DISASTER MANAGEMENT

What we need for our present and future generations to manage disasters in our country?

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What do we need for our present and future generations to manage the disasters in our country?

This paper was developed for a presentation to members of the Australasian Institute of Emergency Services. It considers a range of issues related to disaster management. The paper is a way of repaying in some small

Australia fires: A visual guide to the bushfire crisis

measure the wonderful acknowledgment that I received from the AIES in 2012 by the award of your National Medal of Excellence. The award related to the work that I had done during 2010/11 "Summer Of Disasters" in Queensland including my role as Queensland's inaugural State Disaster Coordinator, and our response to Tropical Cyclone Yasi. I always believed that the award reflected the great effort by the huge team of individuals who worked tirelessly during that period to keep Queensland safe.

Disaster management – a broad subject

Research and Policy house surveyed with several AIES members. This initiative was an attempt to distil the areas that participants will consider most worthy of comment.

Of the 16 questions in the survey, responses for the aggregate of *strongly agree* or *agree*, 4 reached 25 or more votes with 2 more reaching 24 votes. The subject matter for the 6 areas of interest are:

The development and retention of local leadership in disaster management (28)

- Future governance of disaster management relationships among civil agencies (28)
- Future models for disaster management through partnerships (27)
- Challenges in rural-and-remote regions (26)
- Developing and retaining skills in disaster management (24), and
- Managing volunteers, recruitment training, and managing spontaneous volunteers (24)

The question that received the most number of *strongly agree* votes was unsurprisingly the *future governance* area of interest.

1. Important lessons learned while dealing with disasters with examples.

"People are the heart for managing any Disaster"

Reflecting on some of my experiences in disaster management, an important lesson that I have learned is *no matter what our policies, plans, and contingencies are, in the heat of the moment it always comes down to people*. For example, the couple who lived in a small regional community in Queensland where floodwaters were swiftly inundating their neighbourhood. They were in their ninety's but healthy. An evacuation was ordered and houses subsequently checked by SES and police working together to make sure everyone was out. Water to the floorboards, services cut off for 3 days, and as we patrolled and others were moving back to the neighbourhood, this couple emerged having never left. Their pets were old and frail and they couldn't bear to leave them. We were lucky. They were lucky. Accounting for everyone (and their pets) must be a priority.

The second example is about *expert advice*. In the early days of the rain and flooding that came as a result of the aftermath of TC Tasha, we started to see river systems rising along almost the entire northern and central coasts and inland of Queensland. It was the 27th of December 2010 and we had had a long day of meetings and discussions centered on the Bundaberg Region which was experiencing minor flooding but with more to come. A small town called Theodore population of about 450 was facing record level water in the local river BUT our experts assured us that time was on our side due to the wine-glass effect of flooding which simply means as rivers rise it generally takes a lot more water to increase the actual flood height. The water simply spreads out more

across the ground. We went to bed that night comfortable in the knowledge that the residents in Theodore were safe for at least 24 hrs perhaps more. At 4 am I was woken with the news that shortly after midnight they were cutting down street-lamps in the heart of Theodore so helicopters could land to effect an emergency mass evacuation. The first time a whole town was evacuated in the history of the State. It wasn't to be the last! Getting a second opinion never hurts!

The third experience is of an incident involving *local knowledge and local leadership*. Around the same time, we were dealing with the catastrophic flash floods that hit Toowoomba and the Lockyer Valley, a record level flood was racing toward one of our larger border towns in the South West. Some flooding had already meant the self-evacuation of about 100 homes in the general area but the town was protected by a levee bank which had stood the test of time. As the flood fast approached, I asked the Mayor a casual question about their local emergency evacuation plans and just as casually he told the meeting of the State Disaster Group that they did not have one or need one because the levee meant the town was safe. It was a pin drop moment. I questioned the formal hydrology reports that supported this situation and he happily told me of the private advice they had received from a reputable hydrologist some years before that underpinned their decisions.

It was at this stage that we took the discussion off-line. I posed one simple question to the Mayor. *What if he and the hydrologist were wrong? Who would be held responsible for flooding his township?* He understood but being a book-maker by profession, the Mayor made it clear that if he was right I would have to acknowledge it. Within an hour stage 1 evacuations were occurring, with contingencies for stages 2 and 3 covering the entire community. The good news

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was that the township did not suffer major inundation, and many times since, I have acknowledged the Mayor's faith in the levee bank.

My key learning was that while we come and go when disasters strike, local leaders remain, and this includes emergency services leaders. I have never lost sight of this fact and have always done everything necessary to work with these leaders and give them the respect they deserve. After all, they know their community better than most!

