D Emergency management sector summary

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Attachment tables

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

D.1 Introduction

This sector summary provides an introduction and the policy context for the government services reported in 'Fire, road rescue and ambulance' (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 the Fire, road rescue and ambulance chapter (chapter 9).

Policy context

The emergency management sector involves government policies that affect a range of government, voluntary and private organisations engaged in areas as diverse as risk assessment, legislation, community development, emergency response, urban development and land use management, and community recovery.

The Australian, State and Territory governments have recognised that 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). It provides high-level guidance on emergency management to: Australian, State, Territory and local governments; business and community leaders; and the not-for-profit sector. The strategy focuses on priority areas for building disaster resilient communities across Australia. It also recognises that disaster resilience is a shared responsibility for individuals, businesses and communities, as well as for governments.

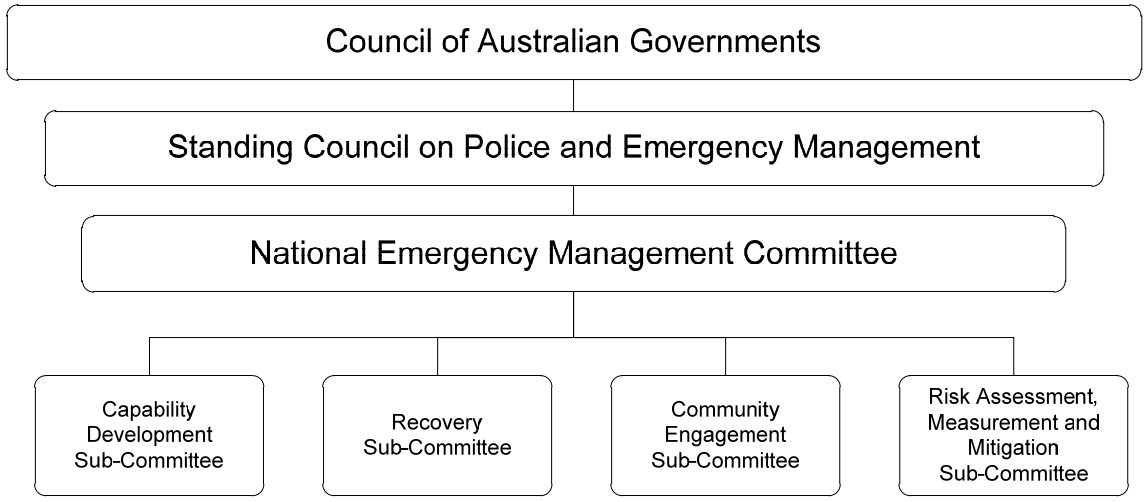
A number of recent natural disasters, including the 2009 Victorian bushfires and the 2010-11 Queensland floods, have highlighted the importance of adopting this resilience based approach.

National forums

The National Emergency Management Committee (NEMC), established by COAG, is Australia's national consultative emergency management forum and works to strengthen the nation's resilience to disasters by providing strategic leadership on nation-wide emergency management policy (figure D.1). The Committee meets at least twice a year, comprising relevant senior officials from the Australian, State and Territory governments, and a representative from the Australian Local Government Association.

The NEMC reports to the Standing Council on Police and Emergency Management and to other standing councils as required. The standing council replaces the former Ministerial Council for Police and Emergency Management, which has been subject (along with all ministerial councils) to a review by COAG. Recognising that many aspects of emergency management require the ability to influence work outside the mandate of emergency management ministers, the NEMC also has a direct reporting line to COAG for matters requiring whole-of-government consideration.

Figure D.1 **National Emergency Management Committee**



The NEMC is supported by four sub-committees:

- the Capability Development Sub-Committee supports strategic nation-wide whole-of-governments emergency management capability initiatives
- the Recovery Sub-Committee develops and promotes comprehensive disaster recovery policy and planning consistent with the National Principles for Disaster Recovery
- the Community Engagement Sub-Committee develops and promotes national community engagement policies and programs, to contribute to the enhancement of community disaster resilience nationally
- the Risk Assessment Measurement and Mitigation Sub-Committee contributes to the management of disaster risk by developing national approaches to risk assessment, measurement and mitigation.

Sector scope

Emergency management is defined as a range of measures to manage risks from emergency events (box D.1) to individuals, communities and the environment (EMA 2004). Emergency management aims to create and strengthen safe, sustainable and resilient communities that can avoid or minimise the effects of emergencies and, at the same time, have the ability to recover quickly and restore their socioeconomic vitality after an emergency event.

The practice of emergency management requires cooperation between Australian, State and Territory, and local governments, industry, community organisations, and the community in general.

Box D.1 **Emergency events**

An emergency event is an event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which requires a significant and coordinated response (EMA 1998). It encompasses:

- natural disaster events — that is, bushfire (landscape fire), earthquake, flood, storm, cyclone, storm surge, landslide, tsunami, meteorite strike, and tornado. This list of natural disaster events is based on the Natural Disaster Relief and Recovery Arrangements Determination 2011 (EMA 2011)
- other natural events — such as drought, frost, heatwave, or epidemic
- disaster events resulting from poor environmental planning, commercial development, or personal intervention
- other emergency events — such as structure fires, medical emergencies and transport, rescues, or consequences of acts of terrorism
- technological and hazardous material incidents — such as chemical spills, harmful gas leaks, radiological contamination, explosions, and spills of petroleum and petroleum products
- quarantine and control of diseases and biological contaminants.

Emergency events can directly affect a mixture of:

- individuals — such as medical emergency events or road crash rescue events
- household/business assets and premises — such as structure fires (houses and other building)
- community, economy and the environment — such as natural disasters and acts of terrorism.

Australian Government

The primary role of the Australian Government is to support the development, by the states and territories, of a national emergency management capability.

Australian Government assistance may take the form of:

- financial assistance for natural disaster relief and recovery. The Natural Disaster Relief and Recovery Arrangements provides for the Australian Government to reimburse State and Territory governments for a proportion of their expenditure on natural disasters (EMA 2011)
- material and technical assistance to states and territories in the event of large scale emergencies

- financial assistance for natural disaster resilience, mitigation and preparedness measures
- support for emergency relief and community recovery and for helping to bear the cost of natural disasters
- funding for risk management programs and undertaking comprehensive risk assessment
- 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 and meteorological and geological hazards; the provision of firefighting services at some airports and some defence installations; human quarantine; and research and development.

State and Territory governments

State and Territory governments are responsible for regulatory arrangements with the objective of protecting life, property and the environment, and they have primary responsibility for delivering emergency services (including fire and ambulance services) directly to the community.

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 mitigation measures and prevention plans to address emergencies such as bushfires and structure fires, floods, storms, landslides and hazardous materials incidents
- improving community preparedness through local emergency and disaster 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 rural fire brigades and/or other voluntary emergency service units.

Profile of the emergency management sector

Emergency service organisations

State and Territory and local governments provide emergency management services to the community through a range of emergency services organisations. The governance and reporting lines of emergency services organisations vary across jurisdictions. These organisations range from government departments to statutory authorities, and to smaller branches, agencies or services within larger departments or authorities (table DA.1). In some instances, non-government organisations also provide emergency management (and other ambulance event) services, such as St John Ambulance in WA and the NT.

In all jurisdictions, there is considerable cooperation and coordination among emergency services organisations in response to emergency events. There can also be substantial cooperative efforts across governments, particularly in the recovery stages after a major incident. 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 operational response to a number of significant emergency events around the Pacific and Indian Ocean rim.

The 'all-hazards all-agencies' approach to emergency management means that there are many organisations involved in different aspects of emergency management. This Report focuses on selected event types in State and Territory jurisdictions, and in particular the roles of:

- *fire service organisations* — work closely with other government departments and agencies (such as State/Territory Emergency Services, police and ambulance services, and community service organisations) to minimise the impact of fire and other emergencies on the community. The fire and non-fire related activities of fire services organisations for each jurisdiction are described in table DA.2
- *State/Territory Emergency Services* — have a major role in each state and territory (except ACT) in attending road crash rescue incidents and performing extrications. State/Territory Emergency Services in various jurisdictions are the lead agency for hazards as diverse as flood, earthquake, tsunami, tropical cyclone and marine search and rescue. State/Territory Emergency Services also provide land search, urban search and rescue, and technical rescue services. The emergency service activities of State/Territory Emergency Services for each jurisdictions are described in table DA.3.

- *Ambulance service organisations* — work within the health system to improve the health of the community by providing emergency and non-emergency patient care and transport, as well as to foster public education in first aid. In emergency situations they are responsible for providing responsive, high quality specialised medical care. This includes working with other emergency services organisations to provide pre-hospital care, rescue, retrieval and patient transport services in a range of emergency events.

This Report contains some information on the scope of emergency services organisations activities, although it does not report on the total range of State, Territory and local government activities. For example, this Report does not include direct information on the performance of Australian Government or local government emergency management services or their agencies.

Descriptive statistics

Detailed profiles for the 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 fire, ambulance and emergency service organisations are presented, by jurisdiction, in chapter 9 and in tables DA.1–DA.5.

Total costs and funding

Total cost data presented in table D.1 reflect the costs of the Australian, State and Territory governments for emergency management services delivered by fire agencies and ambulance services in 2010-11, and recurrent expenditure for State/Territory Emergency Services in 2009-10. More information on government expenditure can be found in chapter 9.

The funding of emergency services organisations varies by service and jurisdiction (chapter 9) but generally occurs via a mix of:

- government grants — provided to emergency services organisations from State and Territory governments
- fire levies — governments usually provide the legislative framework for the imposition of fire 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, donations and miscellaneous revenue (table D.1).

