500	64 994
<i>Interest on borrowings</i>	\$'000	–	–	234	3 463	–	251	–	na	na

(a) Estimated Resident Populations (ERPs) to June 2011 used to derive rates are revised to the ABS' final 2011 Census rebased ERPs. The final ERP replaces the preliminary 2006 Census based ERPs used in the 2013 Report. ERP data from December 2011 are first preliminary estimates based on the 2011 Census. See Chapter 2 (table 2A.1-2) for details.

(b) Figures vary from year to year as a result of abnormal expenditure related to response to specific major emergencies.

TABLE DA.3

Table DA.3 **Emergency service organisations' costs, 2012-13 (a), (b)**

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA (f)</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total (f)</i>
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(c) The user cost of capital is partly dependent on depreciation and asset revaluation methods employed. Details of the treatment of assets by emergency management agencies across jurisdictions are outlined in table 9A.51.

(d) Includes the running, training, maintenance, communications, provisions for losses and other recurrent costs.

(e) Total costs excludes payroll tax, the user cost of capital associated with land, and interest on borrowings.

(f) Jurisdiction notes:

WA: DFES provides a wide range of emergency services under an integrated management structure. Fire and emergency service data include funding related to the fire service organisation, SES and volunteer marine rescue and cannot be segregated. Expenses also includes costs related to Wildfire Suppression and Western Australia Natural Disaster Relief and Recovery Arrangements. Data for the Department of Environment and Conservation are not included.

Aust: For SES, Australian total excludes WA. For Fire service organisations, Australian total includes WA FSO expenditure, which includes total costs of services for the SES, Fire and Rescue Services, Bush Fire Services and Volunteer Marine Rescue Services.

na Not available. – Nil or rounded to zero.

Source: State and Territory governments; ABS (unpublished), *Australian Demographic Statistics*, Cat. no. 3101.0 [data available on request] (table 2A.2).

TABLE DA.4

Table DA.4 **Emergency services human resources, 2012-13 (a)**

		<i>NSW</i>	<i>Vic</i>	<i>Qld (b)</i>	<i>WA (b)</i>	<i>SA (b)</i>	<i>Tas</i>	<i>ACT</i>	<i>NT (b)</i>	<i>Aust (b)</i>
Total ambulance, fire and emergency service organisations										
Salaried personnel										
Operational	FTE	7 419	7 951	5 824	1 988	2 011	581	559	373	26 705
Support personnel	FTE	1 873	2 638	1 155	735	376	265	131	70	7 243
Total	FTE	9 292	10 589	6 979	2 723	2 387	846	690	443	33 949
Per 100 000 people		126.4	186.4	151.4	110.1	143.6	165.0	181.8	187.0	148.2
Volunteers										
Operational	no.	84 101	42 019	na	34 065	na	5 960	1 842	na	na
Support volunteers	no.	2 655	19 876	na	1 577	na	–	–	na	na
Total	no.	86 756	61 895	41 115	35 642	16 751	5 960	1 842	1 716	251 677
Community first responders (ambulance)	no.	208	411	242	1 368	46	48	–	–	2 323
Ambulance service organisations										
Salaried personnel										
Operational	FTE	3 715	2 940	3 346	877	960	285	190	131	12 444
Support personnel	FTE	627	727	532	398	314	83	54	41	2 776
Total	FTE	4 342	3 667	3 878	1 275	1 274	368	244	172	15 220
Per 100 000 people		59.1	64.6	84.1	51.6	76.7	71.7	64.3	72.6	66.4
Volunteers										
Operational	no.	100	603	115	4 217	1 282	557	–	–	6 874
Support volunteers	no.	26	–	–	364	192	–	–	–	582
Total	no.	126	603	115	4 581	1 474	557	–	–	7 456
Community first responders	no.	208	411	242	1 368	46	48	–	–	2 323

TABLE DA.4

Table DA.4 **Emergency services human resources, 2012-13 (a)**

		<i>NSW</i>	<i>Vic</i>	<i>Qld (b)</i>	<i>WA (b)</i>	<i>SA (b)</i>	<i>Tas</i>	<i>ACT</i>	<i>NT (b)</i>	<i>Aust (b)</i>
Fire and emergency service organisations (Fire and SES)										
Salaried personnel										
Operational	FTE	3 704	5 011	2 478	1 111	1 051	296	369	242	14 262
Support personnel	FTE	1 246	1 911	623	337	62	182	77	29	4 467
Total	FTE	4 950	6 922	3 101	1 448	1 113	478	446	271	18 729
Per 100 000 people		67.4	121.9	67.3	58.6	67.0	93.3	117.5	114.4	81.8
Volunteers										
Operational	no.	84 001	41 416	na	29 848	na	5 403	1 842	na	na
Support volunteers	no.	2 629	19 876	na	1 213	na	–	–	na	na
Total	no.	86 630	61 292	41 000	31 061	15 277	5 403	1 842	1 716	244 221
State/Territory emergency service (SES) organisations										
Salaried personnel										
Operational	FTE	254	42	na	na	31	10	8	13	na
Support personnel	FTE	–	131	na	na	10	16	–	6	na
Total	FTE	254	173	na	na	41	26	8	19	na
Per 100 000 people		3.5	3.0	na	na	2.5	5.1	2.1	8.0	na
Volunteers										
Operational	no.	7 454	3 317	na	1 971	na	531	243	na	na
Support volunteers	no.	–	367	na	53	na	–	–	na	na
Total	no.	7 454	3 684	6 000	2 024	1 617	531	243	324	21 877
Fire service organisations										
Salaried personnel										

TABLE DA.4

Table DA.4 **Emergency services human resources, 2012-13 (a)**

		<i>NSW</i>	<i>Vic</i>	<i>Qld</i> (b)	<i>WA</i> (b)	<i>SA</i> (b)	<i>Tas</i>	<i>ACT</i>	<i>NT</i> (b)	<i>Aust</i> (b)
Operational	FTE	3 450	4 969	2 478	1 111	1 020	286	361	229	13 904
Support personnel	FTE	1 246	1 780	623	337	52	166	77	23	4 304
Total	FTE	4 696	6 749	3 101	1 448	1 072	452	438	252	18 208
Per 100 000 people		63.9	118.8	67.3	58.6	64.5	88.2	115.4	106.4	79.5
Volunteers										
Operational	no.	76 547	38 099	na	27 877	10 341	4 872	1 599	542	na
Support volunteers	no.	2 629	19 509	na	1 160	3 319	–	–	850	na
Total	no.	79 176	57 608	35 000	29 037	13 660	4 872	1 599	1 392	222 344

(a) Estimated Resident Populations (ERPs) to June 2011 used to derive rates are revised to the ABS' final 2011 Census rebased ERPs. The final ERP replaces the preliminary 2006 Census based ERPs used in the 2013 Report. ERP data from December 2011 are first preliminary estimates based on the 2011 Census. See Chapter 2 (table 2A.1-2) for details.

(b) Jurisdiction notes:

Qld: Volunteer numbers may fluctuate as members leave the service, new members are recruited and data cleansing occurs.

WA: FESA provides a wide range of emergency services under an integrated management structure. Data for the Department of Environment and Conservation are not included.

SA: SES volunteers refer to active, operational members.

NT: Transient people in the NT result in fluctuations in the numbers of volunteers. The NT Fire and Rescue Service did not distinguish between volunteer firefighters and volunteer fire support staff therefore all volunteers have been shown as operational.

Aust: For SES salaried personnel, Australian total excludes WA. For Fire service organisations salaried personnel, Australian total includes WA FSO salaried personnel, which includes personnel for the SES, Fire and Rescue Services, Bush Fire Services and Volunteer Marine Rescue Services.

na Not available.

Source: State and Territory governments; ABS (unpublished), *Australian Demographic Statistics*, Cat. no. 3101.0 [data available on request] (table 2A.2).

TABLE DA.5

Table DA.5 **Australian Government Natural Disaster Resilience Program, funding to State and Territory government (\$ million) (2012-13 dollars) (a), (b), (c), (d), (e)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
2012-13	6.8	4.2	3.0	1.6	2.1	3.8	1.3	1.3	24.0
2011-12	6.7	4.2	6.0	3.2	2.1	5.6	1.3	1.3	30.5
2010-11	7.1	4.1	6.3	3.2	3.0	1.6	1.6	0.4	27.3
2009-10	11.8	3.7	7.1	3.3	4.9	1.2	1.5	2.4	36.9
2008-09	na	na	na	na	na	na	na	na	na

- (a) Time series financial data are adjusted to 2012-13 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2012-13 = 100) (table 2A.53). The GGFCE replaces the Gross Domestic Product implicit price deflator used in previous editions. See Chapter 2 (section 2.5) for details.
- (b) Totals may not sum as a result of rounding.
- (c) Data presented are the total cash payments in current dollars.
- (d) The Natural Disaster Resilience Program (NDRP), which was administered under a National Partnership Agreement, began in the 2009-10 financial year, subsuming the previous Bushfire Mitigation and Natural Disaster Mitigation Programs. The 2009-10 financial year data represent the net position for these three programs.
- (e) The amounts for Tasmania in the 2011-12 and 2012-13 financial years include funding for the Launceston Flood Levee, which was funded under the National Disaster Resilience Program.

na Not available.

Source: Australian Government (unpublished); ABS 2013, *Australian National Accounts: National Income, Expenditure and Product, June 2013*, Cat. no. 5206.0 (table 2A.53).