2. Comments on the recent RCNNDA Report for findings.

Importantly, as a result of the significant bushfires that impacted most States of Australia in 2019/20, *The Royal Commission into National Natural Disaster Arrangements* (RCNNDA) was held to consider a wide range of issues and we now have a report providing the collective Governments of Australia, it's States and Territories with 80 recommendations. From my perspective, I was encouraged by the Commission's findings that the operational component of disaster management should remain firmly local, at a local government level, a district level, or to a state. The Commission also found that the Australian government should have an increased role, particularly where an event is so significant to warrant its classification as a national disaster. It also found the Australian government should support greater interoperability and sharing of resources, enhanced community awareness, and preparedness, national consistency of policies and standards, to name but a few of the areas covered.

I confess that I see many parallels between the current situation facing our various disaster management systems across Australia and the situation facing the same governments immediately after the September 11 terrorist

attacks in the United States of America. Since 2001, Australia has dramatically improved its capacity and capability to address terrorism in a combined and integrated way. Much of the progress can be credited to the establishment of the now Australian and New Zealand Counter Terrorism Committee (ANZCTC) and the funding provided by the Commonwealth government to drive the needed reforms. The Royal Commission on National Natural Disaster Arrangements has highlighted the work of the Australia and New Zealand Emergency Management Committee (ANZEMC). It is noted that their current remit revolves around policy development and appears to mirror the intent of ANZCTC in capacity and capability development. The Royal Commission also recommends the development of a strategic policy advisory group. Recommendation 3.2 states:

> *Recommendation 3.2 Establishment of an authoritative disaster advisory body-Australian, state, and territory governments should establish an authoritative advisory body to consolidate advice on strategic policy and relevant operational considerations for ministers in relation to natural disasters.*

My argument is that these layers of committees will support coordination without impacting state and local leadership in actual events. I also trust that the funds required to encourage all stakeholders to build capacity, capability, and resilience will be increased.

3. Reflections on the complexity of disaster management in Australia.

In an era of evolving complexity, much of our decision-making is guided by risk assessment based on the availability of information and data that is increasingly available in our digital world (certainly in Australia). This is

particularly so for governments who are motivated, I would argue, by the ideals of transparency, accountability, and responsiveness. Sadly, governments are also very aware (as are most large organizations) of the increasing litigation that often follows examples of policy and or operational error and failure. The usual reaction by Governments when failure of their systems occurs is to add layers of governance to an often crowded space. Higher levels of approval, more written directives and policy, layers of consultation prior to a decision, and in some cases operational processes included in legislative requirements.

While such actions may satisfy some, the net effect, particularly at the operational level, is often to stifle innovation, decision making, and motivation. While in the past such impediments to front-line decision making were mainly restricted to large urban environments (where layers of management abound), enhanced digital communications have meant an encroachment into rural and isolated environments as well. Micro-managing operational teams from afar is, without doubt, a recipe for disaster (no pun intended). Increasing layers of governance as the only option to manage increasing complexity will ultimately grind the system to a standstill (even with the promise that technology will overcome this inertia). The human brain is still the most powerful of computers! There are other viable options.

No consideration of disaster management is complete without considering the resilience of our communities, our emergency responders, our systems, and our governance structures. We have seen many examples of community resilience in the aftermath of natural disasters right across our nation. It is gratifying to note the positive and growing approach to resilience at all levels in the community as we identify and remediate systemic failures exposed in

successive disasters around the country. National coordination and facilitation are key factor in continuing this context.

4. Addressing the 6 areas identified by the survey

a. The development and retention of local leadership in disaster management.

The professionalisation of disaster management and leadership can be achieved in part *by the creation of paid positions*. We, as a nation can no longer ask our citizens who in the main are volunteers, to commit to the development of the extensive knowledge and skills required of their roles. This includes not only national credentials and standards but the active exercising of these capabilities. That in addition to actually performing their roles in emergency situations when a disaster occurs. This of course would also mean paid positions (not necessarily full-time) for suitable and motivated individuals to create a career path to those leadership roles. It would also enhance our capacity in all phases of disaster management namely, mitigation, preparedness, response, and recovery.

It has also been notified by the significant commentary in the report by The Royal Commission into National Natural Disaster Arrangements regarding the reality and culture of volunteerism that pervades their roles, it appears unlikely that professionalisation over the long term can succeed without more paid positions. Ultimately, an organisation similar to the Defence Force Reserves may be the answer.

b. Future governance of disaster management relationships among civil agencies.