Table D.1 **Emergency management sector, descriptive statistics, Australia, 2010-11**[a, b, c]

	FSOs	*ASOs*	*S/TES*
Financial year	2010-11	2010-11	2009-10
Total costs ($m)	3 158.3	2 060.3	123.2
Source of organisation revenue			
Government grants and indirect government funding (%)	32.5	68.1	na
Fees/charges (%)	4.1	23.2	na
Levies (%)	60.5	..	na
Other (%)	2.9	8.7	na

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

[a] Data may not be comparable across service areas and comparisons could be misleading. Chapter 9 provides further information. [b] For 2010‑11 SA ambulance financial and workforce data are not available for inclusion in these national totals due to reporting system issues, which will be rectified for the 2013 Report. [c] Data for STES are for budgeted expenditure in 2009-10. The figures provided for WA include total costs of services for the SES, Fire & Rescue Services, Bush Fire Services and Volunteer Marine Rescue Services. na Not available. .. Not applicable.

Source: State and Territory governments; table 9A.2, 9A.24, 9A.29, 9A.40 and DA.4.

Volunteers in emergency management

In 2010-11, approximately 250 000 fire, ambulance and State/Territory Emergency Services volunteers played a significant role in the provision of emergency services in Australia (table D.2).

The input by volunteers is particularly important in rural and remote service provision where caseload/incident levels are low, compared with urban areas, but community safety needs are as high a priority.

Volunteers in many emergency services organisations (including fire, ambulance, State/Territory Emergency Services, marine rescue, and recovery and relief agencies) provide services relating to emergency situations and disasters resulting from natural hazards such as bushfires, floods, severe storms, earthquakes, cyclones, and human caused and technological events as well as medical emergencies.

Table D.2 **Volunteers in emergency service organisations, 2010-11[a, b, c, d, e, f, g]**

	NSW[c]	*Vic*[d]	*Qld*[e]	*WA*[f]	*SA*	*Tas*	*ACT*	*NT*[g]	*Aust*
FSOs	77 410	58 063	34 000	28 922	14 583	4 777	1 233	777	219 765
ASOs	326	460	132	3 169	1 309	457	–	–	5 853
S/TES	10 828	5 171	7 000	1 994	1 701	615	240	377	27 926
Total	**88 564**	**63 694**	**41 132**	**34 085**	**17 593**	**5 849**	**1 473**	**1 154**	**253 544**

ASO = ambulance service organisation. FSO = fire service organisation. S/TES = State and Territory emergency services. [a] Numbers for FSOs include volunteer support staff plus part paid volunteers for all jurisdictions except WA and the ACT. [b] Jurisdictions totals are a count of volunteers. People who volunteer in more than one emergency service organisation may be double counted. [c] NSW: Numbers for FSOs include retained firefighters and community fire unit members. [d] Vic: ASOs data include some volunteers who were remunerated for some time (usually response), but not for other time (usually on-call). [e] Qld. Volunteer numbers may fluctuate as members leave the service, new members are recruited and data cleansing occurs. [f] WA: SES data exclude volunteer emergency service members who also may undertake an SES role. WA: Support staff data include all non-fire specific staff, including those that support SES and volunteer marine rescue. Volunteer firefighter data include volunteers from local government bush fire brigades, volunteer fire and rescue brigades, volunteer fire services and multi-skilled volunteer emergency services. Data for the Department of Environment and Conservation are not included. [g] NT: Transient people in the NT result in fluctuations in the numbers of volunteers. – Nil or rounded to zero.

Source: State and Territory governments (unpublished); chapter 9; table DA.5.

Information on the estimated value of volunteers to State/Territory Emergency Services is outlined in box D.2.

Although volunteers make a valuable contribution, they are not a free resource to governments. Governments incur costs in supporting volunteers to deliver emergency services in their communities, by providing funds and support through infrastructure, training, uniforms, personal protective equipment, operational equipment and support for other operating costs.

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

State/Territory Emergency Services are dedicated to helping communities prepare for and respond to unexpected events, and play a vital role in emergency management in all states and territories. 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:

- the global substitution method, where an average wage rate is used to value all activities
- the task specific substitution method, where 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 worth 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 benefits that may arise through volunteerism as explained through social capital theory were not valued, the study clearly shows the significant value volunteers provide to their communities.

Source: Ganewatta, G. and Handmer, J. (2007).

Social and economic factors affecting demand for services

Australian communities are varied in their composition and in their level of exposure to disaster risk. Factors that can influence disaster resilience include remoteness, 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.

Many known factors are increasing our 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 two ways (Victorian Bushfires Commission 2010):

- the personal resources available to individuals and households to prepare for and protect themselves in an emergency event
- levels of direct participation by individual community members in volunteer emergency service organisations.

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 (SEIFA)) are 3.6 (Australia) and 2.6 (South Australia) 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 also been experienced across Australian regional centres, coastal areas, rural areas around major cities, alpine areas and along inland river systems (Victorian Bushfires Commission 2010). Such areas are both more susceptible to emergency events and require greater resources to respond to an emergency. Pressures for urban development to extend into areas of higher risk from natural disasters compounds the problem, as does the expectation that the same services and facilities will be available wherever people choose to live.

The communities' capacity to respond to emergency events does not necessarily increase at the same rate as its population growth. This is particularly because people who first move to rural and regional areas typically have little or no awareness/experience of how to prepare and respond to emergency events. In more remote mining communities the impact of 'fly-in-fly-out' workforces affect the availability of a volunteer workforce where volunteering rates are generally lower.

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 and/or responding to a community wide emergency (such as for a natural disaster).

The size, severity, timing, location and impacts of disasters are difficult to predict. Scientific modelling suggests that climate change will likely result in an increased frequency and severity of extreme weather events. Rising sea levels are increasing the likelihood of coastal erosion and severe inundation (COAG 2009).

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 summary 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).

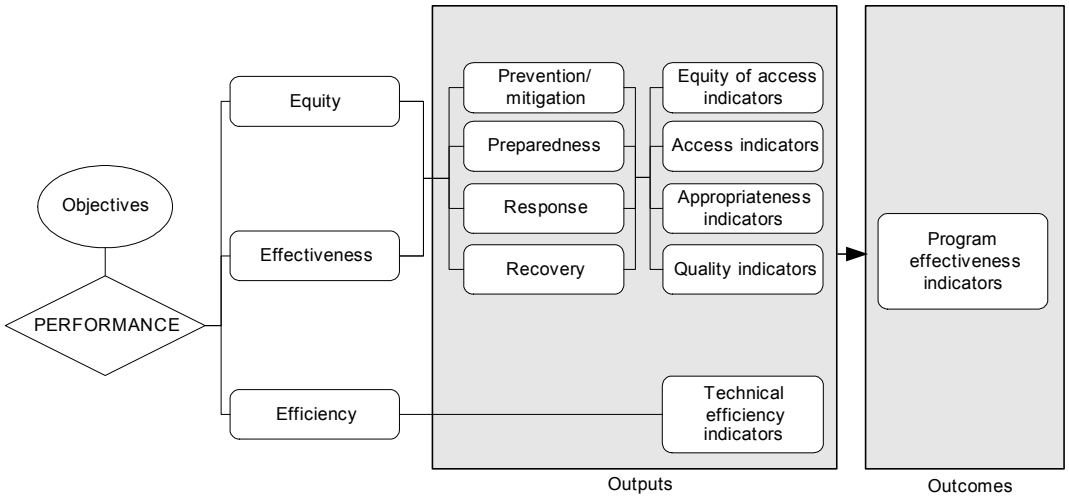
Box D.3 Objectives for emergency management

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.

Emergency service organisations aim to reduce the number of emergency events through prevention activities, and to reduce the impact of emergency events through community and operational preparedness. Fast, effective response and recovery services are critical to containing hazards and managing the consequences of emergency events. To reflect these activities, performance reporting in this sector summary and in chapter 9 (for fire and road crash rescue events) reflects the prevention/mitigation, preparedness, response and recovery framework (figure D.2).

Figure D.2 The prevention/mitigation, preparedness, response and recovery framework for emergency management



The framework uses the widely accepted 'comprehensive approach' to classify the key functions common to emergency services organisations in managing emergency events. Outputs in the emergency event frameworks are grouped accordingly.