TABLE DA.6

Table DA.6 **Australian Government Natural Disaster Relief and Recovery Arrangements payments, funding to State and Territory governments (\$ million) (2012-13 dollars) (a), (b), (c), (d)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
2012-13	–	–	0.9	52.7	–	7.2	–	16.3	77.1
2011-12	–	–	2 999.0	1.7	–	–	–	8.0	3 008.7
2010-11	–	517.6	2 335.4	–	–	–	–	2.5	2 855.5
2009-10	6.6	4.6	112.9	–	–	0.6	–	2.9	127.8
2008-09	–	299.9	–	–	–	–	–	10.6	310.4
2007-08	8.9	–	–	–	2.3	–	–	8.3	19.4
2006-07	na	na	na	na	na	na	na	na	na

- (a) Time series financial data are adjusted to 2012-13 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2012-13 = 100) (table 2A.53). The GGFCE replaces the Gross Domestic Product implicit price deflator used in previous editions. See Chapter 2 (section 2.5) for details.
- (b) Totals may not sum as a result of rounding.
- (c) Data presented are the total cash payments in current dollars.
- (d) State/Territory expenditure for Natural Disaster Relief and Recovery Arrangements eligible events can be made within 24 months after the end of the financial year in which the relevant disaster occurred unless an extension is granted. Therefore, costs reported for any given financial year may include payments for events that occurred in the previous years. Costs for specific events are not finalised until the claim period has passed. For accounting purposes, the Australian Government budget paper calculates expenditure as the present value of future payments expected to be made to the States and Territories governments under the Natural Disaster Relief and Recovery Arrangements.

na Not available. – Nil or rounded to zero.

Source: Australian Government (unpublished); ABS 2013, *Australian National Accounts: National Income, Expenditure and Product, June 2013*, Cat. no. 5206.0 (table 2A.53).

TABLE DA.7

Table DA.7 **Asset loss from emergency events (\$ million) (2012-13 dollars)**
(a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus</i>
2012-13									
Fire	35.0	–	–	–	–	88.2	–	–	123.2
Storm	119.8	–	971.0	–	–	–	–	–	1 090.8
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	154.8	–	971.0	–	–	88.2	–	–	1 214.0
2011-12									
Fire	–	–	–	54.3	–	–	–	–	54.3
Storm	–	740.5	–	–	–	–	–	–	740.5
Flood	115.1	18.9	133.6	–	–	–	–	–	267.6
Other	–	–	–	–	–	–	–	–	–
Total	115.1	759.4	133.6	54.3	–	–	–	–	1 062.4
2010-11									
Fire	–	–	–	36.4	–	–	–	–	36.4
Storm	–	504.8	1 461.9	–	–	–	–	–	1 966.7
Flood	–	130.9	2 471.7	–	–	–	–	–	2 602.6
Other	–	–	–	–	–	–	–	–	–
Total	–	635.7	3 933.6	36.4	–	–	–	–	4 605.7
2009-10									
Fire	–	–	–	–	–	–	–	–	–
Storm	–	1 127.4	–	1 137.1	–	–	–	–	2 264.6
Flood	–	–	50.4	–	–	–	–	–	50.4
Other	–	–	–	–	–	–	–	–	–
Total	–	1 127.4	50.4	1 137.1	–	–	–	–	2 315.0
2008-09									
Fire	–	1 186.3	–	–	–	–	–	–	1 186.3
Storm	–	–	342.6	–	–	–	–	–	342.6
Flood	94.2	–	21.1	–	–	–	–	–	115.3
Other	–	–	–	–	–	–	–	–	–
Total	94.2	1 186.3	363.6	–	–	–	–	–	1 644.1
2007-08									
Fire	–	–	–	–	–	–	–	–	–
Storm	547.1	53.5	42.0	–	16.2	5.1	–	–	664.0
Flood	10.8	17.3	558.9	–	–	–	–	–	586.9
Other	–	–	–	–	–	–	–	–	–
Total	557.9	70.7	600.9	–	16.2	5.1	–	–	1 250.9
2006-07									
Fire	–	–	–	–	–	–	–	–	–
Storm	1 837.9	–	–	9.6	–	–	–	–	1 847.5

TABLE DA.7

Table DA.7 **Asset loss from emergency events (\$ million) (2012-13 dollars)**
(a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus</i>
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	1 837.9	–	–	9.6	–	–	–	–	1 847.5
2005-06									
Fire	–	28.0	–	–	–	–	–	–	28.0
Storm	–	–	750.3	–	–	–	–	–	750.3
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	–	28.0	750.3	–	–	–	–	–	778.3
2004-05									
Fire	–	–	–	–	36.1	–	–	–	36.1
Storm	134.8	100.2	22.9	69.4	31.0	9.8	6.7	–	374.8
Flood	32.6	–	70.3	–	–	–	–	–	102.9
Other	–	–	–	–	–	–	–	–	–
Total	167.4	100.2	93.2	69.4	67.1	9.8	6.7	–	513.8
2003-04									
Fire	–	–	–	–	–	–	–	–	–
Storm	18.4	13.6	38.9	–	–	1.3	0.9	–	73.1
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	18.4	13.6	38.9	–	–	1.3	0.9	–	73.1
2002-03									
Fire	35.2	16.9	–	–	–	–	492.2	–	544.2
Storm	–	–	–	–	–	–	–	–	–
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	35.2	16.9	–	–	–	–	492.2	–	544.2
2001-02									
Fire	49.8	–	–	–	–	–	49.8	–	99.6
Storm	115.5	–	–	–	–	–	–	–	115.5
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	165.3	–	–	–	–	–	49.8	–	215.1
2000-01									
Fire	–	–	–	–	–	–	–	–	–
Storm	92.9	–	–	–	–	–	–	–	92.9
Flood	37.4	–	55.4	–	–	–	–	–	92.9
Other	–	–	–	–	–	–	–	–	–
Total	130.3	–	55.4	–	–	–	–	–	185.7

TABLE DA.7

Table DA.7 **Asset loss from emergency events (\$ million) (2012-13 dollars)**
(a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus</i>
1999-2000									
Fire	–	–	–	–	–	–	–	–	–
Storm	70.2	–	40.6	–	–	–	–	–	110.8
Flood	–	15.6	18.7	–	–	–	–	–	34.3
Other	–	–	–	–	–	–	–	–	–
Total	70.2	15.6	59.3	–	–	–	–	–	145.2
1998-99									
Fire	–	–	–	–	–	–	–	–	–
Storm	2 706.9	–	157.6	55.7	–	–	–	–	2 920.3
Flood	63.7	–	–	–	–	–	–	–	63.7
Other	–	–	–	–	–	–	–	–	–
Total	2 770.6	–	157.6	55.7	–	–	–	–	2 984.0
1997-98									
Fire	–	–	–	–	–	–	–	–	–
Storm	75.5	–	–	–	–	–	–	–	75.5
Flood	–	–	116.5	–	–	–	–	114.8	231.3
Other	–	–	–	–	–	–	–	–	–
Total	75.5	–	116.5	–	–	–	–	114.8	306.7
1996-97									
Fire	–	16.7	–	–	–	–	–	–	16.7
Storm	323.2	–	–	–	–	–	–	–	323.2
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	323.2	16.7	–	–	–	–	–	–	340.0
1995-96									
Fire	–	–	–	–	–	–	–	–	–
Storm	17.0	–	68.1	–	–	–	–	–	85.1
Flood	26.4	–	26.4	–	–	–	–	–	52.8
Other	–	–	–	–	–	–	–	–	–
Total	43.4	–	94.5	–	–	–	–	–	137.9
1994-95									
Fire	–	–	102.6	–	–	–	–	–	102.6
Storm	50.4	–	–	19.1	–	–	–	–	69.5
Flood	–	–	–	–	–	–	–	–	–
Other	64.6	–	–	–	–	–	–	–	64.6
Total	115.0	–	102.6	19.1	–	–	–	–	236.7
1993-94									
Fire	103.3	–	–	–	–	–	–	–	103.3
Storm	–	–	–	64.8	–	–	–	–	64.8

TABLE DA.7

Table DA.7 **Asset loss from emergency events (\$ million) (2012-13 dollars)**
(a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus</i>
Flood	–	21.0	–	–	–	–	–	–	21.0
Other	–	–	–	–	–	–	–	–	–
Total	103.3	21.0	–	64.8	–	–	–	–	189.1
1992-93									
Fire	–	–	–	–	–	–	–	–	–
Storm	–	–	–	–	–	–	–	–	–
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	–	–	–	–	–	–	–	–	–
1991-92									
Fire	21.6	–	–	–	–	–	–	–	21.6
Storm	212.0	–	–	–	–	–	–	–	212.0
Flood	–	43.1	–	–	–	–	–	–	43.1
Other	–	–	–	–	–	–	–	–	–
Total	233.6	43.1	–	–	–	–	–	–	276.7
1990-91									
Fire	–	–	–	–	–	–	–	–	–
Storm	259.0	22.5	–	–	56.1	–	–	–	337.6
Flood	–	–	59.9	–	–	–	–	–	59.9
Other	–	–	–	–	–	–	–	–	–
Total	259.0	22.5	59.9	–	56.1	–	–	–	397.5
1989-90									
Fire	–	–	–	–	–	–	–	–	–
Storm	626.5	39.3	64.8	–	–	–	–	–	730.6
Flood	19.6	19.6	78.6	–	–	–	–	–	117.8
Other	1 692.9	–	–	–	–	–	–	–	1 692.9
Total	2 339.1	58.9	143.4	–	–	–	–	–	2 541.3
1988-89									
Fire	–	–	–	–	–	–	–	–	–
Storm	5.4	–	48.8	–	–	–	–	–	54.3
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	5.4	–	48.8	–	–	–	–	–	54.3
1989-90									
Fire	–	–	–	–	–	–	–	–	–
Storm	–	–	–	44.2	–	–	–	–	44.2
Flood	55.3	–	–	–	–	–	–	22.1	77.4
Other	–	–	–	–	–	–	–	–	–
Total	55.3	–	–	44.2	–	–	–	22.1	121.6

