

## **Disaster Risk Management**

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### **Introduction**

An important part of the Total Disaster Risk Management approach is the disaster risk management process. I will outline the Australian experience with risk management and how that was developed into disaster risk management. In particular I will outline the development of this process in the South Pacific. This was sponsored by SOPAC. It is a very good example of change within developing countries. The second part of the paper will outline the main components of the disaster risk management process.

Risk management based the Australian Standard AS/NZS 4360 is now a foundation for management both in the private and public sectors. At a recent seminar in early 2002 for Chief Executive Officers a number of the most senior managers in the Australian Public Service described how they were using and integrating risk management into the culture and management practices of their organisations.

They developed a number of key themes:

- Support from senior management is critical
- Developing a risk management across the whole organisation is vital.
- Risk management is a core element of good management practice
- Risk management needs to have a holistic approach
- Risk management helps break down silos and divisions in organisations better understanding of objectives.
- Risk management integrates a systematic way to make informed decisions.

The following direct quotes by senior officials very clearly put the case for the importance risk management has assumed as a core management responsibility and a fundamental part of good governance.

“Risk management must balance the tension between present -day demands and preparations for the future and the enduring success of any enterprise. A risk management framework requires continued attention and support from senior leadership” *Alan Hawke, Secretary of the Department of Defence*

“We are helping managers to better understand and integrate risk management as a key component of corporate governance and a vital part of operating in today’s public service”.

*Dr. Ian Watt Secretary of the Department of Finance and Administration*

“Risk management can provide an opportunity, when you select the right mitigation response, to advance the program management, or policy agenda”

“You can embed risk management into business planning so that your business planning is not just silo-by silo”. *Ken Mathews Secretary of the Department of Transport and Regional Services.*

“It is important to note, therefore, that effective risk management is all about managing the entirety of risks” *Dr. Neil Johnston Secretary of the Department of Veteran Affairs*

“We spend a fair bit of time in terms of our risk management in understanding just what makes our business work every day. The bottom line is you have to plan” *Mark Sullivan Secretary of the Department of Family and Community Services.*

“from the commercial world, crosscutting issues with major projects were simply often not picked up. Many executives and middle level managers were very skilled but they simply did not understand the requirements of an adjoining area, even within the same department”. *A council member of the Australian Institute of Company Directors*

## **From risk management to disaster risk management**

The high level of support for risk management across all levels and sectors was

very important environment and a excellent opportunity for the disaster management sector to take on a framework and process that would be readily accepted by all players outside disaster management. In 1995 EMA convened a national committee representing the disaster management sector to develop the Disaster Risk management process based on the Australian Risk Management Standard AS/NZS 4360. A nationally accepted version was finished in 1998 and has steadily been implemented since that time across Australia. There has been a very steady growth in risk management internationally for example

- Australia and New Zealand (AS/NZS 4360) 1995
- Japan (JIS Q 2001) and Canada
- International Standards IEC/ISO RM Vocabulary ISO 73
- European Union Project to develop Risk Management Standard over the next 3 years
- Pacific Area Standards Congress (PASC) is in its 25th year. This congress includes many Asian countries. The next meeting will be held in Vietnam in 2003.

So it is likely that many Asian countries will develop or adopt a risk management standard.

### **CHARM a case study**

In the Pacific countries they have developed their own risk management based process. It is called Comprehensive Hazard and Risk Management or CHARM. In their documentation they give the rationale of the process as: "To integrate recognised risk management practices within the development planning processes of countries". The main drivers for change they identified are:

- Sustainability: achieving social, economic and environmental goals.
- Effective management of resources
- Donor confidence
- Need for holistic risk management.

In reaction to those drivers they have developed a system they believe has the following key attributes:

- A mechanism for establishing formal links and collaboration between

stakeholders.

- It is linked to national development planning (social, economic and infrastructure).
- It assists in establishing and prioritising development activities.
- It facilitates collaborative partnerships between NGO's, public and private sectors.
- It is linked to existing national and regional mechanisms and programs.
- Based on AS/NZS 4360 RM Standard.

## **Disaster risk management**

Disasters are a major drain on all societies but they are particularly devastating for developing countries. Resources are limited and hard won achievements can be eroded very quickly. Disasters are a major challenge for all people and organisations working to achieve better outcomes for society. They are complex social occurrences which require significant effort by many different sectors and groups within society to manage the risks associated with them. They are very complex requiring action by a wide range of sectors across many jurisdictions.

There is no doubt that taking an holistic approach is the only strategy to deal with the complexity. However what is needed is a process and framework to enable a holistic approach. This does not only include breadth of sectors and levels but also in the range of activities that might be employed to deal with disasters. We want to mainstream disaster management. Disaster Risk Management is bringing together the goals of action in disaster management with the process, structures and rigour of risk management.