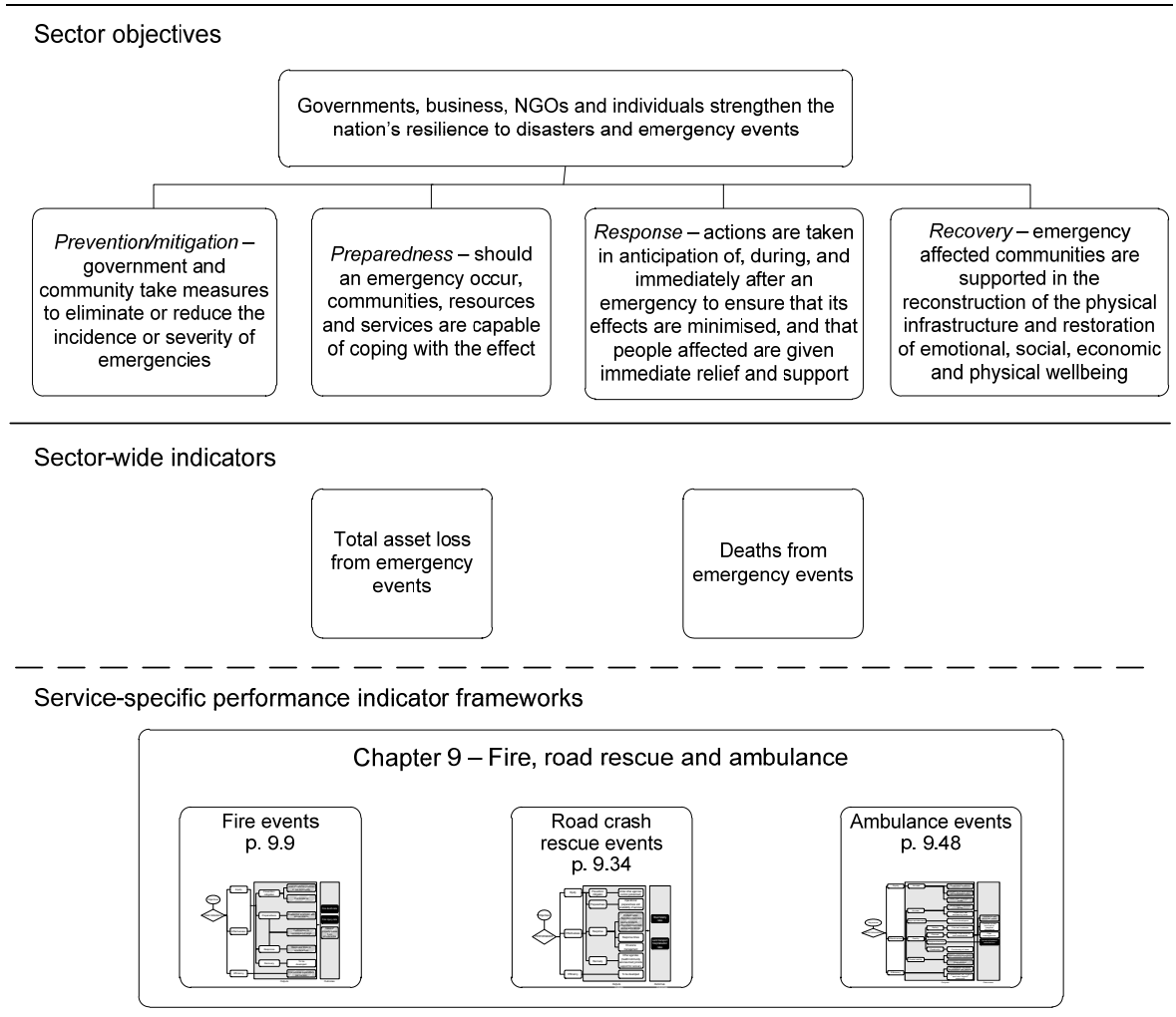
- *Prevention/mitigation* — the results of measures taken in advance of an emergency aimed at decreasing or eliminating its impact on the community and the environment. Activities that contribute to prevention and mitigation include: advice on land management practice and planning; the inspection of 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. Activities that contribute to community recovery include: the restoration of essential services; counselling programs; temporary housing; long term medical care; 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 summary is based on a sector performance indicator framework (figure D.3). 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.

Figure D.3 **Emergency management sector performance indicator framework**



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

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 objective of governments to reduce the adverse consequences of emergency events on community assets through its prevention/mitigation, preparedness, and response measures (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 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. 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.

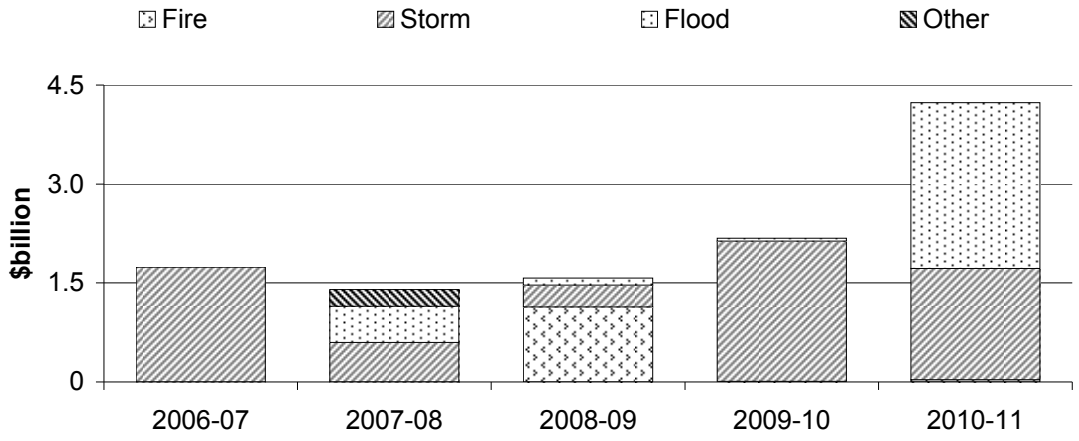
Data reported for this indicator are comparable and complete.

Source: Insurance Council of Australia (2011); Australian Government (2011a).

Nationally, the insured asset loss from emergency events was $4.2 billion in 2010-11. Other than in 2008-09 — the year of the Victorian bushfires (chapter 9) — insured asset losses are generally related to flood and storm damage (figure D.4). In

2010-11, the Queensland flood emergency caused extensive damage in south-east Queensland, resulting in an estimated $2.4 billion in insured asset losses (box D.5).

Figure D.4 **Total asset loss from emergency events (2010-11 dollars)[a, b]**



a Costs not currently 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. **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. – Nil or rounded to zero.

Source: Insurance Council of Australia 2011, *Historical & current disaster statistics*, www.insurancecouncil.com.au/Default.aspx?tabid=1572 (accessed 10 October 2011); Australian Government 2011, *Attorney-General's Department Disasters Database*, www.disasters.ema.gov.au/ (accessed 10 October 2011); table DA.6.

Box D.5 **Queensland floods**

Prolonged and intensive rainfall over large areas of Queensland, coupled with already saturated catchments led to significant flooding in Queensland in December 2010 and January 2011. Thirty-five people lost their lives, and thousands more suffered destruction and despair. More than 78 per cent of the State (an area bigger than NSW and Victoria combined) was declared a disaster zone, with over 2.5 million people affected. Some 29 000 homes and businesses suffered some form of inundation.

The Queensland Government established the Queensland Reconstruction Authority in 2011 to develop, implement and manage a state-wide plan for rebuilding and reconnecting affected communities. The Queensland Reconstruction Authority has estimated that the total cost of flooding events alone will be in excess of $5 billion. (The Insurance Council of Australia (2011) reports insured asset losses of $2.4 billion.)

Continued next page

Box D.5 **(Continued)**

On 17 January 2011, the Queensland Government established the Commission of Inquiry into the 2010-11 flood events. The Commission delivered its Interim Report on 1 August 2011 and examines a range issues relating to flood preparedness (Queensland Floods Commission of Inquiry 2011). The report makes 175 recommendations focused on changes which can be implemented prior to Queensland's next summer wet season.

The final report is due to be provided to the Queensland Government by 24 February 2012, and will examine a range of issues in the Inquiry's terms of reference, with a particular focus on insurance and land planning.

Source: Insurance Council of Australia (2011); Queensland Government (unpublished).

Deaths from emergency events

'Deaths from emergency events' is an indicator of governments' objective to reduce the risk of loss of life in the event of an emergency event, or by preventing an emergency event, through prevention/mitigation, preparedness, and response measures (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:

- transport deaths — deaths primarily caused by accidents involving 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.

Additional information related to deaths from fire events and road rescue events are available in the Ambulance, fire and road rescues chapter (chapter 9).

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

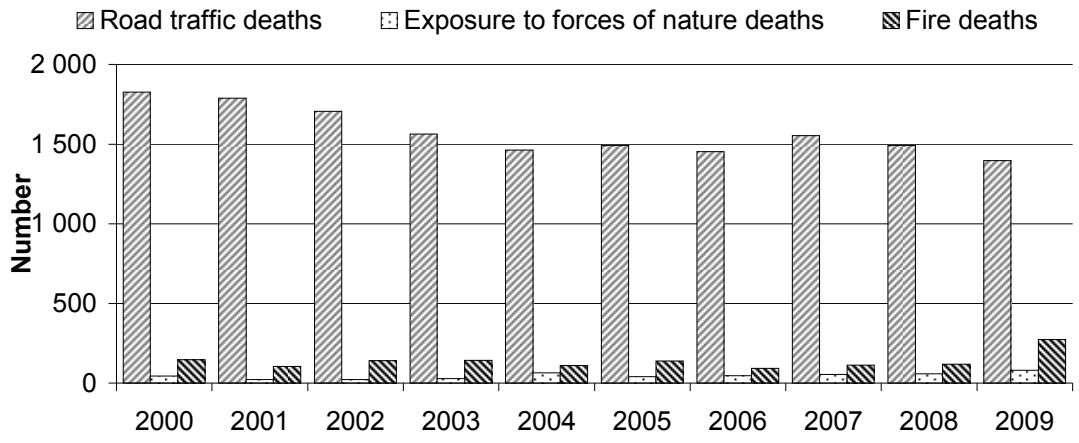
Data for this indicator are comparable.

Data quality information for this indicator is under development.

Transport deaths

Nationally, most deaths from emergency events covered in this Report are related to road traffic incidents, the number of which have been declining (figure D.5).

Figure D.5 **Deaths from emergency events**[a, b, c]



[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. Exposure to forces of nature includes ICD codes X30-X39. Fire deaths include ICD fire death codes X00-X09 plus X76, X97 and Y26. [b] The small number of fire and exposure to forces of nature deaths means it is difficult to establish patterns and provide detailed analysis. [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. 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 9 provides more recent data sourced by the Australian Road Deaths Database (Australian Government 2011a) as reported by the police each month to the State and Territory road safety authorities.

Source: ABS (various years) *Causes of Death, Australia*, Cat. no. 3303.0 (unpublished); table DA.7.

Fire deaths

The number of fire deaths can vary from year to year, often impacted by large bushfires. In 2009 there was a large increase in the number of fire deaths, primarily related to the 2009 Victorian bushfires (chapter 9).

Deaths from exposure to forces of nature

Relatively few deaths are primarily caused by exposure to forces of nature (although the impact of floods and storms can have a considerable impact on the community by way of asset loss as discussed above).

