

Prevention, Preparedness, Response, Recovery – an outdated concept?

Mal Crondstedt questions the relevance of the Comprehensive Approach to managing emergencies and disasters.

Disaster policy in Australia is led and defined by some basic principles adopted and promulgated by the Commonwealth for many years. Although Constitutionally the States within Australia have the legal role of providing for day-to-day emergency and disaster policy and services, the Commonwealth

in Australia. Encompassing emergency prevention, preparedness, response and recovery, it is defined in the Australian Emergency Management Glossary as: “The development of emergency and disaster arrangements to embrace the aspects of ...PPRR” (EMA, 1998, p24). Further, Emergency

All Hazards Approach, All Agencies Approach and Prepared Community) The same policies have been adopted by most emergency management policy makers around Australia and have been incorporated into high-level policy documents such as the State Emergency Management Committee’s (SEMAC) ‘Policy Statement Number 7’ (WA Government, 1997).

As mentioned earlier, PPRR was a concept developed some twenty-three years ago, well before risk management as we know it today was developed. Though PPRR has found a 'place' in the new methodology, the 'fit' is not neat and has inherent problems.

has, for some years, provided leadership and training in this field. As a result the basic emergency or disaster policy framework and associated definitions developed by the Commonwealth have been widely adopted by the States and Territories.

On such principle is the notion of a *Comprehensive or Prevention, Preparedness, Response and Recovery (PPRR)* approach to managing emergencies and disasters.

This paper examines the rationale and policy surrounding the adoption and use of the Comprehensive or PPRR approach and challenges its relevance in contemporary emergency management. It also explores the source of the concept and research challenges to its existence in contemporary emergency management policy.

Background to PPRR

The *Comprehensive Approach* is one of the fundamental concepts of emergency management promoted

Management Australia (EMA) details the concept on its website (EMA, 2001) as follows:

“The Commonwealth recognises four elements of emergency/disaster management, namely: prevention/mitigation; preparedness; response; and recovery...and advocates the development of ...arrangements to embrace all of them.”

EMA then goes on to detail the elements themselves:

“The first element is to prevent or mitigate...hazard impact. The second element is to ensure preparedness within the community. The third element is to provide an effective response, immediately following... hazard impact. The fourth element is to provide for recovery of the community affected by the hazard impact.”

The *Comprehensive Approach* is one of four key principles espoused by Emergency Management Australia as being the core policies to be pursued by emergency and related agencies (The others being the

The approach has also been promoted as best practice to international markets through at least one publication sponsored by the Asian Development Bank and drawn from largely Australian sources (Carter, 1991).

PPRR originates in the work of the State Governors’ Association in the United States (1978). It was first espoused as *Comprehensive Emergency Management (CEM)* suggesting a policy framework encompassing Mitigation, Preparedness, Response and Recovery. This framework was subsequently imported into Australian emergency management policy and has held prominence in policy ever since, having been adopted by many (if not most) Australian emergency management authorities. The principles have been adapted somewhat with the substitution of Mitigation with Prevention (though mitigation often appears appended to, or a part of, prevention).

It is apparent, from the author’s reading, that there are two broad rationales for the PPRR model. Firstly, PPRR has been represented as the sequence or phases of

emergency incidents and therefore describes the events that occur before, during and after an event. Secondly, the model has been used to categorise a 'menu' of available emergency management strategies.

A review of a sample set of state-level Hazard Management Plans developed by the State Emergency Service of WA reveals that *PPRR* is a central theme around which the hazards are managed (SES, 1999). The plans are largely organised around the *PPRR* elements and detail specific state-level strategies against each principle. In addition, the Fire Services of WA posit *PPRR* as four of the eight 'Strategic Intentions' in their Corporate Plan 1999–2001.

