



EMERGENCY PREPAREDNESS CAPACITY BUILDERS

# **Good Emergency Planning**

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# GOOD EMERGENCY PLANNING

## Introduction

A stadium fire. A shaped charge breaching a dam wall. A toxic release at a vulnerable congregation hub. Explosions at an iconic site. A ferry sinking because of poor design; improper work practices or just by being overcrowded. A leak from a factory into adjacent dwellings. Floods and landslides which wash away shanty towns. Fires at the urban-forest interface. Crowd crush incidents. Earthquakes which destroy poorly built homes and disrupt vulnerable lifelines. Why and how do these disasters occur? How can we do better to do something about them?

Disasters do not “just happen”. Many are characterized by symptoms of inadequate management such as:

- a) relying on routine capabilities to provide a sufficient response in an extraordinary context;
- b) inadequate problem definition;
- c) working in isolation;
- d) relying on approaches from the past;
- e) a hasty and narrow pursuit of economic development;
- f) focusing resources on the hazard event and not the prevention opportunities; and
- g) focusing resources on the hazard event and not the impact implications.

These symptoms indicate failures of the key performance tests for good emergency planning - about **your state of knowledge and its application**: considerations around what you ought to know (or be reasonably expected to find out) about risks and their treatment.

This paper is about what characterizes good emergency planning. We emphasize as a first principle the importance of the planning process over the 'plan as a document' approach. While this is not to suggest documentation is unimportant, it is to suggest its proper place is as a supporting record of arrangements and enabling processes. Of itself it does not constitute sufficient evidence of performance. Our focus in this paper is on three fundamental emergency planning questions:

1. *What is it?*
2. *What influences it?*
3. *What does it need to be?*

## What is emergency planning?

Emergency planning involves two crucial stages - thinking and doing. Thinking is about policy research and decision making. Doing is about the implementation of capacity building options. Policy formation “centers on the choice to manage (or not to manage) a hazard by recognizing it as a threat, considering means of dealing with it, and setting goals relative to it” (Perry & Mushkatel, 1984: 9). Motives for choosing to manage may vary from 'good corporate citizenship', to legal and economic considerations such as 'liability reduction'. Our failure to recognize threats may be a function of various factors, from uncertainty and ignorance to the deliberate turning of a blind eye. The choice is subjective and involves a level of risk taking. The means of dealing with risk requires considering options across a spectrum of intervention opportunities. This spectrum incorporates strategies under prevention, preparedness, response and recovery, a concept promoted as 'The Comprehensive Approach'.

Issues related to such considerations are succinctly illustrated in the cartoon below and the following excerpt from the poem 'The Ambulance in the Valley' (Joseph Malins, 1895)

*'Twas a dangerous cliff, as they freely confessed,  
Though to walk near its crest was so pleasant;  
But over its terrible edge there had slipped  
A duke, and full many a peasant.  
The people said something would have to be done,  
But their projects did not at all tally.  
Some said 'Put a fence 'round the edge of the cliff',  
Some, 'An ambulance down in the valley'.*



Policy implementation “means putting some hazard management strategy into practice and includes the process of progressive change in the specific management practices as a function of feedback gained either by testing or rehearsal or by direct experience with the hazard agent” (Perry & Mushkatel, 1984: 9). This emphasis on process is fundamental. Planning is an active verb. Plans should be dynamic products - supportive outputs. The outcome is preparedness - a state (of being).

This distinction between plans and planning is well reinforced by Enrico Quarantelli, a doyen of disaster preparedness who defines (disaster) planning as “a process ... which involves all of those activities, practices, interactions, relationships, and so forth, which over the short term or long run are intended to improve the response pattern at times of (disaster) impact”. (Quarantelli, 1987:15)

If an initial question is 'should I place significance on a plan?', we suggest the answer is **'yes...but'** only if the plan is derived from a dynamic, ongoing, iterative process.

## What influences planning?

Two significant influences on any entity's emergency planning capabilities, be it a business, an organization, a city or a region are its **Structure** and its **Culture**.

**Structure** as a management concept has been defined as “a collection of institutions, rules of behavior, norms, roles, physical arrangements, buildings and archives that are relatively invariant in the face of turnover of individuals and relatively resilient to the idiosyncratic preferences and expectations of individuals” (March & Olsen, 1984: 741).