The most number of deaths in this category were from exposure to excessive natural heat, which accounted for 31 deaths in 2009 (63 per cent of deaths in this category) (ABS 2011). Extreme heatwaves occurred in southern Australia in the summers of 2008 and 2009. Research indicates that intense and long heatwaves can exceed the capacity of some sections of the community to cope. For example, in 2008 and 2009 the total SA Ambulance Service daily call-outs during heatwaves increased by 10 per cent and 16 per cent when compared to previous heatwaves (Nitschke et al. 2011).

Service-specific performance indicator frameworks

This section summarises information from the 'fire events', 'road crash rescue 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.7).

Box D.7 Reporting on all-hazards

Increasingly the sector adopts an 'all-hazards all-agencies' approach to managing emergency risks. Chapter 9 specifically reports on 'fire events'; 'road crash rescue events'; and 'ambulance events' (pre-hospital care, treatment and transport).

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 (floods, cyclones, acts of terrorism and so on) and do not lend themselves to annual, comparative reporting. Resource constraints and data availability also restricts more detailed analysis.

Jurisdictions often hold inquiries to review and compare government performance following significant emergency events. Recent reports include inquiries from Victoria and WA into fires and Queensland into floods (Victorian Bushfires Commission 2010, Keelty 2011, Queensland Floods Commission of Inquiry 2011).

Source: Chapter 9.

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)

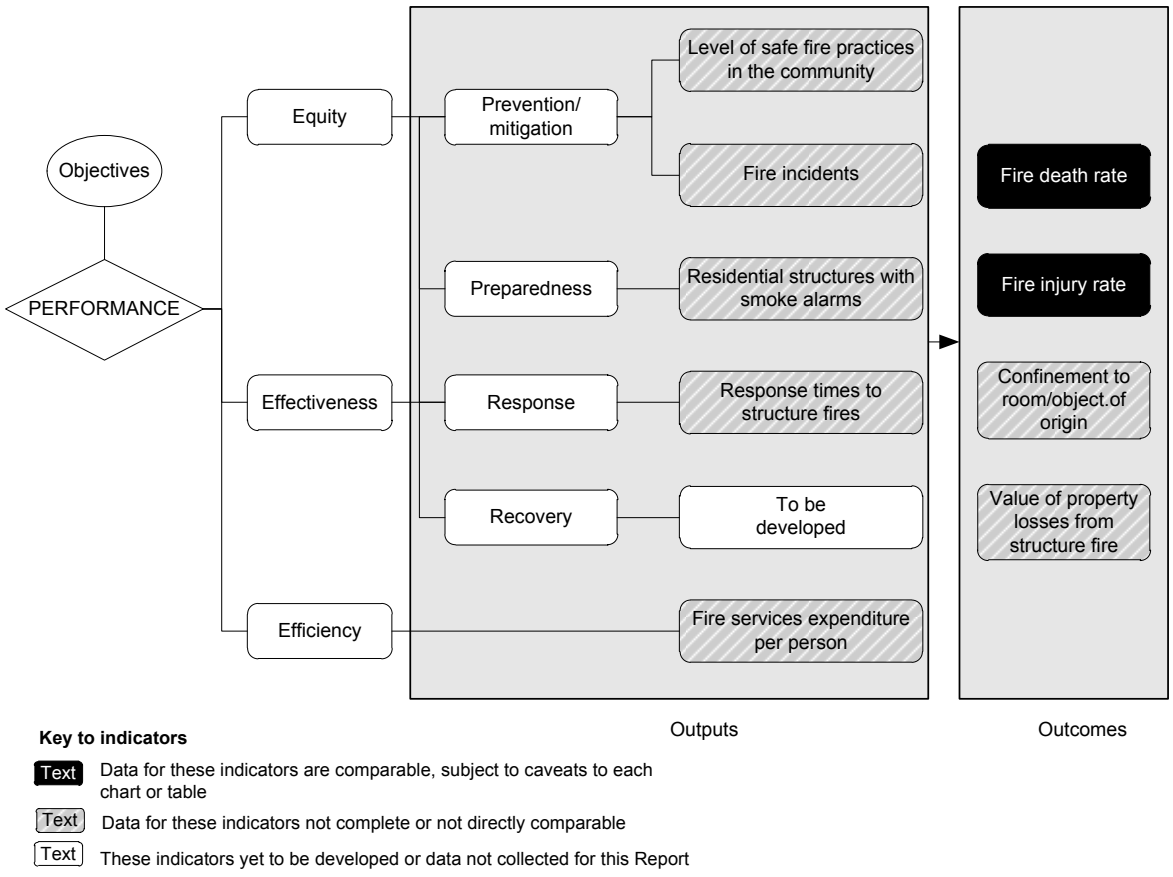
- data quality information for many indicators, based on the ABS Data Quality Framework (chapter 9 Data quality information).

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.6. This framework provides comprehensive information on the equity, effectiveness, efficiency and the outcomes of fire events.

Figure D.6 **Fire events performance indicator framework**



An overview of the fire events indicator results for 2010-11 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 fire events**[a, b]

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Equity and effectiveness — prevention/mitigation indicators										
Level of safe fire practices in the community, October 2007										
Data for this indicator not complete or not directly 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.20
Number of fire incidents, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
Fire incidents attended by fire service organisations per 100 000 people										
no.	467	318	303	512	398	718	249	803	402	9A.14
Equity and effectiveness — preparedness										
Proportion of residential structures with smoke alarms, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
%	94.2	97.2	86.6	90.0	na	na	na	na	na	9A.19
Equity and effectiveness — response										
State-wide response times to structure fires, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
Including call processing time, 90th percentile										
minutes	14.0	14.8	12.2	14.6	na	16.9	10.7	15.0	na	9A.21
Excluding call processing time, 90th percentile										
minutes	12.6	9.6	11.1	13.0	13.0	15.4	9.1	11.1	na	9A.21
Efficiency indicators										
Fire service organisations' expenditure per person, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
$	125.47	192.55	107.46	140.43	110.54	128.22	188.57	175.52	140.52	9A.25
Outcome indicators										
Fire death rate, per million people, 2009										
Data for this indicator are comparable, subject to caveats (chapter 9)										
no.	4.5	36.2	3.4	3.6	7.4	11.9	11.4	4.4	12.4	9A.7
Fire injury rate, per 100 000 people, 2009-10										
Data for this indicator are comparable, subject to caveats (chapter 9)										
no.	12.3	13.3	17.1	16.2	20.0	17.4	4.8	89.6	15.3	9A.9
Confinement to room/object of origin, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
Confinement of building fires to room of origin, all ignition types										
%	69.7	75.6	72.3	65.0	67.0	59.2	75.9	75.5	na	9A.10
Confinement of building and other structure fires to room/object of origin, all ignition types										
%	82.0	83.6	87.6	76.3	73.0	85.3	77.1	86.9	na	9A.11
Value of property losses from structure fire — Median dollar loss from structure fire, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
$	2 000	3 000	2 000	3 750	10 000	2 000	1 000	1 000	na	9A.12

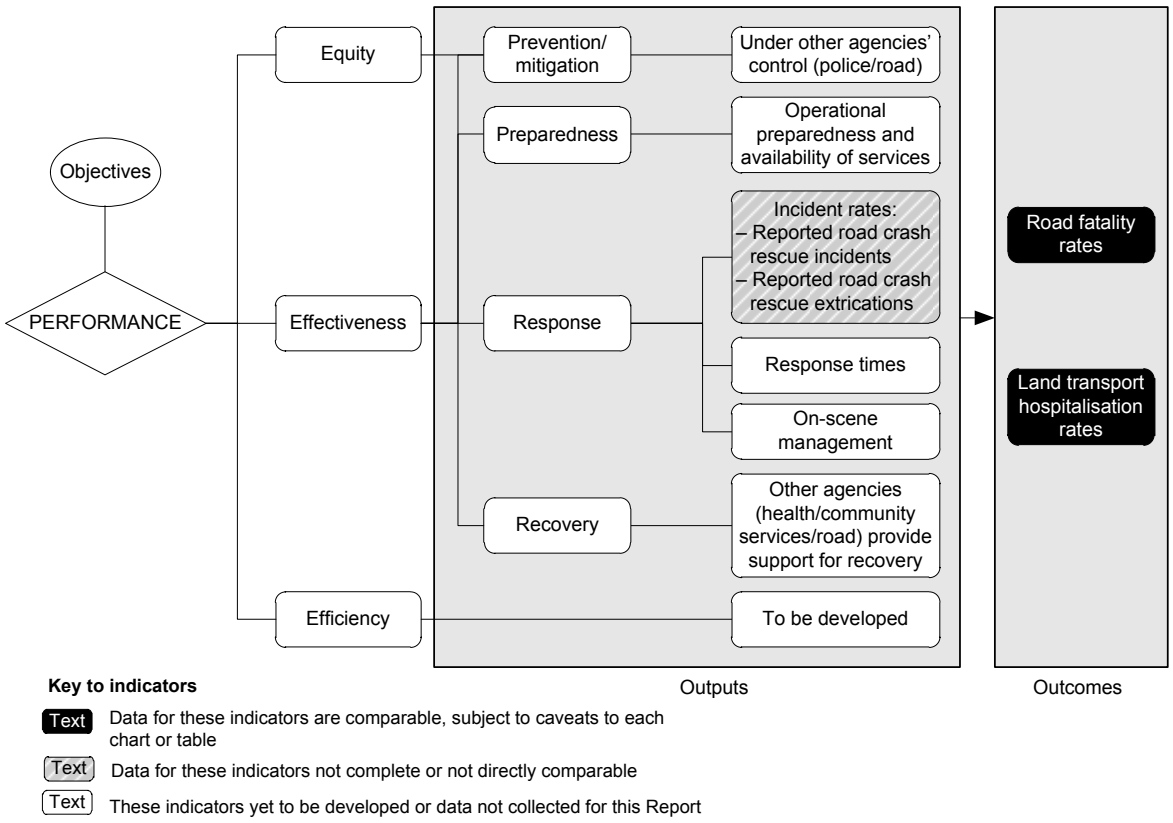
a Caveats for these data are available in chapter 9 and attachment 9A. Refer to the indicator interpretation boxes in chapter 9 for information to assist with the interpretation of data presented in this table. **b** Some data are derived from detailed data in chapter 9 and attachment 9A. **na** Not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

Source: Chapter 9 and attachment 9A.