At least two other Fire Services in Australia use the *PPRR* model in some way. The Queensland Fire and Rescue Authority, in its 1998/99 annual report categorises its services using Prevention, Preparedness and Response (leaving off Recovery as an applicable service) (QFRA, 1999). The Metropolitan Fire and Emergency Services Board (Melbourne) similarly lists *PPRR* as a corporate strategy (MFESB, 1998).

Recent Developments in Emergency Management

There has been a general policy shift within the emergency management community in recent years associated with two key issues:

The shift from an internal agency focus to a community-centred focus – a shift away from delivering a limited range of services (usually response based) to more intelligent resource allocation based on risks – business-like management and outcome based performance.

Salter (1998, p11) illustrates some of these shifts in Figure 1.

With this shift has been a concentration on the best practice models of resource allocation and maximising return on investment. A clear watershed in this field was the development and publication of the joint *Australian / New Zealand*

Figure 1: Shift from internal agency to community-centred focus (Salter, 1998, p.11)

FROM		TO
Hazards	→	Vulnerability
Reactive	→	Proactive
Single Agencies	→	Partnerships
Science Driven	→	Multi-disciplinary approach
Response Management	→	Risk Management
Planning for Communities	→	Planning with Communities
Communicating to Communities	→	Communicating with Communities

Source: Salter (1998)

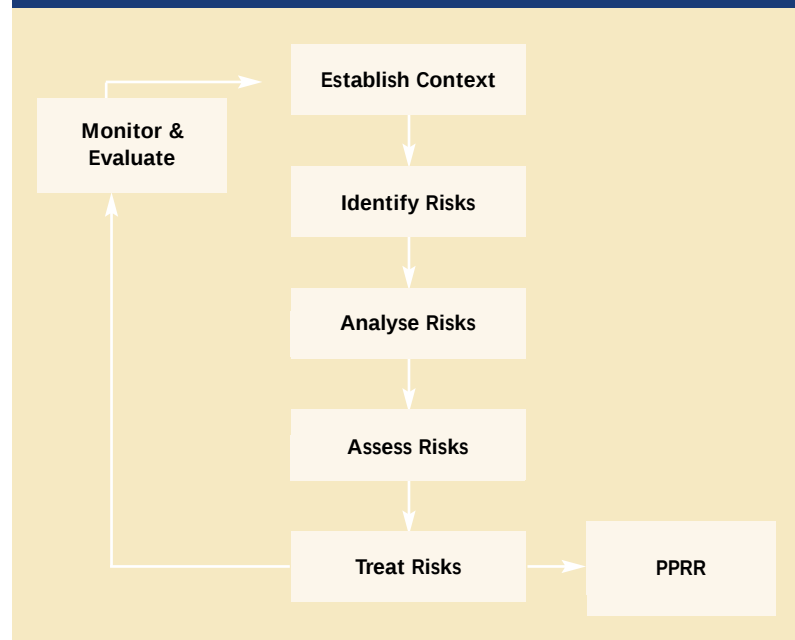
Standard on Risk Management AS 4360:1995. This Standard was written in generic style for adoption across both the public and private sectors. Numerous publications have since built on the foundations of the Standard, extending its sphere into public administration (AGPS, 1996), and emergency management (EMA, 1999).

In terms of emergency management, the guidelines for applying the Standard's methodology have been embraced, though the EMA concepts detailed earlier remain largely unchanged. *PPRR* or the

Comprehensive Approach has now found a place as emergency management's set of available treatments. Figure 2 outlines the risk management approach and where *PPRR* currently sits.

Figure 2 generalises the risk management approach as it applies to emergency management, though serves to illustrate where the *PPRR* elements 'sit'. In this system, it is clearly intended that *PPRR* categorise available emergency treatments rather than describe a continuum or cycle of events. The *Guidelines for Emergency Risk*

Figure 2: The place of PPRR in the risk management approach



Management (1998, p10) states, “This step takes each risk and identifies a range of prevention, preparedness, response and recovery treatment options.” The Guidelines then go on to recognise a broader range of treatments beyond the traditional *PPRR*. This clearly signals an intention to guide the reader to examine other options, and probably recognises that the Guideline authors are starting to think beyond *PPRR*, though *PPRR* remains as the first ‘appearing’ model.