**Culture** is closely associated with structure and “includes all the institutionalized ways and the implicit cultural beliefs, norms, values and premises which underlie and govern behavior” (Payne, 1991:26). Many of our institutions are characterized by “an underlying, durable pattern of rules and behavior” (Dovers & Connor, 2002:4). Strong cultures produce systems, structures and role models which become resistant to change. A central problem related to planning capabilities is that “many cultural solutions, particularly those which develop into a strong culture, contain the seeds of their own destruction” (Payne).

A good illustration of this phenomenon is Sir John Franklin's expedition of 1845 - it bears quoting at length:

*In 1845 Sir John Franklin set out on an expedition to find the fabled Northwest Passage linking the Atlantic and Pacific oceans through the Arctic Circle. It was a vitally important expedition because, if the Northwest Passage existed, it could have provided a link between Britain and her far-flung Empire. Sir John and his company of 138 officers and men sailed in two three-masted barques with auxiliary steam engines. He expected the voyage to last two to three years.*

*Arctic conditions were, of course, dramatically different from those of England. However, the ships were equipped as replicas of English Royal Navy officers' clubs. Each ship had a 1200-volume library; there were copious amounts of china place settings, cut glass wine goblets and sterling silver table-ware and cutlery. The cutlery was engraved for the individual officers, with each officer's initials and family crest. Unfortunately, items such as these took up so much space that room could be found for only twelve days supply of coal for the auxiliary steam engines. They took no special clothing for the Arctic conditions, just the rather splendid naval uniforms, and equipment was standard: there were, for instance, no sleds.*

*It took twenty years to find the remnants of the expedition: the ships had been destroyed by the pack ice, but frozen bodies were found in groups, many kilometers from where their ships had disappeared. These were remnants of the scattered parties that had desperately sought survival in the alien land. Some members of these parties were still dressed in their fine blue uniforms, edged with silk braid and gold buttons. Surprisingly, in the improvised sleds and the ship's boats they had dragged for tortuous kilometers were large quantities of ornate table silver.' (Dunphy & Stace, 1992:1)*

Dunphy and Stace (1992) put the question of whether this is a metaphor for our times. We know there is a significant range of current practices where organizations “persist in doggedly dragging with them the cultural baggage of the past, despite all the evidence that it is a useless or dangerous encumbrance”.

Culture and structure are clearly important. The crucial trick is to get it right:

In management policy, **structure**, introduced into operations by design, is both a means of limiting error and of clarifying choices for action by multiple participants over time in complex environments. ...The **challenge** lies in **designing** this **structure** in ways that **achieve** the **stability** desired for effective performance of the management system, **without restricting** the **flexibility** required for adaptation to changing conditions. (Comfort, 1988:18)

Successful companies, institutions and organizations frequently share the characteristic of a strong culture. Continued success, especially under conditions of uncertainty requires they '...build into their strength the capacity to be adaptable, to look for change and new opportunities'. (Payne) This crucial capability will serve the entity well in both the general market place and in crisis.

## What does planning need to be?

Many plans are based on models. Models (or heuristics) are excellent devices in skilled hands. The skill is in understanding that they are only devices - for discovery and consideration. They need to be triggers of, rather than substitutes for, decision processes. Heuristics can become very powerful prompts but one should appreciate that 'any way of seeing is also a way of not seeing'.

The Internet and our electronic society have seen a proliferation of "planning templates". 'Just fill in the blanks and there you go!' **Be warned** - this is 'nominal plan as procrustean bed'. The word processor and electronic mail have much to answer for in planning, where it is not uncommon to find the same plan with some global word changes parading as rigor for different locations, organizations and risks. Unless a plan has evolved from a "needs basis" and is generated through a process involving those involved it will never quite "fit". The off the rack document (plan) only shows up as a failure when it comes apart at the seams under the stress of reality (performance).

Core features of good plans are **realism, integration, generality and resilience**.

### Be Realistic

Key aspects to consider here include:

- a) Assume nothing - find out (about what people think, believe and need)  
Many people in positions of influence and power assume they "know best" – not necessarily out of arrogance, often out of a sense of confidence in their knowledge and experience. History has many lessons of this error type. A focus on the needs of other stakeholders is fundamental in attempting to overcome this type of mistake.
- b) Use valid knowledge, not myths and misconceptions.  
Call them "movie myths" or fanciful misperceptions – whatever their source, they should be tested for veracity and cultural skew. For example, people are generally resilient and help each other – rather than dependent and selfish.
- c) Use a broad (and critical) knowledge base.  
Narrow doctrine or ideology and perceptions may be dangerous baggage. Do not bring a preconceived solution to the problem – especially an ideologically preferred one.
- d) Use premising to incorporate expected behaviors.  
Adaptable planning cannot rely on 'sunny day' assumptions - not everyone will be there. Those that will are likely not to be there with maximal resources – and they won't be able to be there for the duration. Run a range of scenarios with surprise elements.
- e) Use a range of techniques to identify the problem - solution range, and reduce uncertainties. Normal standards may not be appropriate standards. Is a quick response always an appropriate response? No it is not.