For example at a community level to achieve sustainability it is important to have a process for people to think how they can have better lives by protecting what they value and managing the risks associated with development. Risk Management provides a framework to enable people to think and discuss how

they can deal with situations which may lead to them not meeting their objectives. It is therefore an integral part of the development process. Appropriately organised and supported risk management can provide a framework for this dialogue which values local knowledge and indigenous ways of knowing. If people participate and have a shared understanding/ownership of problems they are more motivated to act.

Because of the complexity and the highly variable context of each country, a very flexible approach to integrating and coordinating sectors and levels can be achieved through risk management.

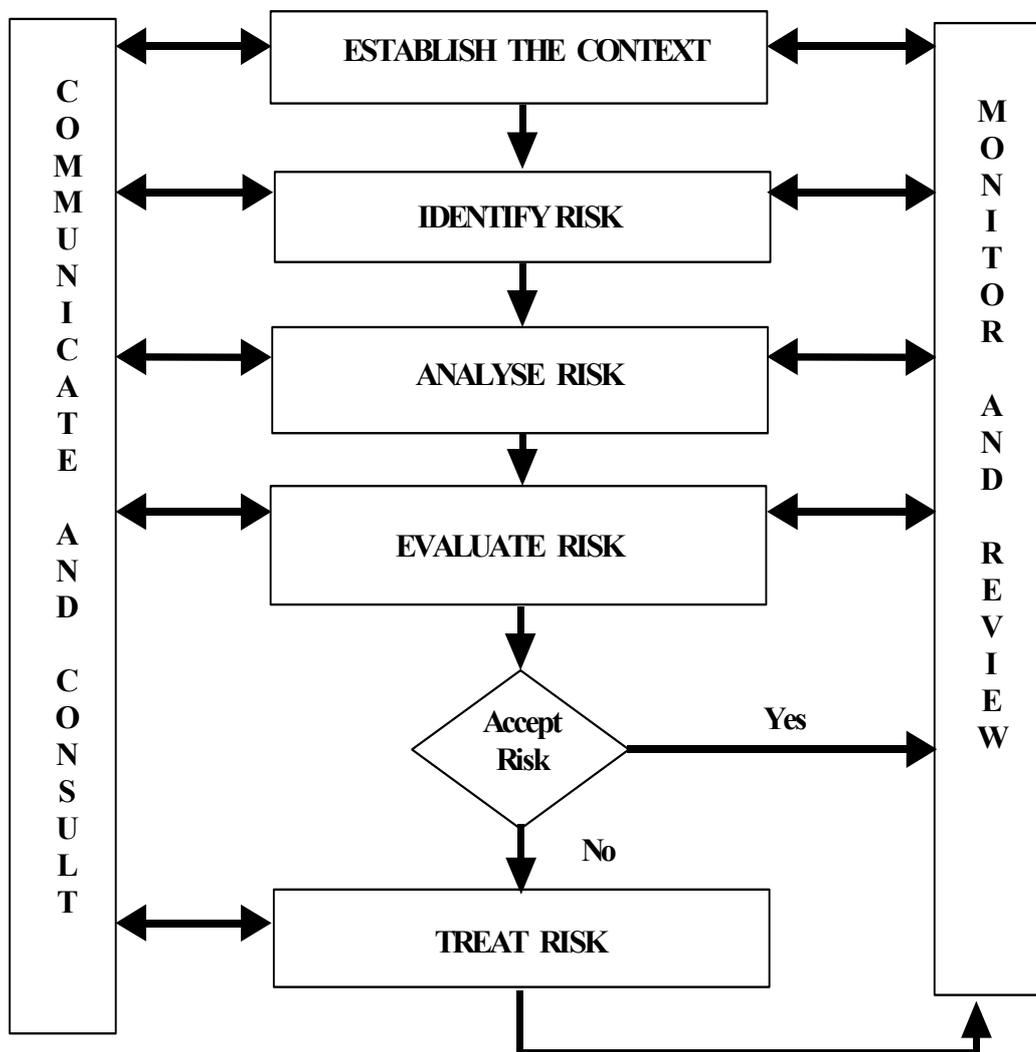
The other key concept is that Disaster Risk Management is an integral part of good governance. On any scale from a small local committee to a national government managing risk is an integral part of getting where you want to go.

The ultimate goal is for everyone to use this simple process to think about what they want to achieve and how disasters impact on those objectives. We must take on board that these fundamental questions about how people live in a sustainable way are not amenable to being defined as simple issues of lack of data or information. These problems are firmly rooted in the social and political arena and there need to be processes available to assist in dealing with them.