Why challenge *PPRR*?

Recently some authors have challenged the *PPRR* paradigm in some way. Although the author cannot find any material that explicitly and directly challenges the usage of *PPRR* as a central concept, at least two writers provide points of view that challenge its foundations.

Kelly (1999, pp 25–27) reviews a variety of models that describe the disaster cycle. Kelly also posits a model for ‘complex non-linear events’. The model attempts to assist disaster managers “... define and understanding[sic] the relationship between inputs and impacts starting from the comparison of two factors, rather than beginning with the imprecise disaster stage classification approach” (ibid, p27).

The model posited by Kelly appears to have merit, though requires more work to clarify its inherent process. Notably, Kelly suggests that software tailored to the model will facilitate its application – this may make it more ‘user-friendly’.

Esplin in a short paper titled *Repositioning Emergency Management in a Larger Context* (2000), challenges emergency managers and policy makers to shift from their current ‘view of the world’.

It suggests that there are considerable drivers for change within and without the industry that will de-stabilise some strongly held concepts and beliefs. Though not explicitly stated, the author believes that *PPRR* is one of the concepts that is affected by the changes suggested by Esplin.

As mentioned earlier, *PPRR* was a concept developed some twenty-three years ago, well before risk management as we know it today was developed. Though *PPRR* has found a ‘place’ in the new methodology, the ‘fit’ is not neat and has inherent problems.

First of all, *PPRR* sets-up artificial barriers between the four elements and therefore implies a clear delineation between the elements. This delineation leads to unnecessary discussion and concentration of effort at categorising treatments into one of the elements. It seems that as much debate derives from arguing the appropriate category of a treatment than the appropriateness or otherwise of treatment.

Secondly, the elements always appear equally important in all circumstances. The four categories appear equal in weight and imply that one must always have strategies or treatments that fall under each element. This ‘forced’ weighting does not recognise that a risk management approach may not reveal strategies that neatly, or at all, fall under all elements.

Thirdly, the elements assume a sequential consideration of *PPRR* and that they must be considered and implemented in the same order all the time. This assumes that treatments are inextricably linked to the emergency cycle and that therefore treatments follow the same order. The Risk Management model however, does not make this

assumption and leads one to select the most appropriate treatments, regardless of order and categorisation.

Fourthly, the elements appear biased towards ‘action’ based treatments, whereas there may be softer options involving social dimensions. *PPRR*, tends to relate to activity and physical actions. This focus on action appears to be a carry-over from the emergency management paradigm that focussed on the hazard rather than vulnerability. Emergency Risk management now focuses on the interaction between the community and hazard within a particular context. Such consideration goes well beyond the physical hazard and includes socioeconomic and psychological vulnerability factors such as income, perceptions, networks/support groups, and the like. Many of these factors do not easily lend themselves to categorisation within the *PPRR* framework.

In summary, *PPRR* constrains broad and innovative thinking about risk treatments. It confines and channels ones approach to investigating and selecting the most productive risk treatment path.

An alternative approach

The risk management methodology should guide the selection, application and review of risk treatments, *without* the use of *PPRR* as a means of categorising treatments. The selection of treatments should be based on criteria founded on efficiency, effectiveness and economy. Efficiency provides the basis for cost/benefit comparison across treatments; effectiveness provides the basis for impact on risk level and risk criteria set up in the context; and economy is used as a basis for assessing resource implications for possible treatment selections.