With the professionalisation of leadership roles providing the potential for stronger emergency management agencies generally, the need for clear lines of accountability including command and control structures during emergencies would appear essential. Nationally recognized credentials would also provide a high level of confidence in emergency management.

The Australian States currently has a number of distinct models for disaster management based on historic relationships and specific factors such as population dispersal and geography. The ability of technology to address some, if not most of these factors is increasingly apparent. It would seem logical that a National model of governance policy is both achievable and in many ways desirable. A standard system/structure across all jurisdictions would be beneficial in coordination and operational arrangements between all agencies involved in disaster management. It would also lessen the costs associated with managing the strategic layers of disaster management allowing enhanced funding of operational areas.

Importantly, a Defence Force Reserves model provides for enhanced governance while supporting local leaders, State-based control, and National integration and coordination.

At the higher levels of policy development and inter-government cooperation, I note Chapter 3 of The Royal Commission into National Natural Disaster Arrangements and their recommendations regarding current and future structures. It is worth noting that goodwill and trust relationships across disaster management stakeholders, organizations, and contractors have often been the glue that has made our systems work!

c. Future models for disaster management through partnerships

It seems inevitable that greater reliance will be placed on partner organizations to manage disasters in the future. This shift in support has a long history of success in Australia. One needs only to consider the need for ever-increasing expertise to deal with the growing complexity of both disasters and community expectations, to recognise the benefits of this continuing trend.

Some examples include the involvement of the Australian Red Cross in disaster recovery, the logistics support provided by national carriers, or the roles of our power, water, and communication companies (all of which previously were government entities but are now mainly private entities).

Similarly, private companies or institutions providing research, training, tertiary level development, expertise in emerging technology such as the use of drones, and importantly data collection and analysis across a range of disciplines. There is also the example of the health sector being directly involved in the Covid19 disaster. There are also examples of private emergency response units, eg. private forestry fire fighting teams, who regularly respond in disasters to assist local teams. Without a doubt, the growing reliance on partnerships will continue.

d. Challenges in rural-and-remote regions

I have already touched on some of the challenges present in rural and remote areas when dealing with disasters. I have experienced many wonderful examples of the commitment and expertise of local disaster groups at all levels of the disaster continuum. It is worth repeating that in most rural and remote areas the vast majority of personnel involved in disaster management are volunteers, many with decades of service and experience

in their roles. They have also witnessed the tragedies that have occurred when the dark hand of fate overwhelms even the best of these 'heroes', and the devastation such losses have on entire, often small communities.

It has already identified the option of *paid employment* for those who contribute as members of rural emergency services including non-urban fire units. But there are other opportunities to enhance the work of these groups in rural and remote locations. These include enhanced equipment, funding for maintenance, better communications capabilities, and enhanced information systems that provide real-time operational intelligence both tactical and strategic. Situational awareness adds to the safety and impact of 'response teams'. All such enhancements together with enhanced community education generally, will make Australia a safer place.

I would strongly argue that *local knowledge and leadership* are critical to the success of disaster management in all phases. Without the intimate knowledge of geography, local population, local capability, local historic impacts of disasters, and the confidence of their community, the probability of successful operations in times of disaster is significantly compromised.

e. Developing and retaining skills in disaster management.

The recent report by The Royal Commission into National Natural Disaster Arrangements provides some insight and recommendations which may address this continuing risk. Chapter 6 of their report is relevant in this regard. Their focus on a renewed effort to assist in the development of emergency response capability is welcome. The question is, how do we adjust for the future environment of disaster management also outlined in the same report.

Without a doubt, we as a nation will need to continue to develop and retain expertise in disaster management including our response capability in all areas. As argued earlier on greater reliance on paid roles would of course take time. Perhaps, part of the answer lies in *life-long learning and the use of our various education systems at primary and secondary levels to better inform our youth of their role and career opportunities in dealing with disasters*. Such arrangements may have multiple positive outcomes for the safety of our communities. Again, the issue of implementing such a scheme will take time.

Perhaps a continuing acknowledgment of the members of our emergency services in particular those who serve as volunteers is something we could achieve nationally. I am aware that this is potentially the antithesis of volunteerism, but its positive impact can be profound.

f. Managing volunteers, recruitment training, and managing spontaneous volunteers.

Our National and State laws particularly regarding workplace safety and duty of care by employers and supervisors are complex. At the heart of managing all staff including volunteers is a need for a robust and accurate human resource management system. In disaster management situations, having accurate records of deployments is critical. Whatever the structure, an availability of a national standard system would be fundamental to a system where interoperability is paramount.