### Be Integrated

This should involve:

- a) Avoiding fragmentation.  
Never plan in isolation. "Silos of excellence" serve limited purposes – generally narrow and short term outcomes associated with only narrow interests and a few people.
- b) Building bridges in 'planning clusters'.  
Between people and between groups; between households and neighborhoods; within organizations and between organizations. Give life to the concept of community.

## Focus on General Principles

Consider that:

- a) Change is constant; specifics date.
- b) It is impossible to plan for everything.
- c) Complexity is not user friendly.
- d) Too many details lend importance to everything.

## Develop Resilience

Aspects to consider include:

- a) Focus on the most important aspects of risks pertinent to their management - not just things specific to particular hazard agents. The most important aspects of crises pertinent to their management derive from the hazard agent, the impacted entity and the interaction of hazard and vulnerable entity.
- b) Under '**hazard agent**', the focus should be on factors such as perceived dread, equity, frequency, probability, predictability, physical magnitude / area of impact, energy expenditure / intensity, speed of onset, and duration. These considerations inform length of forewarning, controllability, scope of impact / effects.
- c) Under '**impacted entity**', the focus should be on socio-cultural factors such as logistics and demographics (bottoms on seats etc.) belief systems, knowledge & perceptions of risk and the complexity of the social system (and its constituent groups).
- d) Examining the interaction between hazard agent and vulnerable entity is a fuzzy but productive line of inquiry and planning. The focus of lead combat authorities on 'walls of water', 'walls of fire' or 'walls of whatever' gives way to a consideration that **vulnerability and human social organization are the critical determinants of both risk and impact**. This view usefully recognizes disasters are first and foremost 'non-routine social problems'.(Alexander, 1992)

Consider the rigidity/fluidity factors with regard to your arrangements. Remember, 'a management system viewed as a set of organizational ecologies that simultaneously inform and support one another, is likely to provide a more timely and appropriate response than an organization directed from a single centralized source of authority' (Comfort, 1988). If vulnerability is the central problem for which contingency is required, then capacity building and resilience offer scope for a solution. Resilience must extend to and permeate the structure, and culture of entities (families, households, businesses and organizations).

## From traditional methods and narrow paradigms

The way we order the world is partly a function of what we know, or hold to be important. But what we know is also dependent on how we order the world - what we look for, and how we articulate it.

Foucault tells a delightful story whereby his questioning of how we view the world "first arose out of a passage in Borges, out of the laughter which shattered, as I read the passage, all the familiar landmarks of thought - *our* thought, the thought that bears the stamp of our age and our geography - breaking up all the ordered surfaces and all the planes with which we are accustomed to tame the wild profusion of existing things and continuing long afterwards to disturb and threaten with collapse our age-old distinction between the Same and the Other. The passage quotes 'a certain Chinese Encyclopedia' in which it is written that animals are divided into:

- (a) belonging to the Emperor
- (b) embalmed
- (c) tame
- (d) suckling pigs
- (e) sirens
- (f) fabulous
- (g) stray dogs
- (h) included in the present classification
- (i) frenzied
- (j) innumerable
- (k) drawn with a very fine camel-haired brush
- (l) *et cetera*
- (m) having just broken the water pitcher
- (n) that from a long way off look like flies.

In the wonderment of this taxonomy, the thing that we apprehend in one leap, the thing that is demonstrated as the exotic charm of another system of thought, is the limitations of our own, the stark impossibility of [us] thinking *that*" (Foucault, 1970:xv). This delightful illustration reminds us of, among other things, the constraints with which we sometimes saddle and blind ourselves when we carry certain paradigms and taxonomies into areas which call for broad, flexible approaches.

Knowledge of disasters has been heavily influenced by reference to three key fields of information - time location and hazard agent (e.g. The Great 1906 San Francisco Earthquake). This tradition is significant in several ways. In the case of 'industrial' disasters, until recently, it has not identified the company involved; and in the case of 'natural' disasters focus is on the hazard agent. A perception develops of disaster caused by the fire, the flood, the cyclone, the "wall of energy" - the specific and particular 'externality'.