Road rescue events

The performance indicator framework for road crash rescue events is presented in figure D.7. This framework provides comprehensive information on the equity, effectiveness, efficiency and the outcomes of road crash rescue events.

Figure D.7 **Road crash rescue events performance indicator framework**



An overview of the road crash rescue events indicator results for 2010-11 is presented in table D.4. 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.4 **Performance indicators for road crash rescue events**[a]

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Incident rates, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
Reported road crash rescue incidents, per 100 000 people										
no.	72.2	38.6	99.9	90.8	401.9	97.0	174.1	144.4	98.5	9A.27
Reported road crash rescue extrications, per 100 000 registered vehicles										
no.	85.9	60.0	37.9	28.6	46.7	39.6	100.8	89.0	58.6	9A.28
Road fatality rate, per 100 000 registered vehicles, 2010-11										
Data for this indicator are comparable, subject to caveats (chapter 6)										
no.	9.3	7.0	7.6	9.9	9.5	7.6	8.1	30.6	8.6	6A.36
Number of land transport hospitalisation, per 100 000 registered vehicles, 2009-10										
Data for this indicator are comparable, subject to caveats (chapter 6)										
no.	261	229	223	214	257	155	356	490	240	6A.37

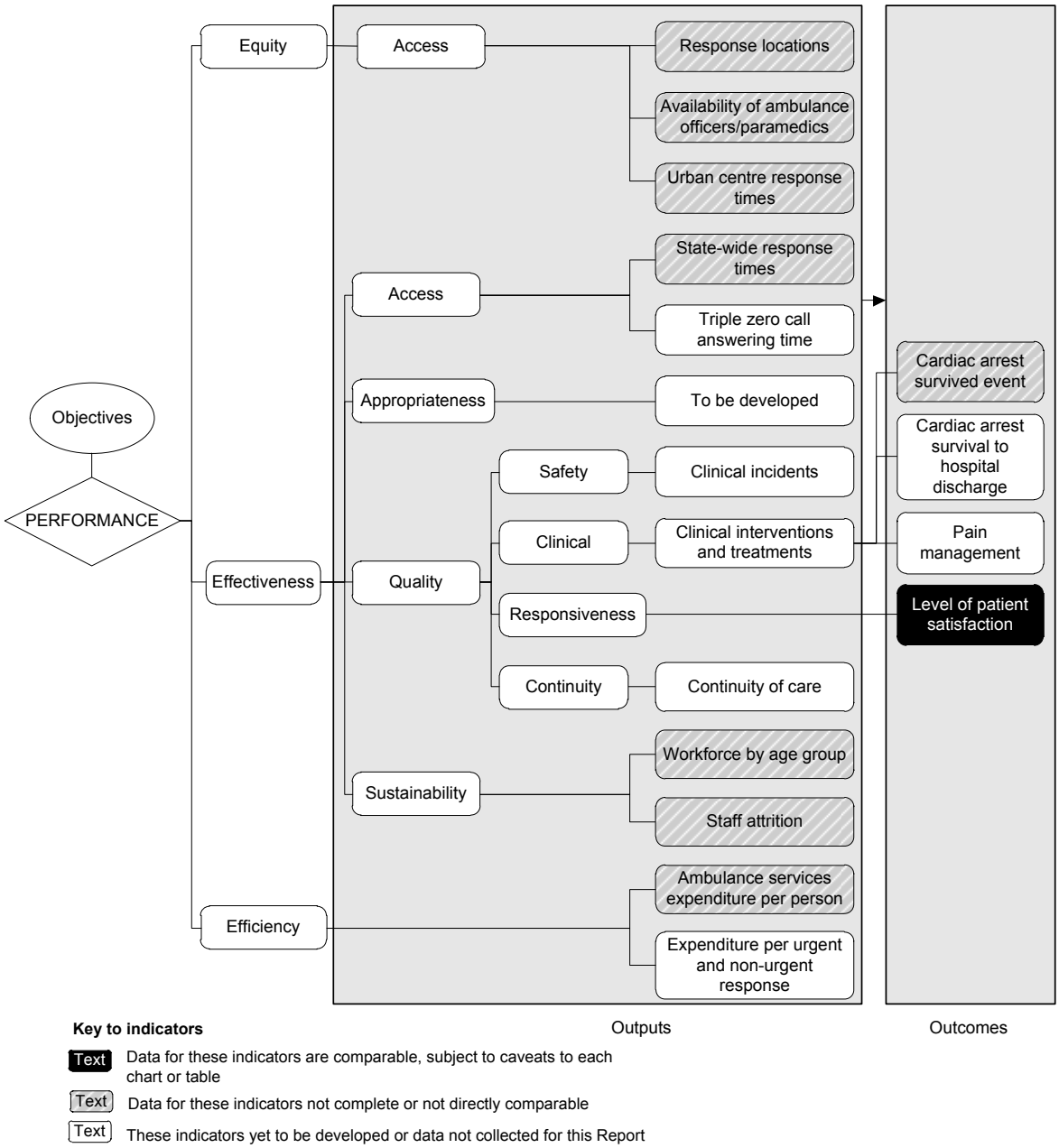
[a] Caveats for these data are available in chapter 9 and attachment 9A and chapter 6 and attachment 6A. Refer to the indicator interpretation boxes in chapter 9 for information to assist with the interpretation of data presented in this table.

Source: Chapter 9 and attachment 9A and chapter 6 and attachment 6A.

Ambulance events

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

Figure D.8 **Ambulance events performance indicator framework**



An overview of the ambulance events indicator results for 2010-11 is presented in table D.5. Information to assist the interpretation of these data can be found in the indicator interpretation boxes in chapters 6 and 9 and the footnotes in attachment 9A.

Table D.5 **Performance indicators for ambulance events**[a, b]

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Equity — Access indicators										
Response locations, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
Number of paid, mixed and volunteer locations per 100 000 people										
no.	3.7	4.2	5.8	8.3	6.7	9.6	1.9	3.9	5.0	9A.35
Availability of ambulance officers/paramedics, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
Number of full time equivalent ambulance officers/paramedics per 100 000 people										
no.	42.7	44.1	57.1	24.1	na	44.2	34.0	41.3	40.8	9A.32
Capital city centre response times, 90th percentile , 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
minutes	19.1	17.2	15.1	15.9	14.5	17.6	15.8	16.9	na	9A.39
Effectiveness — Access indicators										
State-wide response times, 90th percentile, 2010-11										
minutes	21.7	21.0	16.7	18.8	16.4	23.2	15.6	23.9	na	9A.39
Effectiveness — Sustainability indicators										
Workforce by age group — Operational workforce under 50 years of age, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
%	79.6	77.0	80.8	85.1	na	75.2	85.0	92.5	79.8	9A.33
Staff attrition, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
%	5.0	5.2	2.9	6.0	na	2.2	4.6	na	4.5	9A.33
Efficiency indicators										
Ambulance service expenditure per person, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
$	95.48	102.82	119.39	60.38	na	107.04	91.19	91.31	91.65	9A.41
Outcome indicators										
Cardiac arrest survived event, 2010-11										
Data for this indicator not complete or not directly comparable (chapter 9)										
Adult cardiac arrest survived event rate — where resuscitation attempted (excluding paramedic witnessed)										
%	na	32.7	21.1	14.3	25.3	31.8	25.0	na	na	9A.37
Level of patient satisfaction — overall satisfaction rate, 2011										
Data for this indicator are comparable, subject to caveats (chapter 9)										
%	98.0 ±1.1	98.0 ±0.9	98.0 ±1.4	98.0 ±1.4	98.0 ±1.0	98.0 ±1.0	96.0 ±1.9	98.0 ±1.9	98.0 ±0.4	9A.38

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 — 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) also have a critical role in implementing many of 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, the Australian Defence Force have been called upon to assist local emergency services organisations in responding to emergency events such as for the 2011 Queensland floods (Queensland Floods Commission of Inquiry 2011).

Emergency management policies need also to consider how government services cut across populations and communities with special needs. Recently the Standing Council on Police and Emergency Management reiterated that the cross-cutting issues of Indigenous disadvantage, access to services, gender equality, and inclusion for people with disability, as well as the specific needs of regional Australia need to be taken into account in implementing the *National Strategy for Disaster Resilience* (ANZPEM 2011). The National Emergency Management Committee will keep cross-cutting issues under regular review.

The development of the National Emergency Management Strategy for Remote Indigenous Communities was initiated by the Australian Emergency Management Committee in 2004. The completed 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 summary 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 a risk register, that assesses the likelihood and potential impacts to each jurisdiction of particular emergency events
- development of the disasters database to provide more information on the costs of disasters beyond insured asset losses compiled by the Insurance Council of Australia
- a review of effectiveness of Australian, State and Territory government relief and recovery payments by the end of 2011
- 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, road rescue and ambulance 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 summary by a 'DA' prefix (for example, table DA.1). A full list of attachment tables is provided at the end of this sector summary, and the attachment tables are available from the Review website at www.pc.gov.au/gsp.

D.6 References

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DA Emergency management — attachment

Unsourced 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 in Adobe PDF format on the Review web page (www.pc.gov.au/gsp).