Disaster Risk Management is a very flexible process which is suitable for any context from an individual to a whole nation. Some people say it is just a tool but it is really a way of thinking. It is not a function for specialists; they may contribute information but in the final analysis it is everyone's responsibility to participate. The real strength of using risk management is that everyone has a role to play in achieving safer sustainable communities. It provides a common language. It is a way of thinking for different levels of government and sectors to engage and contribute to achieving the goals for that society/community/group. There of course are no simple answers because there will also be disagreements in what are the objectives of the community or organisation. This process makes it transparent. In the past it has always been there, hidden in complex language which marginalised people.

The crucial idea is that risk management must be an integral part of any development program or investment of resources which aims at sustainability. The Australian Risk Management Standard is defined as *“the culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects”* and the risk management process as *“the*

## Emergency Risk Management Process



*systematic application of management policies, procedures and practices to the tasks of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risk”.*

In plain language the steps in the process are:

Establish Context	<i>What are we trying to do?</i>
Identify risks	<i>What can happen?</i>
Analyse Risks	<i>What effects will they have on what we value?</i>
Evaluate risks	<i>Which are most important?</i>
Accept risk	<i>Should we spend resources on this problem?</i>
Treat risk	<i>What can we do about this problem? What are we going to do about this problem?</i>
Monitor and review	<i>Has it worked, is it still best solution?</i>
Communicate and consult	<i>Has everyone been involved?</i>

In the disaster management context, the main elements of the disaster risk management process are the following:

**Establishing the disaster risk management context** is the foundation for the process. This establishes the crucial relationships between stakeholders so it is very important part of the process. This step outlines the broad boundaries or scope of the process. Which range of risks to what objectives will be considered? Who are the key stakeholders? This stage cannot be too prescriptive because it must reflect needs and aspirations of the participants. Once the broad context has been set it is necessary decide and record the roles and responsibilities of the participants and the administrative structure. Much patience is necessary because it sets the tone and relationships for the rest of the process. To build confidence in and acceptance of the value of the process takes time.

The appropriate level is very important the source of risk eg cyclone may be the same but the effects on elements at risk will depend very much on the level or scale adopted for a particular situation. A village or a nation may both identify Cyclones/Typhoon/Hurricane as a source of risk but the elements at risk at these levels would be different. For example a national government will be

responsible for protecting major infrastructure whereas a village will have a very local focus. Also the resources available and the types of treatment strategies appropriate will depend on the level.

**Identify the disaster risks.** This step identifies what hazards could occur and what would be the consequences for community/society under consideration. This is a very useful activity for all participants to contribute their knowledge and values. Local experience can be extremely valuable in avoiding costly mistakes.

**Analyse the disaster risk.** Once lists of risks have been generated they have to have estimations of likelihood and consequence allocated to them. The analysis should consider how likely is an event to happen, and what are the potential consequences and their magnitude. The analysis results in an estimation of the level of risk.

**Evaluate disaster risks.** This step aims to rank risks in order of priority in order to make judgements about which ones are going to have resources allocated to them. Any group will be faced with a long list and choices have to be made about which risks are to be treated given limited resources.

**Treat the disaster risks.** There are four broad activities in this section. Identify and assess treatment options, prepare and implement treatment plans. If stakeholders are not committed by this stage very little will happen. It is also a great opportunity for communities to be very creative in coming up with local solutions to problems. It is very important that participants have access to the experiences of other communities going through the process.

**Monitor and review.** It is important to check to see if the process is on track and changes to the environment have been included. These changes may include building new infrastructure, introducing a new technology, new scientific information about a hazard etc. and ensure that the disaster risk management plan is relevant. The entire process is iterative.

**Communicate and Consult.** It is essential for ALL stakeholders to have an appropriate level of input to the process. If stakeholders develop ownership as they define problems, then they are much more likely to be committed to participating in the implementation of solutions.

## **Conclusion**

The main themes running through disaster risk management is the need to ensure that the process involves all relevant stakeholders. This is not only important in getting the problem properly defined it will also be very important in getting buy in and this will make the implementation of solutions much more effective. Other important themes developed were the need to balance resources allocation between risk assessments and the implementation of solutions. The need depending on context to balance efforts between response and mitigation activities.

Risk Management provides a common framework and language which now has general acceptance in industry, engineering, business and other relevant fields. This is important in facilitating coordination and collaboration in a multi-sectoral environment. The adoption of this approach facilitates the effective use of very scarce resources. This can be achieved through the implementation of an appropriate disaster risk management process.