The dominant model (paradigm) still has disasters being caused by hazards. There is recognition of impact but this recognition is generally couched as being due to 'man or his works' being in the way of the hazard agent. The scientific study of hazards has largely driven the way we view and manage risk. This orthodox paradigm continues to be advanced in leading forums. These orthodox interpretations of disasters are characterized by the "sense of causality or the direction of explanation ... from the physical environment to its social impacts" (Hewitt, 1983:5). Additionally, the attractiveness of the 'God as cause' thesis has not been lost on those who can see in it a reasonable basis for either liability reduction or the promulgation of ignorance.

Many current emergency management processes are historical legacies of narrow approaches. Some are reactions to events. The "my turf" sensitivity of organizations with historically derived responsibility for safety defined in relation to particular hazard agents (such as fire) has reinforced a focus on hazard agents and a set of general and widespread assumptions around the belief across communities at risk that "they will rescue me". These assumptions should be challenged - to believe them increases vulnerability. We can not reasonably expect to do today's job with yesterday's methods and be in business tomorrow. In response to pressures for change, approaches to emergency management need to better meet people's needs.



Some of the key shifts needed are summarized below:

☛ FROM only		☛ TO including
Reactive capability	⇒	Proactive approaches
Hazard response	⇒	Risk management
Science driven	⇒	Multi - disciplinary approach
Vulnerability assessment	⇒	Resilience building
Instruction to	⇒	Empowerment of
Dependence on	⇒	Self-Reliance
Planning for people	⇒	Planning with people
Communicating to people	⇒	Communicating with people

**Table 1: Required shifts in emergency management thinking**

These shifts involve a performance migration beyond ‘responding to events’ to embrace the broader set of issues associated with ‘risk and its management’. This issue set involves a focus on vulnerability, not just hazard – seizing on vulnerability as both an indicator of risk and a “window of opportunity”. The purpose of vulnerability assessments is to focus on capacity building opportunities. These shifts are fundamental in nature, involving paradigm shifts which will impact the culture of organizations and the safety of people.

## Towards emergency risk management

At a general level, risk management is sound (systematic and thorough) problem solving. A sound problem solving approach to incorporating stages of scoping the boundaries of the opportunity or problem; finding out about the issues within those boundaries; and making decisions about what to do about seizing the opportunity or solving the problem. Similarly, a risk management approach to emergency management uses a broad, systematic and rigorous approach.

Management	Emergency Risk Management
Problem Definition	Identify Issues & Establish Management Framework
Research	Identify & Characterize Hazards and Vulnerabilities
	Develop Evaluation Criteria
Analysis	Profile Risks
Decision Making	Evaluate Risks
Implementation	Identify, evaluate and implement Capacity Building strategies

**Table 2: The Alignment of Problem Solving and Risk Management**

In emergency management we are switching from an emphasis on response and recovery activities for specific events to an emphasis **on a range of measures to manage risks.**

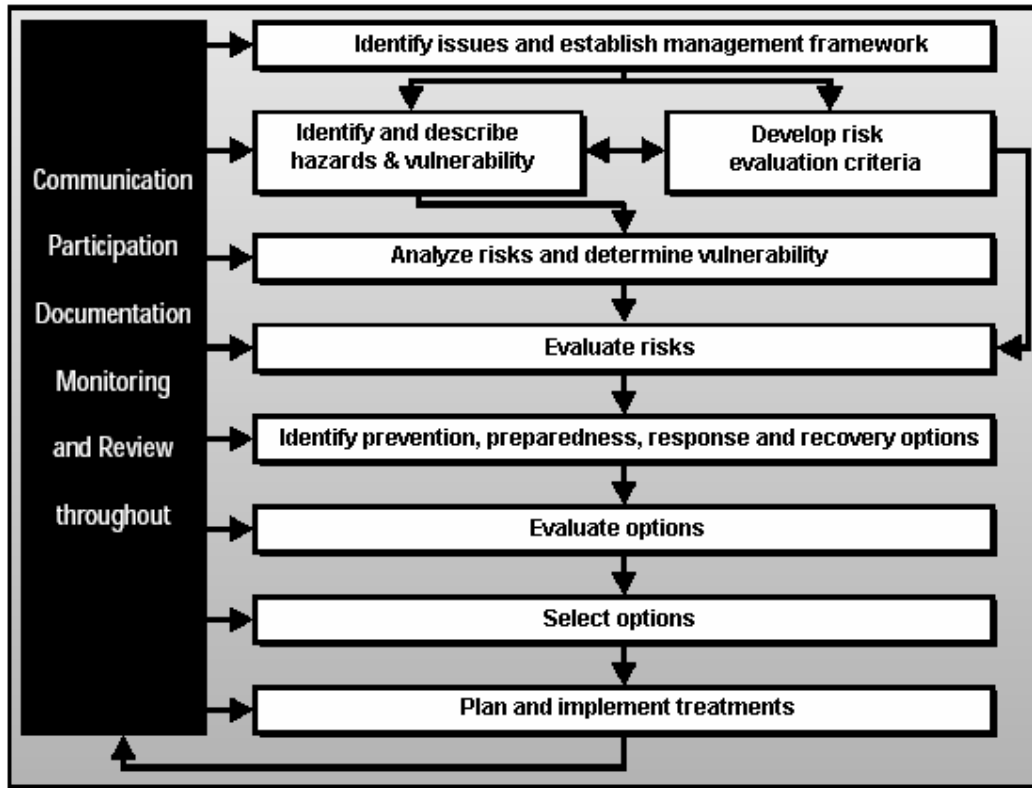
The approach requires clear recognition of distinctions between hazard and risk:

- Hazard, as “something” with the potential to produce harm.
- Risk, as a concept used to give meaning to “things, forces or circumstances” that pose a danger.

Descriptions of risk are typically stated in terms of likelihood of loss (from a hazard).

Emergency Risk management is not merely a tool for analysis / assessment.

**It is a framework for the systematic application of procedures and practices to the tasks of identifying, analyzing, evaluating, treating and monitoring risk.**



**Figure 1 Emergency Risk Management Framework** (Source <http://emergencyriskmanagement.com>)

Successful problem structuring is a crucial first step in developing successful solutions. The management priority is how best to reduce major risks. Yes, considerations related to hazard exposure are necessary elements of emergency management; however they are not sufficient. A comprehensive and integrated taxonomy of emergency management strategies is necessary.

We have adopted, the implications of the construct that  **$R f H \& V$**  (where R = Risk; H = Hazard; and V = Vulnerability). Crucial to this more comprehensive and integrated process is a focus on vulnerability. Vulnerability is about:

- **exposure (primarily proximity to hazard agents)**  
- this is relatively easily “mapped” in geographic space.
- **sensitivity**  
- this is not as easily “mapped” in geographic space, as it occurs in social space.

The development of  **$V f (S \& E) / C$**  (where V = Vulnerability; S = Sensitivity; E = Exposure; and C = Capacity) productively informs resilience building approaches. Indeed, the only reason to analyze hazards and assess vulnerability is to enhance capabilities.

“Community” is usefully defined as any group with a “shared association”. They may be a geographical area or groups with common interests (including business entities and service providers). In terms of “community”, a group may be identified by:

- a) Geographically-based groupings of people such as: households, neighborhood, suburbs, towns, local government areas, cities, regions, states and the nation.
- b) Shared-experience groupings of people such as: particular-interest groups, ethnic groups, professional groups, language groups, age groupings, those exposed to a particular hazard.
- c) Sector-based groupings such as: agricultural, manufacturing, commercial, mining, education sectors. It may be necessary to consider groups within these sectors (e.g., the food processing group within the manufacturing sector).
- d) Functionally-based groupings such as: service providers responsible for systems or networks which provide for the movement of people, goods, services and information on which health, safety, comfort and economic activity depends (lifelines).

The concept of “communities” provides a valuable model for emergency management as it lends itself to collective action. The philosophy behind our approach is one of empowerment. Capacity is about things of “use value” (resources) – considerations include issues such as access to information, cultural knowledge, and social networks. Empowered “communities” (households, organizations or businesses) become increasingly able to deal with more and complex issues. Indeed, the “community” that has established capabilities for building relationships, organizing intervention, and achieving results has taken the valuable first steps to becoming more resilient.

Roger Kaufman (2000:190) employs a framework with a “Focus on the Chain of Results” called MEGA PLANNING. The terminology is a “brand” which requires some interpretation – but it is very useful:

- a) Mega is the first and basic level of planning in which we select our contribution to society, including our clients' well being (above and beyond the goods and services we supply to them).
- b) Only when this Outcome is agreed do we move to the Macro level at which the organization plans to be successful in producing its Output.
- c) At the Micro level, successful groups in the organization integrate to contribute the Products required for Macro success (Output), and Mega success (Outcome).