TABLE DA.7

Table DA.7 **Asset loss from emergency events (\$ million) (2012-13 dollars)**
(a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus</i>
1986-87									
Fire	–	–	–	–	–	–	–	–	–
Storm	239.2	–	–	–	23.0	–	–	–	262.2
Flood	80.5	–	–	–	–	–	–	–	80.5
Other	–	–	–	–	–	–	–	–	–
Total	319.7	–	–	–	23.0	–	–	–	342.7
1985-86									
Fire	–	–	–	–	–	–	–	–	–
Storm	61.0	–	97.6	–	–	–	–	–	158.7
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	61.0	–	97.6	–	–	–	–	–	158.7
1984-85									
Fire	65.2	–	–	–	–	–	–	–	65.2
Storm	–	–	–	–	–	–	–	–	–
Flood	208.6	–	–	–	–	–	–	–	208.6
Other	–	–	–	–	–	–	–	–	–
Total	273.7	–	–	–	–	–	–	–	273.7
1983-84									
Fire	–	–	–	–	–	–	–	–	–
Storm	–	–	–	–	–	–	–	–	–
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	–	–	–	–	–	–	–	–	–

(a) Time series financial data are adjusted to 2012-13 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2012-13 = 100) (table 2A.53). The GGFCE replaces the Gross Domestic Product implicit price deflator used in previous editions. See Chapter 2 (section 2.5) for details.

(b) Costs not taken into account: emergency response by emergency services; local, State, Territory and Commonwealth governments; non-government organisations; local government clean-up; remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion); community dislocation; loss of jobs; rehabilitation/recovery services; and basic medical and funeral costs associated with injuries and deaths.

(c) Total Asset Loss: all insurance losses (claims by policy holders, based on figures from the Insurance Council of Australia). The data are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers. Events are only recorded where there is a potential for the insured loss to exceed \$10 million.

– Nil or rounded to zero.

Table DA.7 **Asset loss from emergency events (\$ million) (2012-13 dollars)**
(a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aus</i>
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Source: Insurance Council of Australia 2013, *Historical & current disaster statistics*, <http://www.insurancecouncil.com.au/Default.aspx?tabid=1572> (accessed 10 October 2013); Australian Government 2013, *Attorney-General's Department Disasters Database*, <http://www.disasters.ema.gov.au/> (accessed 10 October 2013); ABS 2013, *Australian National Accounts: National Income, Expenditure and Product, June 2013*, Cat. no. 5206.0 (table 2A.53).

TABLE DA.8

Table DA.8 Road traffic death rate (a), (b), (c), (d)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (e)</i>
Road traffic deaths									
Annual rate	<i>per million people</i>								
2011	39.1	56.0	67.7	75.6	66.5	48.9	51.6	194.6	56.3
2010	51.4	60.8	68.3	88.6	80.5	72.7	55.3	187.1	65.2
2009	58.4	62.2	88.7	94.6	72.1	119.0	64.8	185.8	72.3
2008	48.5	67.3	92.0	105.4	74.9	96.3	66.0	336.6	73.0
2007	50.8	66.2	92.4	116.8	91.0	97.3	49.6	196.5	74.6
2006	63.3	72.5	89.3	101.4	87.0	114.4	50.7	215.3	78.3
2005	54.4	78.0	73.0	84.0	102.7	102.8	78.5	252.5	74.0
2004	58.6	70.0	80.2	90.4	92.3	122.1	36.5	167.8	73.6
2003	68.3	72.6	79.6	94.2	110.5	83.6	39.7	267.7	79.3
2002	79.5	83.6	93.3	95.9	98.6	78.0	40.0	281.8	87.7
2001	82.2	93.4	104.4	91.8	101.1	105.6	46.7	213.1	92.9
2000	94.2	89.7	91.2	110.7	110.9	61.3	63.0	281.2	96.1
1999	90.2	92.2	91.8	100.9	101.9	97.2	50.9	168.4	93.3
1998	89.3	88.8	83.1	95.3	107.2	59.1	102.7	326.6	92.0
1997	86.1	100.7	110.6	102.9	83.4	44.2	64.4	216.1	95.5
1996	95.7	91.1	119.0	138.0	119.8	124.1	80.7	346.9	107.9
1995	102.7	98.9	146.4	121.0	114.6	126.4	65.4	278.4	114.1
1994	103.2	97.0	129.8	133.2	111.4	114.0	99.3	223.0	111.4
1993	93.9	103.7	130.2	126.9	144.0	129.2	36.7	238.8	111.5
1992	113.1	105.6	140.9	126.6	119.6	138.3	91.6	237.3	119.3
1991	113.9	126.7	134.4	127.1	148.0	177.8	114.1	416.9	129.4
1990	141.4	143.9	153.5	128.3	159.2	155.8	127.6	390.9	146.9
1989	160.5	200.2	154.5	148.2	152.9	180.1	115.8	359.8	169.6
1988	175.7	201.1	188.0	162.8	181.5	181.8	158.0	578.5	187.3
1987	159.5	188.1	170.5	138.3	188.8	189.2	180.8	341.3	172.2
1986	185.7	179.5	190.9	174.8	208.3	199.3	154.5	349.7	187.3
1985	193.8	165.0	205.0	161.4	203.5	187.4	159.1	350.1	186.8
1984	166.2	170.0	200.1	156.0	165.4	189.6	252.9	323.6	175.2
1983	173.9	187.6	202.6	160.0	198.4	171.0	117.2	551.8	185.4
1982	238.3	200.1	257.8	179.3	202.8	230.3	171.6	299.3	222.3
Annual rate (3 year average)	<i>per million people</i>								
2009 to 2011	49.5	59.6	74.8	86.1	73.0	80.0	57.2	189.2	64.5
2008 to 2010	52.8	63.4	82.8	96.1	75.9	95.9	62.0	235.3	70.1
2007 to 2009	52.6	65.2	91.0	105.4	79.3	104.3	60.2	239.5	73.3
2006 to 2008	54.1	68.6	91.3	107.9	84.3	102.6	55.5	250.5	75.3
2005 to 2007	56.1	72.2	85.1	101.0	93.5	104.8	59.5	221.1	75.6
2004 to 2006	58.8	73.5	80.9	92.0	93.9	113.1	55.2	212.1	75.3

TABLE DA.8

Table DA.8 Road traffic death rate (a), (b), (c), (d)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (e)</i>
2003 to 2005	60.4	73.6	77.5	89.5	101.8	102.9	51.6	229.4	75.6
2002 to 2004	68.8	75.4	84.3	93.5	100.4	94.7	38.7	239.0	80.1
2001 to 2003	76.6	83.2	92.3	94.0	103.4	89.0	42.1	254.2	86.5
2000 to 2002	85.2	88.9	96.3	99.4	103.5	81.6	49.8	258.6	92.2
1999 to 2001	88.8	91.8	95.9	101.1	104.6	88.0	53.5	221.1	94.1
1998 to 2000	91.2	90.2	88.7	102.3	106.7	72.6	72.1	258.5	93.8
1997 to 1999	88.5	93.9	95.1	99.7	97.5	66.8	72.6	236.7	93.6
1996 to 1998	90.3	93.5	104.0	111.8	103.4	75.8	82.6	296.2	98.4
1995 to 1997	94.8	96.9	125.1	120.5	105.9	98.2	70.2	279.8	105.7
1994 to 1996	100.5	95.7	131.7	130.7	115.3	121.5	81.7	283.8	111.1
1993 to 1995	100.0	99.9	135.6	127.0	123.3	123.2	67.2	247.0	112.3
1992 to 1994	103.4	102.1	133.5	128.9	125.0	127.2	75.8	232.9	114.0
1991 to 1993	106.9	112.0	135.1	126.9	137.1	148.4	80.3	296.6	120.0
1990 to 1992	122.7	125.3	142.9	127.4	142.1	157.3	110.8	347.6	131.8
1989 to 1991	138.4	156.6	147.3	134.4	153.3	171.2	119.1	389.5	148.5
1988 to 1990	159.1	181.5	165.0	146.2	164.5	172.4	133.6	442.2	167.7
1987 to 1989	165.3	196.5	170.8	149.9	174.3	183.7	151.1	426.4	176.4
1986 to 1988	173.6	189.7	183.1	158.6	192.8	190.1	164.5	424.0	182.3
1985 to 1987	179.5	177.6	188.5	158.0	200.2	192.0	165.0	346.9	182.0
1984 to 1986	182.0	171.6	198.6	164.2	192.5	192.2	188.0	341.5	183.2
1983 to 1985	178.0	174.1	202.6	159.1	189.1	182.7	176.8	405.5	182.5
1982 to 1984	192.6	185.8	219.8	164.9	188.8	196.9	181.3	391.8	194.1
Annual road traffic deaths					<i>number</i>				
2011	282	310	303	178	109	25	19	45	1,257
2010	367	332	301	203	131	37	20	43	1,437
2009	412	334	384	212	116	60	23	42	1,568
2008	337	354	388	229	119	48	23	74	1,551
2007	347	341	380	246	143	48	17	42	1,553
2006	427	367	358	208	135	56	17	45	1,602
2005	364	389	286	169	158	50	26	52	1,494
2004	390	345	307	179	141	59	12	34	1,467
2003	452	354	298	184	168	40	13	54	1,563
2002	523	403	341	185	149	37	13	57	1,709
2001	537	445	373	175	152	50	15	43	1,790
2000	607	422	320	208	166	29	20	56	1,828
1999	575	429	317	187	152	46	16	33	1,755
1998	563	409	283	174	159	28	32	63	1,711
1997	538	460	371	185	123	21	20	41	1,759
1996	591	413	393	244	176	59	25	64	1,966