Attachment contents

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

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (b), (c)
Fires	NSW Fire Brigades	Melbourne Fire and Emergency Services Board	Qld Fire and Rescue Service	FESA Operations Division	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	Local governments	Metropolitan Fire Service	Forestry Tasmania	ACT Fire Brigade	Bushfires NT	Defence
	NSW Police Force	Department of Sustainability and Environment	Department of Environment and Resource Management	Department of Environment and Conservation		Parks and Wildlife	ACT Rural Fire Service Canberra Urban Parks and Places	Aviation Rescue and Fire Fighting Authority	Emergency Management Australia
	Ambulance Service of NSW	Parks Victoria	Qld Parks and Wildlife Service	Forest Products Commission			Territory and Municipal Services Directorate	Parks and Wildlife	Bureau of Meteorology
	Department of Environment and Climate Change NSW	Airport Rescue and Firefighting Service	Local government	FESA Operations Division (support)					Australian Building Codes Board
		Gas distribution companies	Qld Ambulance Service	WA Police Service					Department of Transport and Regional Services
			Emergency Management Qld Helicopter Rescue	Department for Child Protection					
Medical transport and emergencies	Ambulance Service of NSW	Ambulance Victoria	Qld Ambulance Service	St John Ambulance	SA Ambulance Service	Ambulance Tasmania Service	ACT Emergency Services Agency	St John Ambulance	
	NSW Health	Melbourne Fire and Emergency Services Board	Emergency Management Qld Helicopter Rescue	FESA operations Division			ACT Ambulance Service	Royal Flying Doctor Service	
	Helicopter Rescue Services (under ambulance control)		Qld Health	Royal Flying Doctor Service				Territory Health Service	
			Royal Flying Doctor Service						
			Community Helicopters						

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

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (b), (c)
Road crash rescues	NSW Fire Brigades	Melbourne Fire and Emergency Services Board	Qld Fire and Rescue Service	WA Police Service	State Emergency Service	Tasmania Police		NT Fire and Rescue Service	
	NSW Police Force	Country Fire Authority	Qld SES	FESA Operations Division	Metropolitan Fire Service	State Emergency Service	ACT Fire Brigade	NT Emergency Services	
	Ambulance Service of NSW	Victoria SES	Qld Ambulance Service		Country Fire Service				
	NSW SES		Qld Police Service						
	Volunteer Rescue Association								
Rescues (other)	NSW Fire Brigades	Melbourne Fire and Emergency Services Board	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	FESA Operations Division	Metropolitan Fire Service	State Emergency Service	ACT Fire Brigade	NT Emergency Services	Defence
	Ambulance Service of NSW	Victoria SES	Qld Ambulance Service	FESA Operations Division (support)	Country Fire Service	Tasmania Fire Service	Australian Federal Police	NT Police	Australian Customs Service
	NSW SES	Victoria Police	Qld Police Service	FESA Volunteer Marine Rescue Services	SA Police	Ambulance Tasmania Service	ACT State Emergency Service		
	Volunteer Rescue Association	Ambulance Victoria	Emergency Management Qld Helicopter Rescue	St John Ambulance	SA Ambulance Service				
	Mines Rescue Service	Volunteer Groups	Volunteer Marine Rescue Association Qld	Rescue Helicopter Service	State Rescue Helicopter Service				
	Royal Volunteer Coastal Patrol	Municipal councils	Australian Volunteer Coast Guard Association	Surf Lifesaving Association of WA	Surf Life Saving Association of SA				
	Australian Volunteer Coast Guard Association	Building Control Commissioner	Royal Life Saving Association of Queensland						

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

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (b), (c)
Natural events	State Emergency Service	Victoria State Emergency Service	Local government	FESA Operations Division	SDP Functional Services	State Emergency Service	ACT Emergency Services Agency	NT Emergency Service	Emergency Management Australia
	NSW Police Force	Victoria Police	Qld SES	FESA Operations Division (support)		Department of Police and Public Safety	Australian Federal Police ACT Fire Brigade	NT Police	Department of Transport and Regional Services
	NSW Fire Brigades	Melbourne Fire and Emergency Services Board	Qld Fire and Rescue Service	WA Police Service		Tasmania Fire Service	ACT Emergency Service	NT Fire and Rescue Service	Geoscience Australia
	Ambulance Service of NSW	Country Fire Authority	Qld Police Service	Department for Child Protection		Ambulance Tasmania Service	Department of Urban Service	Parks and Wildlife	Bureau of Meteorology
	Volunteer Rescue Association	Municipal councils	Qld Ambulance Service	Department of Mineral and Petroleum Resources		Local government authorities	ACT Ambulance Service	Local Councils	Defence
	Department of Commerce	Volunteer groups	Department of the Environment and Resource Management	Department of Agriculture		Department of Health and Human Services	ACT Rural Fire Service		Australian Building Codes Board
	Department of Primary Industry		Department of Communities	Department of Health		Department of Primary Industries, Water and Environment			
	Department of Environment and Climate Change NSW			Local governments					
	Ministry of Transport			Water Corporation					
	Department of Premier and Cabinet			Department for Planning and Infrastructure					
	NSW Treasury								
	Department of Community Services								

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

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (b), (c)
Natural events (continued)	Mines Rescue Service								
	NSW Health								
	Red Cross								
	St. Vincent De Paul								
	Seventh Day Adventist								
	Salvation Army								
	Local government authorities								
	NSW Rural Fire Service								
Technological and hazardous material incidents	NSW Fire Brigades	Melbourne Fire and Emergency Services Board	Qld Fire and Rescue Service	FESA Operations Division	SDP Functional Services	DPIWE (Environmental and Pollution Control)	ACT Fire Brigade	NT Fire and Rescue Service	Australian Maritime Safety Authority
	NSW Rural Fire Service	Country Fire Authority	Hazardous Industries and Chemicals Branch	WA Police Service	SA Ambulance Service		Australian Federal Police	NT Police	Department of Transport and Regional Services
	Department of Environment and Climate Change NSW	Victoria Police	Department of Transport and Main Roads	Industry Emergency Response Groups		SES	Environment Protection Authority	Territory Health Service	Emergency Management Australia
	NSW Police Force	Ambulance Victoria	Qld Health	Department of Industry and Resources		Local government	Health Directorate	St John Ambulance	Airservices Australia
	Ambulance Service of NSW	Department of Human Services	Qld Ambulance Service	St John Ambulance		Department of Police and Public Safety		MBT	Civil Aviation Safety Authority
	NSW Health	Vic Workcover Authority	Qld Police Service	Department of Environment and Conservation		Tasmania Fire Service		NT TES	Australian Transport Safety Bureau
	National Oil Spill Committee	Environmental Protection Authority		Department of Health		Tasmania SES		Work Health Authority	Defence

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

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (b), (c)
Technological and hazardous material incidents (continued)	Port Corporations	Marine Board		Water Corporation		Ambulance Tasmania Service			
	Oil Companies	(Vic Channels, Local Ports Operators)		Alinta Gas		Department of Primary Industries, Water and Environment			
	Department of Environment and Climate Change NSW	Department of Sustainability and Environment		Port Authorities		Department of Health and Human Services			
		Parks Victoria		Department of Planning and Infrastructure		Department of Infrastructure, Energy and Resources			
						Local government authorities			
Quarantine and disease control	NSW Health	Department of Sustainability and Environment	Department of Employment, Economic Development and Innovation	Department of Health	SDP Functional Services	Department of Primary Industries, Water and Environment (Quarantine)	Health Directorate	NT Emergency Service	Department of Health and Aging
	Department of Primary Industry	(Water Agencies and Agriculture)	Department of Environment and Resource Management	Department of Agriculture		Department of Health and Human Services	Environment ACT	Territory Health Service	Australian Quarantine and Inspection Service
	Water Authorities	Municipal councils	Qld Health	Water Corporation			ACT Electricity and Water	NT Police	Australian Customs Service
	NSW Police Force	Department of Human Services (Public Health)	Department of Community Safety					Transport and Works Department	Emergency Management Australia
	Department of Environment and Climate Change NSW		Department of Transport and Main Roads	FESA Operations Division				Department Primary Industry and Fisheries	Agriculture, Fisheries and Forestry Australia
	NSW Fire Brigades		Local government						Department of Foreign Affairs and Trade

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

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (b), (c)
Emergency relief and recovery	State Emergency Management Committee	Municipal councils	Department of Community Safety	Department of Child Protection	SDP Functional Services	Department of Health and Human Services (Community and Rural Health)	ACT Emergency Services Agency	NT TES	Department Family and Community Services
	NSW Police Force	Department of Human Services (Public Health)	Department of Communities	Utility agencies		Salvation Army	Community Services Directorate	Territory Health Services	Centrelink
	Department of Commerce	Church/charitable organisations	Local government	Department of Health		Department of Infrastructure Energy and Resources	Territory and Municipal Services Directorate	Government departments	Department Transport and Regional Services
	Department of Community Services	Victoria SES	Qld SES	Department of Premier and Cabinet		Local government	ACT State Emergency Service	Charity organisations	Emergency Management Australia
	Department of Premier and Cabinet	Victoria Police	Qld Health	Local governments		Tasmania SES		Red Cross	
	NSW Treasury			Insurance Council of Australia					
	NSW Health	Department of Sustainability and Environment (Agriculture)		FESA Operations Division (support)					
	Department of Primary Industry	Vic Roads		Department of Treasury and Finance					
	Red Cross St. Vincent De Paul	Utility companies		Department Agriculture					
	Department of Transport			Department of Environment and Conservation, Catchment and Water Protection					
	Department of Education								

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

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (b), (c)
Emergency relief and recovery (continued)	Community Relations Commission Salvation Army Seventh Day Adventist Local government authorities			Department Mineral and Petroleum Resources Department Planning and Infrastructure					

(a) 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).

(b) 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 S/TES volunteers is managed by the Australian Council of SES (ACSES).

(c) The Australian Government administrative arrangements referred to in this table reflect the arrangements in place as at November 2009.