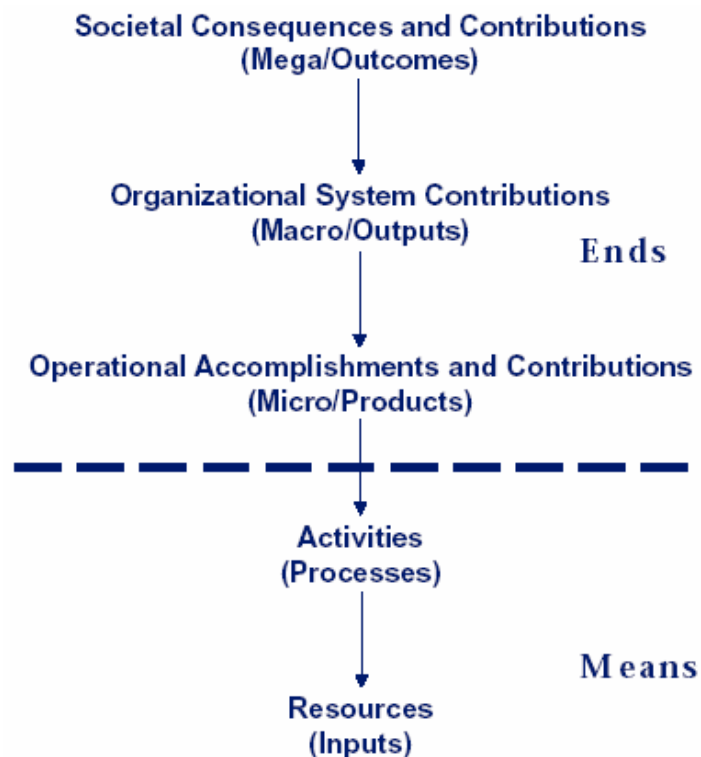


Figure 2: Kaufman’s Chain of Results Model

Kaufman's approach is fundamentally about desired futures – focusing on ends. What do we want the future to look like – what is the gap – (or as Kaufman would say, the need). How do we bridge it? A systems approach – such as Emergency Risk Management, provides an excellent context and framework within which to pursue improvement opportunities – both in process and outcome terms. A fundamental requirement is to have a clear focus on the key capabilities underpinning this Emergency Risk Management framework – hence our nine point self assessment framework.

**Emergency Risk Management initiatives** must identify and characterize the problem and evaluate the effectiveness of capacity building options. How we establish appropriate structures and processes will be fundamental in determining the success or failure of our efforts. The specific structure depends on the particular situation, but five objectives have been identified by the National Academy of Sciences:

- a) Getting the right participation
- b) Getting the participation right
- c) Getting the right science
- d) Getting the science right
- e) Developing an accurate, balanced, and informative synthesis.

This structure has proven to be practical and effective in process and outcome terms.

Key underpinning process principles of such initiatives include:

- a) Mobilize “community” members creatively
- b) Listen - let “community” members define what they believe are the important problems
- c) Raise awareness to the importance of managing risk, and
- d) Develop support for the feasible capacity building options.

Similarly, these process principles have passed the tests of practicality and effectiveness in facilitating processes and achieving outcomes -.

## Conclusions

The identified lessons are always only a limited set. As such, the set will restrain good judgment as much as it advises it. Therefore, be advised by well founded premising - but anticipate ambush anyway.

The relevant matters to take into account in considering the quality of management exercised center around key performance tests about your state of knowledge and its application. They focus on considerations around what you ought to know (or be reasonably expected to find out) about (a) risks and (b) their fixes.

In particular, these tests are about:

**(a) Assessing risk severity:**

- i) To what extent can and ought you reasonably be able to foresee the extent of harm likely to be caused.
- ii) How do you ensure that you exercise “sound” judgment around probability & consequence?

**(b) Maximizing intervention opportunities:**

- i) To what extent can and ought you have control over the things which are likely to give rise to the harm likely to be caused.
- ii) How do you consider the practical measures which can be taken to prevent, control, abate or mitigate the harm; how do you ensure that you exercise “sound” judgment around “cost effective” available capacity building options?

Planning should be about building capability - especially with regard to **Problem Solving and Opportunity Identification**. Approaches based on emergency risk management provide a flexible and holistic framework to better advise emergency preparedness. Analyses focused on vulnerability will by identifying processes that bring about risk, highlight management options which address key underpinning features, structures and processes. In summary, emergency risk management approaches will better enable the identification and implementation of capacity building options which meet your needs. If we can help you in strengthening your approach, contact us at [epcb@emergencyriskmanagement.com](mailto:epcb@emergencyriskmanagement.com)

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