TABLE DA.8

Table DA.8 Road traffic death rate (a), (b), (c), (d)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (e)</i>
1995	627	445	474	210	168	60	20	50	2,054
1994	624	434	411	227	163	54	30	39	1,983
1993	563	463	403	213	210	61	11	41	1,966
1992	674	470	426	210	174	65	27	40	2,086
1991	672	560	398	208	214	83	33	69	2,237
1990	825	630	445	207	228	72	36	64	2,507
1989	927	865	437	234	217	82	32	58	2,852
1988	1,003	857	515	250	255	82	43	92	3,097
1987	896	792	456	207	263	85	48	54	2,801
1986	1,027	747	501	255	288	89	40	54	3,001
1985	1,059	680	527	229	279	83	40	52	2,949
1984	898	693	505	217	225	83	62	46	2,729
1983	931	757	503	219	267	74	28	75	2,854
1982	1,264	799	625	240	270	99	40	39	3,376

- (a) Data for 2011 are preliminary and subject to a revisions process. Data for 2009 and 2010 have been subject to revisions. See *Causes of Death, Australia* (Cat. no. 3303.0) Technical Note: Causes of Death Revisions. Cells in this table have been randomly adjusted to avoid the release of confidential data. Where necessary, totals have been adjusted separately to the component cells and totals are not necessarily the sum of the component cells.
- (b) Road traffic deaths include ICD codes Road traffic accidents (V01-V79), Intentional self-harm by crashing of motor vehicle (X82), Assault by crashing of motor vehicle (Y03), and Crashing of motor vehicle, undetermined intent (Y32). Deaths data are reported by the State or Territory of the deceased's usual residence, and by the year the death was registered.
- (c) The number of road traffic deaths provided in *Causes of Death* (ABS Cat. no. 3303.0) is different to the number of 'Road fatalities' presented in chapter 9. ABS data are sourced from death registrations. 'Road fatalities' in chapter 9 provides more recent data sourced by the Australian Road Deaths Database as reported by the police each month to road safety authorities.
- (d) The small number of deaths means it is difficult to establish patterns and provide detailed analysis.
- (e) Includes Other Territories.

Source: ABS 2013, *Causes of Death, Australia*, Cat. no. 3303.0; ABS 2013, *Australian Demographic Statistics*, Cat. no. 3101.0 (table 2A.1).

TABLE DA.9

Table DA.9 Exposure to forces of nature death rate (a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (d)</i>
Exposure to forces of nature deaths									
Annual rate	<i>per million people</i>								
2011	3.2	1.3	6.0	1.7	2.4	7.8	–	17.3	3.0
2010	2.0	1.3	1.4	1.7	4.3	7.9	11.1	21.8	2.0
2009	1.6	5.6	1.2	2.7	18.0	–	–	13.3	3.9
2008	3.6	1.3	0.7	3.7	5.0	6.0	–	31.8	2.8
2007	3.4	1.4	1.5	4.7	5.1	6.1	–	–	2.6
2006	2.7	1.4	0.7	0.5	7.7	12.3	–	4.8	2.4
2005	1.8	0.8	1.3	1.0	9.7	8.2	–	4.9	2.0
2004	2.4	2.6	6.3	–	6.5	2.1	–	19.7	3.3
2003	1.5	1.4	1.1	0.5	3.3	8.4	–	–	1.4
2002	1.4	0.2	1.6	2.1	2.0	–	–	–	1.2
2001	1.7	0.4	0.8	0.5	0.7	2.1	–	–	1.2
2000	1.4	3.6	2.0	1.1	4.0	–	–	20.1	2.3
1999	1.7	1.1	2.9	1.6	1.3	–	12.7	–	1.6
1998	1.3	1.3	0.3	1.1	3.4	–	3.2	20.7	1.3
1997	3.7	2.2	2.1	1.1	3.4	–	–	–	2.6
1996	1.0	2.9	1.8	2.3	2.7	–	–	–	1.9
1995	2.6	0.9	2.5	3.5	2.7	–	–	16.7	2.3
1994	2.5	1.1	0.9	1.8	3.4	–	9.9	17.2	2.0
1993	1.3	1.8	1.0	–	14.4	–	–	17.5	2.6
1992	1.8	1.3	2.3	1.8	4.8	–	–	–	2.0
1991	1.0	1.1	4.4	2.4	4.8	–	–	30.2	2.3
1990	5.7	1.4	1.4	2.5	3.5	6.5	–	–	3.3
1989	2.6	0.7	3.2	4.4	4.2	–	–	–	2.4
1988	2.1	0.7	3.6	–	–	–	–	–	1.8
1987	0.9	0.7	3.0	–	2.9	6.7	–	–	1.6
1986	0.9	–	2.7	–	3.6	–	–	–	1.2
1985	2.0	1.5	2.3	–	2.2	–	–	20.2	1.9
1984	0.6	1.0	1.6	2.2	3.7	–	–	21.1	1.4
1983	1.9	0.7	4.0	2.2	3.0	–	–	22.1	2.1
1982	3.2	–	1.2	–	9.0	–	–	–	2.3
Annual rate (3 year average)	<i>per million people</i>								
2009 to 2011	2.2	2.7	2.9	2.0	8.2	5.2	3.7	17.5	3.0
2008 to 2010	2.4	2.7	1.1	2.7	9.1	4.6	3.8	22.2	2.9
2007 to 2009	2.8	2.8	1.1	3.7	9.4	4.0	–	15.2	3.1
2006 to 2008	3.2	1.4	1.0	3.0	5.9	8.1	–	12.4	2.6
2005 to 2007	2.6	1.2	1.2	2.1	7.5	8.9	–	3.2	2.4
2004 to 2006	2.3	1.6	2.7	0.5	8.0	7.5	–	9.7	2.6

TABLE DA.9

Table DA.9 Exposure to forces of nature death rate (a), (b), (c)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (d)</i>
2003 to 2005	1.9	1.6	2.9	0.5	6.5	6.2	–	8.2	2.2
2002 to 2004	1.8	1.4	3.0	0.9	3.9	3.5	–	6.6	2.0
2001 to 2003	1.5	0.7	1.2	1.0	2.0	3.5	–	–	1.3
2000 to 2002	1.5	1.4	1.5	1.2	2.2	0.7	–	6.6	1.6
1999 to 2001	1.6	1.7	1.9	1.1	2.0	0.7	4.2	6.7	1.7
1998 to 2000	1.5	2.0	1.7	1.3	2.9	–	5.3	13.6	1.8
1997 to 1999	2.2	1.5	1.8	1.3	2.7	–	5.3	6.9	1.8
1996 to 1998	2.0	2.1	1.4	1.5	3.2	–	1.1	7.1	1.9
1995 to 1997	2.4	2.0	2.1	2.3	2.9	–	–	5.4	2.3
1994 to 1996	2.0	1.6	1.8	2.5	3.0	–	3.3	11.1	2.1
1993 to 1995	2.1	1.3	1.5	1.8	6.8	–	3.3	17.1	2.3
1992 to 1994	1.9	1.4	1.4	1.2	7.5	–	3.3	11.6	2.2
1991 to 1993	1.4	1.4	2.5	1.4	8.0	–	–	15.8	2.3
1990 to 1992	2.8	1.3	2.7	2.2	4.4	2.1	–	10.0	2.5
1989 to 1991	3.1	1.1	3.0	3.1	4.2	2.2	–	10.2	2.7
1988 to 1990	3.5	0.9	2.7	2.3	2.6	2.2	–	–	2.5
1987 to 1989	1.9	0.7	3.3	1.5	2.4	2.2	–	–	1.9
1986 to 1988	1.3	0.5	3.1	–	2.2	2.2	–	–	1.5
1985 to 1987	1.3	0.7	2.7	–	2.9	2.2	–	6.5	1.6
1984 to 1986	1.2	0.8	2.2	0.7	3.2	–	–	13.5	1.5
1983 to 1985	1.5	1.1	2.6	1.4	2.9	–	–	21.1	1.8
1982 to 1984	1.9	0.6	2.3	1.5	5.2	–	–	14.7	1.9
Annual exposure to forces of nature deaths					number				
2011	23	7	27	4	4	4	–	4	68
2010	14	7	6	4	7	4	4	5	44
2009	11	30	5	6	29	–	–	3	85
2008	25	7	3	8	8	3	–	7	60
2007	23	7	6	10	8	3	–	–	55
2006	18	7	3	1	12	6	–	1	50
2005	12	4	5	2	15	4	–	1	40
2004	16	13	24	–	10	1	–	4	65
2003	10	7	4	1	5	4	–	–	28
2002	9	1	6	4	3	–	–	–	23
2001	11	2	3	1	1	1	–	–	23
2000	9	17	7	2	6	–	–	4	44
1999	11	5	10	3	2	–	4	–	31
1998	8	6	1	2	5	–	1	4	25
1997	23	10	7	2	5	–	–	–	47
1996	6	13	6	4	4	–	–	–	35

TABLE DA.9

Table DA.9 **Exposure to forces of nature death rate (a), (b), (c)**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust (d)
1995	16	4	8	6	4	–	–	3	41
1994	15	5	3	3	5	–	3	3	35
1993	8	8	3	–	21	–	–	3	45
1992	11	6	7	3	7	–	–	–	35
1991	6	5	13	4	7	–	–	5	40
1990	33	6	4	4	5	3	–	–	56
1989	15	3	9	7	6	–	–	–	41
1988	12	3	10	–	–	–	–	–	29
1987	5	3	8	–	4	3	–	–	26
1986	5	–	7	–	5	–	–	–	19
1985	11	6	6	–	3	–	–	3	30
1984	3	4	4	3	5	–	–	3	22
1983	10	3	10	3	4	–	–	3	33
1982	17	–	3	–	12	–	–	–	35

- (a) Data for 2011 are preliminary and subject to a revisions process. Data for 2009 and 2010 have been subject to revisions. See *Causes of Death, Australia* (Cat. no. 3303.0) Technical Note: Causes of Death Revisions. Cells in this table have been randomly adjusted to avoid the release of confidential data. Where necessary, totals have been adjusted separately to the component cells and totals are not necessarily the sum of the component cells.
- (b) Exposure to forces of nature includes ICD codes X30-X39. Deaths data are reported by the State or Territory of the deceased's usual residence, and by the year the death was registered.
- (c) The small number of deaths means it is difficult to establish patterns and provide detailed analysis.
- (d) Includes Other Territories.
– Nil or rounded to zero.