PPRR should therefore be removed from usage in the emergency management community. The treatment selection methodology and criteria in the latest *Guidelines for Emergency Risk Management* remain suitable. However, once a large range of treatments have been brainstormed and aligned with appropriate criteria/options, questions testing the appropriateness of treatments, should be phrased as follows:

1. What will the impact of the treatment be on the assessed risk and how well will it meet the risk criteria (established at the 'context' stage)?
2. What is the cost/benefit ratio?
3. What is its total cost?
4. How acceptable will the treatment be in light of the environment in which it will be implemented and monitored (eg. organisation/political)?

The above questions are not exhaustive and are only intended to guide thought.

Un constrained thinking about possible treatments is a critical feature of deriving innovative, new and possibly better ways of treating risks. Participants in the risk management process, in particular while sourcing and selecting treatments, must therefore be able to look beyond a framework that emerged from an era well prior to the current risk management framework.

Related issues

While examining the issue of PPRR and its continued existence as a central emergency management concept, the author noted that there might be a need to question the existence of other accepted concepts. As noted at the outset of this paper, there are four concepts espoused by EMA as 'Australian Emergency Management Principles':

- All Hazards Approach,
- Comprehensive Approach (the subject of this paper),

- All Agencies Approach, and
- Prepared Community.

There may be a need to examine the concept and challenge them in a similar manner to PPRR. This however will be the subject of a separate paper (or papers!).

Conclusion

PPRR or the *Comprehensive* approach has been in common use across Australia since its importation from the United States over twenty years ago. It has become entrenched in emergency management plans, organisational corporate/strategic plans and is in common usage in the emergency management community.

Much has changed in the field of emergency management in the years since PPRR was adopted. Organisations have become more community and business focussed. The Risk Management standard was developed and adapted to the industry and numerous related contexts. Given the greater focus on risk management as espoused by the standard, it seemed timely to challenge some of the concepts that have endured the surrounding changes.

PPRR, it has been argued, is too constraining a concept in contemporary emergency management. Though valid and useful for focussing attention in the absence of any other suitable model, it is no longer as useful to emergency managers. The application of risk management methodology, complete with adequate efficiency, effectiveness and economic criteria (among others), will better focus our attention on appropriate risk treatments.

The next step is to challenge the remaining concepts and associated emergency management paradigms.

Bibliography

- Carter, W.N. 1991, *Disaster Management, A Disaster Managers Handbook*, Asian Development Bank, Manila
- Emergency Management Australia. 1998, *Australian Emergency Management Glossary*. Australian Emergency Manuals Part 1 Manual 3
- Emergency Management Australia, 2001, <http://www.ema.gov.au/5virtuallibrary/concepts.html>.
- Emergency Management Australia. 1998, *Guidelines for Emergency Risk Management* [un-published draft]
- Emergency Management Australia. 2000, *Emergency Risk Management – Applications Guide*
- Esplin, B. 2000, *Repositioning Emergency Management*
- Fire Services Division. 1999, *Fire Services Corporate Plan 1999–2001*, Fire and Emergency Services Authority of WA
- Kelly, C. 1999, Simplifying Disasters: Developing a Model for Complex Non-Linear Events, *The Australian Journal of Emergency Management* Vol14 (1) pp.25–27
- Management Advisory Board and Management Improvement Advisory Committee. 1996, *Guidelines for Managing Risk in the Australian Public Service*, AGPS Canberra
- Melbourne Fire and Emergency Services Board. 1999, *Annual Report 1998–1999*
- National Governors' Association. 1979, *Emergency Preparedness Project Final Report*, DCPA, Washington DC
- Queensland Fire and Rescue Authority. 1998, *Annual Report 1997–1998*
- Salter, J. 1998, Risk Management in the Emergency Management Context in Smith, D. J. (ed), *Risk Management for Safer Communities*, Melbourne.
- Standards Australia. 1995, *Australian / New Zealand Standard, Risk Management AS/NZS4360:1995*
- State Emergency Service. 2000, *Hazard Management Plans*, Fire and Emergency Services Authority of WA
- Western Australian Government. 1997, *State Emergency Management Advisory Committee Policy Statement No. 7*.

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