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

Table DA.2 **All activities of fire service organisations**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*
Fire prevention								
Advice on rural land management	✓	✓	✓	✓	✓	✓	✓	✓
Preparation of risk assessment and emergency plans	✓	✓	✓	✓	✓	✓	✓	✓
Inspection of property and building for fire hazards and fire standards compliance	✓	✓	✓	✓	✓	✓	✓	✓
Inspection of storage and handling	✓	✓	✓	✓	✓	✓	×	✓
Other	✓	✓	✓	✓	✓	✓	✓	✓
Fire preparedness								
Preparation of response plans	✓	✓	✓	✓	✓	✓	✓	✓
Public training and intervention	✓	✓	✓	✓	✓	✓	✓	✓
Promotion of fire alerting systems	✓	✓	✓	✓	✓	✓	✓	✓
Training of fire personnel	✓	✓	✓	✓	✓	✓	✓	✓
Sale and maintenance of fire protection equipment	✓	✓	✓	×	×	✓	×	×
Hazardous chemicals and material certification	✓	✓	×	✓	✓	×	×	×
Other	✓	✓	✓	✓	✓	✓	✓	✓
Nonfire preparedness								
Counter-terrorism	✓	✓	✓	✓	✓	✓	✓	✓
Critical infrastructure protection	✓	✓	✓	✓	✓	✓	✓	✓
National security support	✓	✓	✓	✓	✓	✓	✓	✓
Fire response								
Structural fire suppression	✓	✓	✓	✓	✓	✓	✓	✓
Wild fire suppression	✓	✓	✓	✓	✓	✓	✓	✓
Response to incident involving hazardous substances	✓	✓	✓	✓	✓	✓	✓	✓
Interagency response/incident management arrangements	✓	✓	✓	✓	✓	✓	✓	✓
Other	✓	✓	✓	✓	✓	✓	✓	✓

Table DA.2 **All activities of fire service organisations**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*
Nonfire response								
Hazardous materials incidents	✓	✓	✓	✓	✓	✓	✓	✓
Chemical biological and radiological incidents	✓	✓	✓	✓	✓	✓	✓	✓
Aircraft/airport incident response	✓	✓	✓	✓	✓	✓	✓	✓
Medical emergencies	✓	✓	✓	×	×	✓	✓	✓
Road crash rescue	✓	✓	✓	✓	✓	✓	✓	✓
Industrial rescue	✓	✓	✓	✓	✓	✓	✓	✓
Rescue	✓	✓	✓	✓	✓	✓	✓	✓
Storm damage	✓	✓	✓	✓	✓	×	✓	✓
Natural events	✓	✓	✓	✓	✓	✓	✓	✓
Marine response	✓	✓	×	✓	✓	×	✓	✓
Technological and hazardous material incidents	✓	✓	✓	✓	✓	✓	✓	✓
Emergency relief and recovery	✓	✓	✓	✓	✓	✓	×	×
Vertical rescue	✓	✓	✓	✓	✓	✓	✓	✓
Urban search and rescue	✓	✓	✓	✓	✓	✓	✓	✓
Fire recovery								
Critical incident stress debriefing	✓	✓	✓	✓	✓	✓	✓	✓
Salvage and restoration of the emergency event to a safe state	✓	✓	✓	✓	✓	✓	✓	✓
Support for the community	✓	✓	✓	✓	✓	×	✓	×
Post incident analysis of events	✓	✓	✓	✓	✓	✓	✓	✓

Source: State and Territory governments (unpublished).

Table DA.3 All activities of State Emergency Services and Territory Emergency Services

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*
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)
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 ACTES undertake air observer duties only, offshore. They do not participate in sea rescue.

Source: State and Territory governments (unpublished).

Table DA.4 S/TES recurrent expenditure ($'000) (2009-10 dollars) (a)

	NSW	*Vic*	*Qld* (b)	*WA* (c)	*SA* (d)	*Tas* (e)	*ACT*	*NT* (f)	*Aust* (f)
2004-05	41 316	16 952	8 203	na	11 795	2 806	1 099	3 017	na
2005-06	46 659	16 631	12 151	209 815	18 124	4 586	910	3 557	102 618
2006-07	45 468	20 845	10 983	242 860	15 368	4 725	1 153	2 993	101 534
2007-08	53 848	28 247	13 920	228 187	15 671	4 433	1 235	3 315	120 668
2008-09	54 816	29 173	12 476	224 630	15 005	2 480	1 227	3 376	118 555
2009-10	56 763	29 596	14 068	258 334	15 577	2 598	1 225	3 337	123 164

(a) Data for 2009-10 are budgeted expenditure.

(b) Qld: Direct funding model implemented. Previous figures include other funding such as wages.

(c) WA: The Fire and Emergency Services Authority is unable to separate funding allocations based on services. The figures provided represent total costs of services for the organisation as a whole and include costs to deliver SES, Fire & Rescue Services, Bush Fire Services and Volunteer Marine Rescue Services.

(d) SA: Budgets are sourced principally from Community Emergency Services fund (approx. 95 per cent). In 2004-05 and 2005-06 SASES was part of Emergency Service Administration Unit and paid a cross charge for business and strategic services. From 2006-07 the SA Fire and Emergency Services Commission has been independently funded and the historic cross charge to SASES was eliminated.

(e) Tas: SES is also responsible by statute for broader whole-of-government emergency management functions across all levels of government and the stated TAS SES funding supports these functions.

(f) NT have provided revised data for this Report sourced from the Police, Fire and Emergency Services Annual Report (expenses by output - Emergecy services).

na Not available.

Source : Australian Council of State Emergency Services 2010, *State and Territory Emergency Service National Performance Indicator November 2010* , NSW; ABS 2011, *Australian National Accounts: National Income, Expenditure and Product, June Quarter 2011* , Cat. no. 5206.0, Table 32, Expenditure on Gross Domestic Product (GDP), Chain volume measures and Current prices, Annual (Series ID. A2304682C), Canberra (table AA.39).

Table DA.5 S/TES volunteer human resources (number)

	NSW (a)	*Vic*	*Qld* (b)	*WA* (c)	*SA* (d)	*Tas*	*ACT*	*NT* (e)	*Aust*
2006-07									
Operational	10 331	3 101	7 000	1 854	1 821	525	191	347	25 170
Non-operational	na	1 310	na	na	na	na	na	na	na
Total	**10 331**	**4 411**	**7 000**	**1 854**	**1 821**	**525**	**191**	**347**	**26 480**
2007-08									
Operational	10 114	3 691	6 430	1 827	1 828	530	205	293	24 918
Non-operational	na	1 142	na	na	na	30	na	na	na
Total	**10 114**	**4 833**	**6 430**	**1 827**	**1 828**	**560**	**205**	**293**	**26 090**
2008-09									
Operational	10 954	3 691	6 300	1 886	1 613	552	247	299	25 542
Non-operational	na	1 809	na	14	na	32	na	na	na
Total	**10 954**	**5 500**	**6 300**	**1 900**	**1 613**	**584**	**247**	**299**	**27 397**
2009-10									
Operational	10 356	4 028	6 800	1 898	1 532	537	229	335	25 715
Non-operational	na	1 193	na	16	na	na	na	na	na
Total	**10 356**	**5 221**	**6 800**	**1 914**	**1 532**	**537**	**229**	**335**	**26 924**
2010-11									
Operational	10 828	3 273	7 000	1 950	1 701	615	240	377	25 984
Non-operational	na	1 898	na	44	na	na	na	na	na
Total	**10 828**	**5 171**	**7 000**	**1 994**	**1 701**	**615**	**240**	**377**	**27 926**

(a) NSW: Active volunteers are termed 'active members' and nonactive volunteers are termed 'reserve members'. In 2008-09 there are 10 954 operational volunteers comprised of 9850 active members and 1104 reserve members.

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

(c) WA: Data excludes volunteer emergency service members who may also undertake an SES role (625 in 2010-11).

(d) SA: Data refer to active, operational members.

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

na Not available.

Source: State and Territory governments (unpublished).

Table DA.6 Total asset loss from emergency events ($ million) (2010-11 dollars) (a) (b)

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
2006-07									
Fire	–	–	–	–	–	–	–	–	–
Storm	1 732	–	–	9	–	–	–	–	1 741
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**1 732**	**–**	**–**	**9**	**–**	**–**	**–**	**–**	**1 741**
2007-08									
Fire	–	–	–	–	–	–	–	–	–
Storm	573	24	–	–	–	–	–	–	597
Flood	17	–	533	–	–	–	–	–	549
Other	–	–	–	255	–	–	–	–	255
Total	**589**	**24**	**533**	**255**	**–**	**–**	**–**	**–**	**1 401**
2008-09									
Fire	–	1 137	–	–	–	–	–	–	1 137
Storm	–	–	328	–	–	–	–	–	328
Flood	90	–	20	–	–	–	–	–	111
Other	–	–	–	–	–	–	–	–	–
Total	**90**	**1 137**	**349**	**–**	**–**	**–**	**–**	**–**	**1 576**
2009-10									
Fire	–	–	–	7	–	–	–	–	7
Storm	–	1 058	–	1 067	–	–	–	–	2 125
Flood	–	–	47	–	–	–	–	–	47
Other	–	–	–	–	–	–	–	–	–
Total	**–**	**1 058**	**47**	**1 074**	**–**	**–**	**–**	**–**	**2 179**
2010-11									
Fire	–	–	–	35	–	–	–	–	35
Storm	–	384	1 300	–	–	–	–	–	1 684
Flood	–	114	2 400	–	–	–	–	–	2 514
Other	–	–	–	–	–	–	–	–	–
Total	**–**	**498**	**3 700**	**35**	**–**	**–**	**–**	**–**	**4 233**

(a) Costs not currently 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.

(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.