Source: ABS 2013, *Causes of Death, Australia*, Cat. no. 3303.0; ABS 2013, *Australian Demographic Statistics*, Cat. no. 3101.0 (table 2A.1).

TABLE DA.10

Table DA.10 **Total emergency event death rate (a), (b), (c), (d)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (e)</i>
Total emergency event deaths									
Annual rate	<i>per million people</i>								
2011	48.8	62.3	80.2	82.4	75.0	66.5	65.2	246.4	65.1
2010	57.7	67.2	74.7	96.9	86.0	86.5	66.3	217.6	71.7
2009	64.8	104.4	93.8	102.2	98.8	138.8	76.1	216.8	88.6
2008	56.5	75.3	97.6	117.0	89.4	120.3	66.0	372.9	81.6
2007	57.7	73.3	100.0	127.7	103.1	111.5	55.5	229.2	82.6
2006	70.7	78.2	96.8	104.8	103.1	128.8	56.7	220.0	85.9
2005	65.4	84.2	78.9	88.5	120.9	121.3	87.5	267.1	82.9
2004	66.9	77.3	90.3	93.5	106.7	146.9	39.5	192.4	82.4
2003	76.7	80.0	85.5	105.0	124.3	106.6	42.8	272.6	87.9
2002	88.3	90.9	101.6	103.2	108.5	94.9	43.1	291.7	96.1
2001	88.1	97.2	110.0	99.1	112.4	126.7	56.0	218.1	99.5
2000	104.1	99.7	102.9	115.5	120.9	63.4	75.7	306.3	106.0
1999	97.7	98.9	104.2	105.2	114.0	103.6	73.2	188.8	101.6
1998	99.4	96.8	91.6	103.5	118.0	84.5	105.9	352.5	101.6
1997	96.2	109.6	122.2	113.4	98.3	61.1	74.1	237.1	106.0
1996	108.0	102.8	127.5	144.8	132.7	130.4	80.7	368.5	118.7
1995	114.8	108.1	161.9	130.8	131.7	139.1	65.4	295.1	126.2
1994	114.0	107.3	141.8	140.8	129.9	128.8	129.1	240.1	123.0
1993	105.6	114.3	137.9	134.0	168.7	135.6	46.7	273.7	122.9
1992	125.0	118.2	149.2	132.6	142.2	153.2	91.6	267.0	131.4
1991	128.5	138.2	146.6	133.9	167.3	188.5	114.1	465.3	142.3
1990	153.1	153.5	161.8	142.6	171.8	173.1	127.6	409.2	157.9
1989	173.8	211.1	170.8	155.9	169.1	186.7	133.8	359.8	182.5
1988	187.5	213.0	197.5	170.0	193.6	195.1	158.0	597.4	198.6
1987	173.2	200.9	179.4	145.0	198.2	202.6	180.8	360.3	184.0
1986	198.1	190.6	203.5	183.7	220.6	210.5	154.5	369.1	199.1
1985	209.0	179.9	218.2	169.2	217.3	187.4	171.0	370.3	200.6
1984	176.8	179.8	212.0	173.2	177.2	203.3	252.9	344.7	186.5
1983	187.2	217.6	215.1	177.5	232.6	177.9	117.2	596.0	205.0
1982	253.6	219.4	279.6	189.0	224.6	244.3	184.5	330.0	240.0
Annual rate (3 year average)	<i>per million people</i>								
2009 to 2011	57.0	77.8	82.8	93.7	86.5	97.1	69.2	227.0	75.0
2008 to 2010	59.6	82.3	88.6	105.2	91.4	115.1	69.5	267.9	80.6
2007 to 2009	59.7	84.6	97.1	115.4	97.1	123.6	66.0	272.9	84.3
2006 to 2008	61.5	75.6	98.1	116.6	98.5	120.2	59.4	275.4	83.3
2005 to 2007	64.6	78.5	92.0	107.3	109.0	120.5	66.4	238.6	83.8
2004 to 2006	67.7	79.9	88.7	95.7	110.2	132.3	61.3	226.7	83.7

TABLE DA.10

Table DA.10 **Total emergency event death rate (a), (b), (c), (d)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (e)</i>
2003 to 2005	69.7	80.5	84.8	95.6	117.3	125.0	56.7	244.1	84.4
2002 to 2004	77.3	82.7	92.4	100.5	113.2	116.3	41.8	252.2	88.7
2001 to 2003	84.3	89.3	98.8	102.5	115.1	109.4	47.3	260.8	94.4
2000 to 2002	93.4	95.9	104.8	105.9	113.9	95.0	58.1	271.9	100.5
1999 to 2001	96.6	98.6	105.7	106.6	115.8	97.9	68.2	237.9	102.4
1998 to 2000	100.4	98.5	99.6	108.1	117.6	83.8	84.8	282.3	103.1
1997 to 1999	97.8	101.7	105.9	107.3	110.1	83.0	84.4	259.2	103.1
1996 to 1998	101.2	103.1	113.6	120.3	116.3	92.0	86.9	319.1	108.7
1995 to 1997	106.3	106.8	136.9	129.6	120.9	110.2	73.4	299.7	116.9
1994 to 1996	112.2	106.0	143.6	138.8	131.4	132.8	91.5	302.4	122.6
1993 to 1995	111.5	109.9	147.4	135.2	143.4	134.5	80.4	269.9	124.1
1992 to 1994	114.8	113.3	142.9	135.9	146.9	139.2	89.2	260.1	125.7
1991 to 1993	119.7	123.5	144.5	133.5	159.4	159.0	83.7	334.2	132.1
1990 to 1992	135.4	136.5	152.4	136.3	160.4	171.6	110.8	379.7	143.8
1989 to 1991	151.6	167.3	159.5	144.0	169.4	182.8	125.0	411.9	160.7
1988 to 1990	171.3	192.3	176.3	155.9	178.1	184.9	139.6	454.6	179.5
1987 to 1989	178.2	208.4	182.5	157.1	186.9	194.7	157.2	439.0	188.3
1986 to 1988	186.2	201.6	193.4	166.1	204.1	202.7	164.5	443.1	193.9
1985 to 1987	193.3	190.5	200.1	165.8	212.0	200.2	168.9	366.5	194.5
1984 to 1986	194.7	183.5	211.1	175.5	205.2	200.4	191.9	361.7	195.5
1983 to 1985	191.1	192.3	215.1	173.3	209.0	189.6	180.8	433.7	197.3
1982 to 1984	205.6	205.5	235.1	179.8	211.3	208.4	185.5	423.6	210.3
Annual emergency event deaths				number					
2011	352	345	359	194	123	34	24	57	1 454
2010	412	367	329	222	140	44	24	50	1 580
2009	457	561	406	229	159	70	27	49	1 922
2008	392	396	412	254	142	60	23	82	1 734
2007	394	378	411	269	162	55	19	49	1 720
2006	477	396	388	215	160	63	19	46	1 756
2005	438	420	309	178	186	59	29	55	1 672
2004	445	381	346	185	163	71	13	39	1 642
2003	508	390	320	205	189	51	14	55	1 734
2002	581	438	371	199	164	45	14	59	1 873
2001	575	463	393	189	169	60	18	44	1 917
2000	671	469	361	217	181	30	24	61	2 018
1999	623	460	360	195	170	49	23	37	1 911
1998	627	446	312	189	175	40	33	68	1 891
1997	601	501	410	204	145	29	23	45	1 953
1996	667	466	421	256	195	62	25	68	2 164

TABLE DA.10

Table DA.10 **Total emergency event death rate (a), (b), (c), (d)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust (e)</i>
1995	701	486	524	227	193	66	20	53	2 273
1994	689	480	449	240	190	61	39	42	2 190
1993	633	510	427	225	246	64	14	47	2 167
1992	745	526	451	220	207	72	27	45	2 296
1991	758	611	434	219	242	88	33	77	2 460
1990	893	672	469	230	246	80	36	67	2 695
1989	1 004	912	483	246	240	85	37	58	3 068
1988	1 070	908	541	261	272	88	43	95	3 284
1987	973	846	480	217	276	91	48	57	2 992
1986	1 096	793	534	268	305	94	40	57	3 190
1985	1 142	741	561	240	298	83	43	55	3 167
1984	955	733	535	241	241	89	62	49	2 906
1983	1 002	878	534	243	313	77	28	81	3 155
1982	1 345	876	678	253	299	105	43	43	3 644

- (a) Data for 2011 are preliminary and subject to a revisions process. Data for 2009 and 2010 have been subject to revisions. See *Causes of Death, Australia* (Cat. no. 3303.0) Technical Note: Causes of Death Revisions. Cells in this table have been randomly adjusted to avoid the release of confidential data. Where necessary, totals have been adjusted separately to the component cells and totals are not necessarily the sum of the component cells.
- (b) Deaths are coded according to the ICD and Related Health Problems Revision 10 (ICD-10). Deaths data are reported by the year the death was registered. Road traffic deaths includes ICD codes V01-V79, X82, Y03 and Y32. Exposure to forces of nature includes ICD codes X30-X39. Fire deaths include ICD fire death codes X00-X09 plus X76, X97 and Y26. Data are reported by the State or Territory of the deceased's usual residence, and by the year the death was registered.
- (c) See chapter 9 for fire deaths data.
- (d) The small number of deaths means it is difficult to establish patterns and provide detailed analysis.
- (e) Includes Other Territories.