While future national structures and standards would assist emergency service providers, there may be merit in an immediate consideration for paid training of current personnel including new recruits. Such a scheme would provide significant incentives to volunteers and salaried staff alike (occurring

mainly out of normal business hours and on weekends). Any paid training would also have to include travel, out-of-pocket, uniform/PPE, and equipment costs.

A phenomenon that has gained prominence in recent years (but which has always occurred) is that of *spontaneous volunteers*. While welcomed, they present unique challenges in managing them and their effort. They are also owed a duty of care by the community generally but are often untrained, ill-prepared, ill-disciplined, un-equipped, and resentful of even the basics of guidelines in their quest to assist their fellow citizens. Their efforts have in many cases been spectacular and have assisted communities to deal with major devastation. The use of online guidelines and advice for spontaneous volunteers and self-reporting systems may ease some concerns presently encountered. The training of 'employed emergency services leaders' in the management of spontaneous volunteers may also assist.

As mentioned earlier, the need to include in our National education systems from primary to tertiary levels components on disaster management including aspects of citizen responders. Such insights may assist a more informed response by spontaneous volunteers in times of community trauma.

While it can be challenging to manage, it is something that I hope will never disappear from the Australian culture.

5. Comment on resources for local projects, lessons learned from COVID, and the use of data.

a. How to bring resources to projects at the local level?

Whenever a significant disaster impacts a community, state, or the entire country, an inquiry of a magnitude proportionate to the disaster surely follows. The recent bushfires 2019-2020 and the associated Royal Commission is a case in point. There are many others. While the majority of recommendations from their report will no doubt be implemented, funds to address local issues and needs often flow almost immediately. The challenge locally is the variation in funding allocations year on year.

One can only hope that as more strategic issues are addressed, such as operational communication systems, funds will be provided to ensure that these enhanced systems are available to all relevant teams and agencies including training. Strategically, f*unds made available by the federal government will play an important role in enhancing local projects*.

Other funding sources such as those available from the *private sector and philanthropic organizations/foundations may also provide some opportunity*, provided these funds are sought and given within a system transparent and free of any conflict of interests. This does not need to be onerous, but it must as a minimum be a matter of public record.

Similarly, *donations have long played a part in funding specific local projects enhancing the capability of capacity for emergency services*. However, due to local circumstances, this may be problematic. While I claim no answer to the huge donations made to some local and state entities after the recent bushfire disasters, a system of equitable distribution of these funds should

be agreed upon prior to any disaster occurring, including assistance to individual responders or their families.

b. COVID 19 lessons learned

Without a doubt, the most important lesson for all emergency services provided by the impact of COVID 19 on our world community, is the realisation of *the potential of black swan events to significantly disrupt our way of life*. Our ability to respond has been both considered and in many cases inspirational, but it hasn't prevented the tragic loss of life by many in our community.

It has again shown the resilience of our emergency services and our health systems to respond to the threat of a world pandemic to a level that has rated Australia in the top ten countries in the world for the response and containment effort. It has also demonstrated the strength of our political systems when faced with a significant threat.

I am sure each of you reading this paper will have your views regarding the lessons learned. Many commentators have already shared their views. I am simply proud of the efforts of all those involved in keeping us as safe as possible and in preparing already for what may come.

c. How to use data

In a digital world, the pervasive nature and availability of data impact our lives on a daily basis. Our grocery stores know more about us than our own families. Our shopping patterns, the amounts we spend, where and when, and from who we buy our groceries are collected, available, and used extensively in marketing and business decisions by the companies who run these stores.

And yet, we become suspicious when confronted by government agencies who request often the most basic of information about our personal circumstances that may be relevant to disaster management. In a connected world, this data, used properly for disaster management and resilience, will save lives, reduce costs, and enhance mitigation strategies for the betterment of our country. It's time this data was readily available through secure public systems to enhance our ability to prepare for, mitigate, plan and respond and recover from disasters.

6. Conclusion

The complexity of disaster management continues to grow as our environment, both natural and man-made evolves. The expectations of the community of Australia for a safe and secure existence wherever they are in this vast country are likewise unrelenting. Most are willing to do their part in complying with directions to support emergency services efforts on their behalf. Many are willing to go further and become part of those services as either a paid employees or volunteers. But is it enough to safeguard our collective future?

Our National responsibility is to do as much as possible to prepare, mitigate and plan for all contingencies, even when the potential frequency of a particular type of disaster is extremely low. To achieve this goal, we need great leadership and a willingness to work together across our Nation. It is only when we have common policies, legislation, systems, operating procedures, and standards that we will truly be able to say, we are ready for any eventuality.

Then it will be time to start again!