– Nil or rounded to zero.

Table DA.6 **Total asset loss from emergency events ($ million) (2010-11 dollars) (a) (b)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*

Source : Insurance Council of Australia 2011, *Historical & current disaster statistics* , http://www.insurancecouncil.com.au/Default.aspx?tabid=1572 (accessed 10 October 2011); Australian Government 2011, *Attorney-General's Department Disasters Database* , http://www.disasters.ema.gov.au/ (accessed 10 October 2011); ABS 2011, *Australian National Accounts: National Income, Expenditure and Product, June Quarter 2011* , Cat. no. 5206.0, Table 32, Expenditure on Gross Domestic Product (GDP), Chain volume measures and Current prices, Annual (Series ID. A2304682C), Canberra (table AA.39).

Table DA.7 Deaths from emergency events (a), (b), (c)

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (d)
Road traffic deaths (ICD code V01-V99, X82, Y03, Y32) (e) (f)										
2000	no.	607	421	321	214	167	33	23	56	1 827
2001	no.	543	445	375	176	152	50	17	43	1 788
2002	no.	521	403	346	194	152	39	15	63	1 707
2003	no.	454	351	294	188	168	43	15	57	1 563
2004	no.	393	347	310	179	139	57	12	37	1 462
2005	no.	367	391	287	163	161	50	29	56	1 490
2006	no.	359	363	309	196	130	56	15	45	1 453
2007	no.	347	341	380	246	143	48	17	42	1 553
2008	no.	315	331	368	228	119	49	22	74	1 490
2009	no.	295	320	348	206	119	58	23	43	1 397
Annual road traffic death rate										
2000	per million people	93.6	88.8	90.1	114.2	111.0	70.0	73.0	286.4	95.4
2001	per million people	82.6	92.6	103.3	92.6	100.5	106.0	53.2	217.4	92.1
2002	per million people	78.6	82.9	93.1	100.7	99.9	82.5	46.5	315.9	86.9
2003	per million people	68.0	71.3	77.2	96.3	109.7	90.0	46.1	284.9	78.6
2004	per million people	58.6	69.7	79.5	90.3	90.2	118.1	36.6	183.1	72.6
2005	per million people	54.3	77.4	71.8	80.8	103.7	102.8	87.8	271.4	73.1
2006	per million people	52.7	70.8	75.5	95.2	82.9	114.3	44.9	213.6	70.2
2007	per million people	50.4	65.5	90.9	116.8	90.3	97.3	50.0	195.4	73.9
2008	per million people	45.1	62.3	85.7	105.0	74.2	98.5	63.7	336.6	69.5
2009	per million people	41.3	58.8	78.6	91.8	73.3	115.2	65.3	190.3	63.6
Exposure to forces of nature deaths (ICD code X30-X39) (g)										
2000	no.	9	17	7	4	6	–	–	1	44
2001	no.	11	3	2	1	4	3	–	–	23
2002	no.	9	1	6	4	3	–	–	–	23
2003	no.	10	7	4	1	5	4	–	–	28
2004	no.	16	13	24	–	10	1	–	4	65
2005	no.	12	4	5	2	15	4	–	1	40
2006	no.	16	7	1	1	12	6	–	1	47
2007	no.	23	7	6	10	8	3	–	–	55
2008	no.	24	6	4	8	8	2	–	7	58
2009	no.	11	30	1	6	28	–	–	1	81

Table DA.7 **Deaths from emergency events (a), (b), (c)**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (d)
Annual exposure to forces of nature death rate										
2000	per million people	1.4	3.6	2.0	2.1	4.0	–	–	5.1	2.3
2001	per million people	1.7	0.6	0.6	0.5	2.6	6.4	–	–	1.2
2002	per million people	1.4	0.2	1.6	2.1	2.0	–	–	–	1.2
2003	per million people	1.5	1.4	1.1	0.5	3.3	8.4	–	–	1.4
2004	per million people	2.4	2.6	6.2	–	6.5	2.1	–	19.8	3.2
2005	per million people	1.8	0.8	1.3	1.0	9.7	8.2	–	4.8	2.0
2006	per million people	2.3	1.4	0.2	0.5	7.7	12.2	–	4.7	2.3
2007	per million people	3.3	1.3	1.4	4.7	5.0	6.1	–	–	2.6
2008	per million people	3.4	1.1	0.9	3.7	5.0	4.0	–	31.8	2.7
2009	per million people	1.5	5.5	0.2	2.7	17.2	–	–	4.4	3.7
Fire deaths (ICD codes X00-X09, X76, X97, Y26) (h)										
2000	no.	55	30	34	7	9	3	3	2	146
2001	no.	27	16	17	13	16	9	1	1	104
2002	no.	49	34	24	10	12	8	1	3	141
2003	no.	46	29	18	20	16	7	3	2	143
2004	no.	39	23	15	6	12	11	1	4	110
2005	no.	62	27	18	7	13	5	3	4	138
2006	no.	30	22	19	5	12	4	4	–	92
2007	no.	25	30	24	13	11	1	4	6	113
2008	no.	28	36	20	15	10	8	–	4	118
2009	no.	32	197	15	8	12	6	4	1	273
Annual fire death rate										
2000	per million people	8.5	6.3	9.5	3.7	6.0	6.4	9.5	10.2	7.6
2001	per million people	4.1	3.3	4.7	6.8	10.6	19.1	3.1	5.1	5.4
2002	per million people	7.4	7.0	6.5	5.2	7.9	16.9	3.1	15.0	7.2
2003	per million people	6.9	5.9	4.7	10.2	10.4	14.7	9.2	10.0	7.2
2004	per million people	5.8	4.6	3.8	3.0	7.8	22.8	3.1	19.8	5.5

Table DA.7 **Deaths from emergency events (a), (b), (c)**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (d)
2005	per million people	9.2	5.3	4.5	3.5	8.4	10.3	9.1	19.4	6.8
2006	per million people	4.4	4.3	4.6	2.4	7.7	8.2	12.0	–	4.4
2007	per million people	3.6	5.8	5.7	6.2	6.9	2.0	11.8	27.9	5.4
2008	per million people	4.0	6.8	4.7	6.9	6.2	16.1	–	18.2	5.5
2009	per million people	4.5	36.2	3.4	3.6	7.4	11.9	11.4	4.4	12.4
Total emergency event deaths										
2000	no.	671	468	362	225	182	36	26	59	2 017
2001	no.	581	464	394	190	172	62	18	44	1 915
2002	no.	579	438	376	208	167	47	16	66	1 871
2003	no.	510	387	316	209	189	54	18	59	1 734
2004	no.	448	383	349	185	161	69	13	45	1 637
2005	no.	441	422	310	172	189	59	32	61	1 668
2006	no.	405	392	329	202	154	66	19	46	1 592
2007	no.	395	378	410	269	162	52	21	48	1 721
2008	no.	367	373	392	251	137	59	22	85	1 666
2009	no.	338	547	364	220	159	64	27	45	1 751
Annual emergency event death rate										
2000	per million people	103.5	98.7	101.6	120.0	120.9	76.4	82.5	301.7	105.3
2001	per million people	88.4	96.6	108.6	99.9	113.8	131.4	56.4	222.5	98.6
2002	per million people	87.3	90.1	101.2	108.0	109.8	99.4	49.6	331.0	95.2
2003	per million people	76.4	78.6	83.0	107.0	123.4	113.1	55.3	294.9	87.2
2004	per million people	66.8	76.9	89.5	93.3	104.5	142.9	39.7	222.7	81.3
2005	per million people	65.3	83.6	77.6	85.3	121.7	121.3	96.9	295.6	81.8
2006	per million people	59.4	76.5	80.4	98.1	98.2	134.7	56.9	218.4	76.9
2007	per million people	57.3	72.6	98.1	127.7	102.3	105.4	61.8	223.3	81.9
2008	per million people	52.5	70.2	91.3	115.6	85.4	118.6	63.7	386.7	77.7
2009	per million people	47.4	100.5	82.3	98.0	97.9	127.2	76.7	199.2	79.8

Table DA.7 Deaths from emergency events (a), (b), (c)

	Unit	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust (d)
Population										
Jun 2000	m	6.5	4.7	3.6	1.9	1.5	0.5	0.3	0.2	19.2
Jun 2001	m	6.6	4.8	3.6	1.9	1.5	0.5	0.3	0.2	19.4
Jun 2002	m	6.6	4.9	3.7	1.9	1.5	0.5	0.3	0.2	19.7
Jun 2003	m	6.7	4.9	3.8	2.0	1.5	0.5	0.3	0.2	19.9
Jun 2004	m	6.7	5.0	3.9	2.0	1.5	0.5	0.3	0.2	20.1
Jun 2005	m	6.8	5.0	4.0	2.0	1.6	0.5	0.3	0.2	20.4
Jun 2006	m	6.8	5.1	4.1	2.1	1.6	0.5	0.3	0.2	20.7
Jun 2007	m	6.9	5.2	4.2	2.1	1.6	0.5	0.3	0.2	21.0
Jun 2008	m	7.0	5.3	4.3	2.2	1.6	0.5	0.3	0.2	21.4
Jun 2009	m	7.1	5.4	4.4	2.2	1.6	0.5	0.4	0.2	22.0

(a) 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 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.

(e) 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).

(f) 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. 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 9 provides more recent data sourced by the Australian Road Deaths Database (Australian Government 2011a) as reported by the police each month to the State and Territory road safety authorities.

(g) Exposure to forces of nature 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).

(h) Fire deaths 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).

– Nil or rounded to zero. **np** Not published.

Source: ABS various years, *Causes of Death, Australia,* Cat. no. 3303.0 (published - *ICD code details,* and unpublished - *Total fire deaths*), Canberra; ABS 2011, *Australian Demographic Statistics,* Cat. no. 3101.0, Canberra (table AA.2).