Source: ABS 2013, *Causes of Death, Australia*, Cat. no. 3303.0; ABS 2013, *Australian Demographic Statistics*, Cat. no. 3101.0 (table 2A.1); table 9A.6; tables DA.8-9.

All jurisdictions — State/Territory emergency services

TABLE DA.11

Table DA.11 **All activities of State Emergency Services and Territory Emergency Services**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Storm damage	✓	✓	✓	✓	✓	✓	✓	✓
Flood response	✓	✓	✓	✓	✓	✓	✓	✓
Road crash rescue	✓	✓	✓	✓	✓	✓	✘	✓
Earthquakes	✓(a)	✓	✓	✓	✓	✓	✓(a)	✓
Civil defence	✓	✓	✓	✓	✓	✓	✓	✓
National security support	✓(a)	✓	✓(a)	✓	✓	✓(a)	✓	✓(a)
Land search and rescue	✓(a)	✓(a)	✓(a)	✓(a)	✓	✓(a)	✓(a)	✓
Urban search and rescue	✓(a)	✓	✓(a)	✓(a)	✓	✓(a)	✓(a)	✓(a)
Inland marine search and rescue	✓(a)	✓(a)	✓(a)	✓(a)	✓	✓(a)	✘	✓
Offshore marine search and rescue	✘	✓(a)	✘	✓(b)	✓	✘	✓(b)	✓
Support to non-government emergency service organisations	✓	✓	✓	✓	✓	✓	✓	✓
Assistance for municipal planning	✓	✓	✓	✓	✓	✓	✘	✓
Conduct of emergency management courses	✘	✓	✓	✓	✓	✓	✘	✓
Air observer (b)	✓(a)	✓	✓(a)	✓(a)	✓	✓(a)	✓	✓
Vertical rescue	✓	✓	✓	✓	✓	✓(a)	✘	✓
Public safety awareness and education	✓	✓	✓	✓	✓	✓	✓	✓
Tropical cyclone response	✘	✘	✓	✓	✘	✘	✘	✓
Tsunami response	✓	✓	✓	✓	✘	✓(a)	✘	✓

(a) This role is to provide support to another agency in this activity.

(b) WASES and ACTSES undertake air observer duties only, offshore. They do not participate in sea rescue.

Source: State and Territory governments (unpublished).

TABLE DA.12

Table DA.12 **Major sources of State/Territory emergency service organisations' revenue (2012-13 dollars) (a), (b)**

		<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i> (c)	<i>SA</i> (c)	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i> (c)
2012-13										
Government grants	\$'000	30 186	52 599	12 108	na	–	2 941	2 072	3 527	103 433
Total levies	\$'000	60 612	–	na	na	14 949	–	–	–	75 561
Other revenue	\$'000	3 263	4 424	na	na	309	300	87	1	8 384
Total	\$'000	94 061	57 023	12 108	na	15 258	3 241	2 159	3 528	187 378
Government grants	%									
Australian	%	9.7	–	na	na	–	–	7.4	–	5.0
State/Territory	%	12.3	92.0	100.0	na	–	90.7	88.6	100.0	45.1
Local	%	10.1	–	na	na	–	–	–	–	5.1
Levies	%	64.4	–	na	na	98.0	–	–	–	40.3
Other revenue	%	3.5	7.8	na	na	2.0	9.3	4.0	–	4.5
Total	%	100.0	100.0	100.0	na	100.0	100.0	100.0	100.0	100.0
2011-12										
Government grants	\$'000	13 893	45 220	na	na	–	2 991	1 808	3 627	na
Total levies	\$'000	53 685	–	na	na	13 654	–	–	–	na
Other revenue	\$'000	3 500	6 861	na	na	2 184	274	14	2	na
Total	\$'000	71 078	52 080	na	na	15 838	3 266	1 822	3 629	na
Government grants	%									
Australian	%	–	–	na	na	–	–	0.9	–	na
State/Territory	%	8.5	86.8	na	na	–	91.6	98.3	99.9	na
Local	%	10.7	–	na	na	–	–	–	–	na
Levies	%	75.5	–	na	na	86.2	–	–	–	na
Other revenue	%	4.9	13.2	na	na	13.8	8.4	0.8	–	na
Total	%	100.0	100.0	na	na	100.0	100.0	100.0	100.0	na

(a) Time series financial data are adjusted to 2012-13 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2012-13 = 100) (table 2A.53). The GGFCE replaces the Gross Domestic Product implicit price deflator used in previous editions. See Chapter 2 (section 2.5) for details.

(b) Figures vary from year to year as a result of abnormal expenditure related to the response to specific major emergencies.

(c) Jurisdiction notes:

WA: DFES provides a wide range of emergency services under an integrated management structure. Data cannot be segregated by service and includes State Emergency Service and volunteer marine services as well as fire. State Emergency Service financial data are consolidated and included in the financial data reported for the WA fire service organisation.

Table DA.12 **Major sources of State/Territory emergency service organisations' revenue (2012-13 dollars) (a), (b)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i> (c)	<i>SA</i> (c)	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i> (c)
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SA: Other revenue includes revenue from fees and charges, interest income, donations and volunteer unit fundraising income. The significant decrease from 2011-12 is partly due to property transferred into the control of the Minister, which was recognised as resources received free of charge in 2011-12 (\$0.644 million). Also contributing to the significant variance is the gain on revaluation of property, plant and equipment in 2011-12 (\$1.402 million).

Aust: Australian total excludes WA.

na Not available. – Nil or rounded to zero.

Source: State and Territory Governments (unpublished); ABS 2013, Australian National Accounts: National Income, Expenditure and Product, June 2013, Cat. no. 5206.0, Canberra (table 2A.53).

TABLE DA.13

Table DA.13 **State/Territory emergency service organisations' costs (\$'000) (2012-13 dollars) (a), (b)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
	(f)	(f)	(f)	(f)			(f)		(f)
2012-13									
Labour costs - Salaries and payments in the nature of salaries	27 838	17 773	2 099	na	3 081	2 001	1 031	1 725	55 548
Capital costs (c)									
Depreciation	4 097	5 524	260	na	2 260	–	504	608	13 253
User cost of capital - Other	3 517	4 416	na	na	2 580	na	527	486	11 527
Other costs (d)	54 593	25 682	9 749	na	7 114	798	849	1 074	99 859
Total costs (e)	90 045	53 395	12 108	na	15 035	2 799	2 911	3 893	180 187
Other expenses									
<i>Labour costs - Payroll tax</i>	1 410	727	133	na	133	38	–	93	2 534
<i>User cost of capital - Land</i>	–	734	na	na	225	na	192	204	1 354
<i>Interest on borrowings</i>	–	360	–	na	–	–	–	–	360
2011-12									
Labour costs - Salaries and payments in the nature of salaries	26 751	17 198	na	na	3 566	2 126	1 070	1 977	na
Capital costs (c)									
Depreciation	4 376	4 525	na	na	1 987	na	306	453	na
User cost of capital - Other	2 775	4 218	na	na	2 666	na	506	493	na
Other costs (d)	64 347	28 012	na	na	7 291	759	699	1 393	na
Total costs (e)	98 248	53 954	na	na	15 509	2 885	2 581	4 316	na
Other expenses									
<i>Payroll tax</i>	6 905	720	na	na	149	38	–	93	na
<i>User cost of capital - Land</i>	13	746	na	na	228	na	195	207	na
<i>Interest on borrowings</i>	–	- 382	na	na	–	–	–	–	na

- (a) Time series financial data are adjusted to 2012-13 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2012-13 = 100) (table 2A.53). The GGFCE replaces the Gross Domestic Product implicit price deflator used in previous editions. See Chapter 2 (section 2.5) for details.
- (b) Figures vary from year to year as a result of abnormal expenditure related to response to specific major emergencies.
- (c) The user cost of capital is partly dependent on depreciation and asset revaluation methods employed. Details of the treatment of assets by emergency management agencies across jurisdictions are outlined in table 9A.51.
- (d) Includes the running, training, maintenance, communications, provisions for losses and other recurrent costs.
- (e) Total costs excludes payroll tax, the user cost of capital associated with land, and interest on borrowings.
- (f) Jurisdiction notes:

Table DA.13 **State/Territory emergency service organisations' costs (\$'000) (2012-13 dollars) (a), (b)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
Qld:	Many SES non-physical assets are owned by Local Governments therefore EMQ is not able to provide asset values required to calculate cost of capital.								
WA:	FESA provides a wide range of emergency services under an integrated management structure. From 2006-07, data cannot be segregated by service and include costs related to the State Emergency Service and volunteer marine rescue as well as fire. Expenses also include costs related to Wildfire Suppression and Western Australia Natural Disaster Relief and Recovery Arrangements. Data for the Department of Environment and Conservation are not included.								
Tas:	Many SES non-physical assets are owned by Local Governments therefore Tasmania is not able to provide asset values required to calculate cost of capital.								
Aust:	Australian total excludes WA.								
	na Not available.			.. Not applicable.			– Nil or rounded to zero.		

Source: State and Territory Governments (unpublished); ABS 2013, Australian National Accounts: National Income, Expenditure and Product, June 2013, Cat. no. 5206.0, Canberra (table 2A.53).

TABLE DA.14

Table DA.14 **State/Territory emergency service organisations human resources (a)**

		<i>NSW</i>	<i>Vic</i> (b)	<i>Qld</i> (b)	<i>WA</i> (b)	<i>SA</i> (b)	<i>Tas</i>	<i>ACT</i>	<i>NT</i> (b)	<i>Aust</i>
2012-13										
Paid staff										
Operational	FTE	254	42	na	na	31	10	8	13	na
Support personnel	FTE	–	131	na	na	10	16	–	6	na
Total	FTE	254	173	na	na	41	26	8	19	na
Volunteers										
Operational	no.	7 454	3 317	na	1 971	na	531	243	na	na
Support personnel	no.	–	367	na	53	na	–	–	na	na
Total	no.	7 454	3 684	6 000	2 024	1 617	531	243	324	21 877
2011-12										
Paid staff										
Operational	FTE	na	48	na	na	21	14	8	18	na
Support personnel	FTE	na	162	na	na	23	10	–	1	na
Total	FTE	311	210	na	na	44	24	8	19	na
Volunteers										
Operational	no.	na	4 730	na	1 881	na	na	262	309	na
Support personnel	no.	na	770	na	46	na	na	–	35	na
Total	no.	7 312	5 500	5 400	1 927	1 674	559	262	344	22 978
2010-11										
Paid staff		na	na	na	na	na	na	na	na	na
Volunteers										
Operational	no.	na	3 273	na	1 950	na	na	na	na	na
Support personnel	no.	na	1 898	na	44	na	na	na	na	na
Total	no.	10 828	5 171	7 000	1 994	1 701	615	240	377	27 926
2009-10										
Paid staff	FTE	na	na	na	na	na	na	na	na	na
Volunteers										
Operational	no.	na	4 028	na	1 898	na	na	na	na	na
Support personnel	no.	na	1 193	na	16	na	na	na	na	na
Total	no.	10 356	5 221	6 800	1 914	1 532	537	229	335	26 924
2008-09										
Paid staff	FTE	na	na	na	na	na	na	na	na	na
Volunteers										
Operational	no.	na	3 691	na	1 886	na	552	na	na	na
Support personnel	no.	na	1 809	na	14	na	32	na	na	na
Total	no.	10 954	5 500	6 300	1 900	1 613	584	247	299	27 397
2007-08										
Paid staff	FTE	na	na	na	na	na	na	na	na	na

TABLE DA.14

Table DA.14 **State/Territory emergency service organisations human resources (a)**

		<i>NSW</i>	<i>Vic</i> (b)	<i>Qld</i> (b)	<i>WA</i> (b)	<i>SA</i> (b)	<i>Tas</i>	<i>ACT</i>	<i>NT</i> (b)	<i>Aust</i>
Volunteers										
Operational	no.	na	3 691	na	na	na	530	na	na	na
Support personnel	no.	na	1 142	na	na	na	30	na	na	na
Total	no.	10 114	4 833	6 430	1 827	1 828	560	205	293	26 090
2006-07										
Paid staff	FTE	na	na	na	na	na	na	na	na	na
Volunteers										
Operational	no.	na	3 101	na	na	na	na	na	na	na
Support personnel	no.	na	1 310	na	na	na	na	na	na	na
Total	no.	10 331	4 411	7 000	1 854	1 821	525	191	347	26 480
2005-06										
Paid staff	FTE	na	na	na	na	na	na	na	na	na
Volunteers										
Operational	no.	na	na	na	na	na	na	na	na	na
Support personnel	no.	na	na	na	na	na	na	na	na	na
Total	no.	10 302	4 437	9 394	1 863	1 896	577	168	392	29 029
2004-05										
Paid staff	FTE	na	na	na	na	na	na	na	na	na
Volunteers										
Operational	no.	na	na	na	na	na	na	194	na	na
Support personnel	no.	na	na	na	na	na	na	50	na	na
Total	no.	9 835	4 350	12 456	2 015	1 998	575	244	495	31 968
2003-04										
Paid staff	FTE	na	na	na	na	na	na	na	na	na
Volunteers										
Operational	no.	na	na	na	na	na	na	130	na	na
Support personnel	no.	na	na	na	na	na	na	50	na	na
Total	no.	10 026	4 839	17 211	2 039	2 050	464	180	582	37 391

(a) Data on SES paid staff were not collected prior to 2011-12.

(b) Jurisdiction notes:

Vic: 2012-13 volunteer numbers are less due to cleansing of volunteer records. Data excludes volunteers on leave.

Qld: Volunteer numbers may fluctuate as members leave the service, new members are recruited and data cleansing occurs.

WA: Data excludes volunteer emergency service members who may also undertake an SES role (541 in 2012-13).

Salaried personnel of the Department of Fire and Emergency Services have cross hazard responsibilities and are not broken down by service.

SA: Data refer to active, operational members.

Table DA.14 **State/Territory emergency service organisations human resources (a)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
		(b)	(b)	(b)	(b)			(b)	

NT: Transient people in the NT result in fluctuations in the numbers of volunteers.

na Not available.

Source: State and Territory governments (unpublished).

Data quality information — Emergency management sector overview (sector overview D)

Data Quality Information

Data quality information (DQI) was prepared for the first time for the 2011 Report on Government Services. DQI provides information for a selection of performance indicators in the Emergency management sector summary. DQI for additional indicators will be progressively introduced in future reports.

Where RoGS indicators align with National Agreement indicators, DQI has been sourced from the Steering Committee's reports on National Agreements to the COAG Reform Council.

Technical DQI has been supplied or agreed by relevant data providers. Additional Steering Committee commentary does not necessarily reflect the views of data providers.

DQI are available for the following performance measures:

Data quality information — Emergency management sector overview (sector overview D)	1
Total asset from emergency events	2
Deaths from emergency events	5

Total asset from emergency events

Data quality information for this indicator has been drafted by the Secretariat in consultation with the Australian Government, with additional Steering Committee comments.

Indicator definition and description

Element	Emergency management sector performance indicator framework – Sector wide indicators
Indicator	Total asset loss from emergency events
Measure	Insured losses from disaster events.
(computation)	<p>‘Insured losses from disaster events’ data are defined as the insured asset losses incurred by the community following disaster event.</p> <p>Estimates of asset losses are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers.</p> <p>To be included as a disaster event, natural, technological and human-caused events must meet at least one of the following criteria:</p> <ul style="list-style-type: none">• three or more deaths• 20 injuries or illnesses• significant damage to property, infrastructure, agriculture or the environment; or disruption to essential services, commerce or industry; or trauma or dislocation of the community at an estimated total cost of \$10 million or more at the time the event occurred. <p>For the <i>Report on Government Services</i> the following event types are in scope:</p> <ul style="list-style-type: none">• Bushfire• Cyclone• Earthquake• Environmental• Flood• Hail• Landslide• Severe Storm• Tornado• Tsunami• Urban fire. <p><u>Deflator</u></p> <p>Time series financial data are adjusted to real dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator.</p>
Data source/s	<p>Australian Government 2013, <i>Australian Emergency Management: Knowledge Hub</i>, maintained by the Australian Emergency Management Institute, http://www.emknowledge.gov.au (accessed 23 April 2013)</p> <p><u>Denominator</u></p> <p>ABS 2013, Australian National Accounts: National Income, Expenditure and Product, June 2013, Cat. no. 5206.0</p>

Data Quality Framework dimensions

Institutional environment	<p><u>Data Collector: Insurance Council of Australia (ICA)</u></p> <p>Collection authority: Data are derived from the submissions of ICA member general insurance companies following large events incurring cost to the community and insurers.</p> <p>The Insurance Council of Australia is the representative body of the general insurance industry in Australia. Its members represent more than 90 per cent of total premium income written by private sector general insurers.</p>
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	<p><u>Data Compiler: The Australian Emergency Management Institute (AEMI)</u> The AEMI hosts the Australian Emergency Management Knowledge Hub. The Knowledge Hub provides research, resources and news relevant to emergency management and includes statistics and information, photos, video and media about past disaster events. The AEMI is a centre of excellence for knowledge and skills development in the national emergency management sector. As a part of the Attorney-General's Department, AEMI provides a range of education, training, professional development, information, research and community awareness services to the nation and our region.</p>
Relevance	<p><u>Data topic:</u> Estimates of asset losses are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers.</p> <p><u>Level of geography:</u> The incurred cost of claims is available for each declared emergency event can be coded to state/territory locations.</p> <p><u>Key Data Items:</u> The incurred cost of claims is available for each declared emergency event by disaster/event type, Catastrophe Number (if declared), date, location, state, original cost and normalised cost.</p> <p><u>Additional information:</u> Value of asset loss is a measure of the economic cost of emergency events. The prevention/mitigation, preparedness, and response activities of government contribute to reduce the value of total asset loss from emergency events. A low or decreasing value of total asset loss from emergency events is desirable.</p>
Timeliness	<p><u>Data collected:</u> Data are available for individual emergency events, allowing for the creation of financial year and/or calendar year data.</p> <p><u>Data available:</u> Reports are available approximately four months after the reference period. 2012-13 financial year data should be available for inclusion in the 2014 RoGS.</p> <p><u>Additional information:</u> The final loss figure for an event can take many years to resolve.</p>
Accuracy	<p>The asset loss data do not represent the entire cost of the event, it is only an approximation of the insured loss based upon reported data.</p> <ul style="list-style-type: none"> • The final loss figure for an event can take many years to resolve. • Events are only recorded where there is a potential for the insured loss to exceed \$10 million. Many large single losses occur on a day to day basis in Australia that are not part of a larger catastrophe event. • Other costs not taken into account include: <ul style="list-style-type: none"> – the losses of insurance companies that are not a member of the Insurance Council. – costs incurred by emergency services; local, State, Territory and Commonwealth governments; non-government organisations; and by local governments during clean-up – remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion) – costs associated with community dislocation – costs associated with job losses – costs associated with rehabilitation/recovery – medical and funeral costs associated with injuries and deaths.
Coherence	<p>Insurance companies must adhere to common accounting practices for insurance companies, and provide data according to an agreed classification system.</p>
Accessibility	<p>The Attorney-General's Department aims to make information on the Knowledge Hub website accessible to all users. Data are available in a variety of formats on the website, www.emknowledge.gov.au.</p>

Interpretability

Insurance Statistics Australia publishes an Operations Guidebook, which documents the key collection processes, standards and classifications. The guidebook is available at:
<http://www.insurancestats.com.au/objectives.html>

Data Gaps/Issues Analysis**Key data
gaps/issues**

The Steering Committee notes the following key data gaps/issues:

- Volatility — due to the sporadic nature of emergency events, there is a high level of volatility in reported asset loss data. It is important therefore to assess longer term trends where data are available.
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Deaths from emergency events

Data quality information for this indicator has been drafted by the Secretariat in consultation with the ABS, with additional Steering Committee comments.

Indicator definition and description

Element	Emergency management sector performance indicator framework – Sector wide indicators
Indicator	Deaths from emergency events
Measure (computation)	<p>Deaths from emergency events' is defined as the number of deaths per calendar year in three categories:</p> <ul style="list-style-type: none">• <i>Road traffic deaths</i> — deaths primarily caused by accidents involving transport vehicles (mainly cars)• <i>Fire deaths</i> — deaths primarily caused by exposure to smoke, fire or flames• <i>Deaths from exposure to forces of nature</i> — deaths primarily caused by exposure to forces of nature, such as natural disasters, or extreme climatic or weather conditions. <p><u>Numerator/s</u></p> <p>The following International Classification of Diseases (ICD) codes are aggregated to define the data set:</p> <ul style="list-style-type: none">• <i>Road traffic deaths</i> — include ICD codes Road traffic accidents (V01–V79), Intentional self-harm by crashing of motor vehicle (X82), Assault by crashing of motor vehicle (Y03), and Crashing of motor vehicle, undetermined intent (Y32).• <i>Fire deaths</i> — include ICD codes Exposure to smoke, fire and flames (X00–X09), Intentional self-harm by smoke, fire and flames (X76), Assault by smoke, fire and flames (X97), and Exposure to smoke, fire and flames, undetermined intent (Y26).• <i>Deaths from exposure to forces of nature</i> — includes ICD codes Exposure to excessive natural heat (X30), Exposure to excessive natural cold (X31), Exposure to sunlight (X32), Victim of lightning (X33), Victim of earthquake (X34), Victim of volcanic eruption (X35), Victim of avalanche, landslide and other earth movements (X36), Victim of cataclysmic storm (X37), Victim of flood (X38), and Exposure to other and unspecified forces of nature (X39). <p><u>Denominator</u></p> <p>Population by State and Territory and Australian total</p> <p>The measure is expressed by State and Territory and Australian total, by ICD code detail and total, as an annual, and a three year rolling weighted average rate per million people.</p>
Data source/s	<p><u>Numerator</u></p> <p>ABS <i>Causes of Death, Australia</i>, Cat. no. 3303.0 (Underlying causes of death, State and Territory tables, published and unpublished data).</p> <p><u>Denominator</u></p> <p>ABS <i>Estimated Residential Population</i>, Cat. no. 3101.0 (for more detail about the population data used in the Report see RoGS Statistical context (chapter 2)).</p>

Data Quality Framework dimensions

Institutional environment	The Causes of Death collection is published by the Australian Bureau of Statistics (ABS), with data sourced from deaths registrations administered by the various State and Territory Registrars of Births,
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Relevance

Deaths and Marriages. It is a legal requirement of each State and Territory that all deaths are registered.

The ABS operates within a framework of the Census and Statistics Act 1905 and the Australian Bureau of Statistics Act 1975. These Acts ensure the confidentiality of respondents and ABS' independence and impartiality from political influence. For more information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

The ABS Causes of Death collection includes all deaths that occurred and were registered in Australia, including deaths of persons whose usual residence is overseas. Deaths of Australian residents that occurred outside Australia may be registered by individual Registrars, but are not included in ABS deaths or causes of death statistics.

Data in the Causes of Death collection include demographic items, as well as Causes of Death information coded according to the International Classification of Diseases (ICD). The ICD is the international standard classification for epidemiological purposes and is designed to promote international comparability in the collection, processing, classification, and presentation of cause of death statistics. The classification is used to classify diseases and causes of disease or injury as recorded on many types of medical records as well as death records. The ICD has been revised periodically to incorporate changes in the medical field. The 10th revision of ICD (ICD-10) has been used since 1997.

Timeliness

Causes of Death data are published on an annual basis.

Death records are provided electronically to the ABS by individual Registrars on a monthly basis for compilation into aggregate statistics on a quarterly and annual basis. One dimension of timeliness in death registrations data is the interval between the occurrence and registration of a death. As a result, a small number of deaths occurring in one year are not registered until the following year or later.

Preliminary Estimated Residential Population (ERP) data are compiled and published quarterly and are generally made available five to six months after the end of each reference quarter. Commencing with data for September quarter 2006, revised estimates are released annually and made available 21 months after the end of the reference period for the previous financial year, once more accurate births, deaths and net overseas migration data becomes available. In the case of births and deaths, the revised data are compiled on a date of occurrence basis. In the case of net overseas migration, final data are based on actual traveller behaviour. Final estimates are made available every 5 years after a census and revisions are made to the previous inter-censal period. ERP data are not changed once finalised. Releasing preliminary, revised and final ERP involves a balance between timeliness and accuracy.

Accuracy

Information on Causes of Death is obtained from a complete enumeration of deaths registered during a specified period and is not subject to sampling error. However, deaths data are subject to non-sampling error. Non-sampling error can arise from inaccuracies in collecting, recording and processing the data. The most significant of these errors are: misreporting of data items; deficiencies in coverage; non-response to particular questions; and processing errors. Every effort is made to minimise error by working closely with data providers, the careful design of forms, training of processing staff and efficient data processing procedures.

All ERP data sources are subject to non-sampling error. Non-sampling

	<p>error can arise from inaccuracies in collecting, recording and processing the data. In the case of Census and Post Enumeration Survey (PES) data, every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures.</p> <p>All coroner certified deaths registered after 1 January 2007 will be subject to a revision process. See Causes of Death, 2007, Australia (Cat. no 3303.0).</p> <p>Some rates are unreliable due to small numbers of deaths over the reference period. All rates in this indicator must be used with caution.</p>
Coherence	<p>The ABS provide source data for the numerator and denominator for this indicator.</p> <p>The number of road traffic deaths provided in <i>Causes of Death</i> (ABS Cat. no. 3303.0) is different to the number of 'Road fatalities' presented in Police services (chapter 6). The ABS source their data from death registrations recorded by the State and Territory Registrars of Births, Deaths and Marriages (where each death must be certified by either a doctor using the Medical Certificate of Cause of Death, or by a coroner). 'Road fatalities' in chapter 6 provides more recent data sourced by the Australian Road Deaths Databases reported by the police each month to the State and Territory road safety authorities.</p>
Accessibility	<p>Causes of Death data are available in a variety of formats on the ABS website, www.abs.gov.au, under Causes of Death, Australia (Cat. no 3303.0).</p> <p>ERP data are available in a variety of formats on the ABS website, www.abs.gov.au, under the 3101.0 and 3201.0 product families.</p> <p>Further information on deaths and mortality may be available on request. The ABS observes strict confidentiality protocols as required by the Census and Statistics Act (1905). This may restrict access to data at a very detailed level.</p>
Interpretability	<p>Data for this indicator are presented as crude rates, per million estimated resident population, and as three year rolling averages due to volatility of the small numbers involved.</p> <p>Information on how to interpret and use the cause of death data is available from the Explanatory Notes in Causes of Death, Australia (Cat. no 3303.0).</p> <p>Small value data are randomly adjusted to avoid the release of confidential data.</p> <p>Causes of death statistics for states and territories have been compiled in respect of the state or territory of usual residence of the deceased, regardless of where in Australia the death occurred and was registered. The ERP is Australia's population reported by state and territory and by place of usual residence.</p>

Data Gaps/Issues Analysis

Key data gaps/issues

- The Steering Committee notes the following key data gaps/issues:
- **Timeliness** — data available for the Report on Government Services are delayed by one reference year. This is due to a tradeoff between accuracy and timeliness.
 - **Volatility** — due to the small numbers of emergency event deaths annually, there is a high level of volatility in reported indicator rates. It is important therefore to assess longer term trends where data are available.