

WATCH OUT FOR TERRORISTS AND BIRDS?

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ABSTRACT: The paper discusses disaster risk assessment from a governance perspective. The paper suggests that it is of critical importance to integrate disaster risk assessment and government administration, and introduces a methodology intended for that purpose. The methodology focuses on understanding the complex relationships between hazards, threats, planned outcomes, assets, countermeasures and risk in order to reduce disaster risk.

KEYWORDS: disaster, risk, disaster risk assessment

1. INTRODUCTION

Governments are meant to protect their citizens. According to Canada's *National Security Policy*, "There can be no greater role, no more important obligation for a government, than the protection and safety of its citizens." To that end, the Government of Canada and others are warning: watch out for terrorists and birds (i.e., the bird flu).

Immediate countermeasures are required, our governments tell us, otherwise the lives lost and dollars cost will be measured in thousands, millions and even billions.

Recommended countermeasures for the two hazards include: hosting international conferences; stockpiling drugs for some of the population; culling millions of chickens and ducks; detaining individuals without charge; drafting contingency plans; and pledging, or loaning millions of dollars.

Governments acknowledge that some countermeasures may curb civil liberties; increase food insecurity; and violate rules of intellectual

property. The general refrain is that the countermeasures are the lesser evil.

The assumption is that the information is provided to audiences, in order to help them control risk to themselves or to others, and to minimize unwarranted fear and anxiety. The problem is that there is little or no evidence of disaster risk assessment. The information offered by governments may not be particularly helpful and could be harmful. The information begs the question: how can you say that?

At best, governments are withholding the disaster risk assessment. At worst, they don't have it. In the absence of disaster risk assessment, there is little assurance that governments are adequately or appropriately prepared for disasters triggered by terrorists, birds or any other threat.

A disaster risk assessment would include: multi-impact information beyond human health and insurable losses (e.g., impact on human rights, sustainable natural environment); multi-hazard information beyond priority hazards; clear

information that avoids the use of popular labels (e.g., terrorism); and prioritized information ranking threats and countermeasures.

It is of critical importance for governments to build this understanding of disaster risk and decide on reasonable countermeasures, rather than to react from a passion or a prejudice, a political strategy, or an emotion of the moment.

The consequences of failure are significant. By definition, a disaster affects humankind, including much more than lives lost and dollars cost. Disasters impact a broad range of interests including access to basic services, human rights, integrity of relationships and the sustainable natural environment.

Generally, but not consistently, the impact is negative. For government, private sector and civil society actors, a disaster generally means responsibilities are not met, commitments are not kept and expectations are shattered. The impact is compounded by the fact that the failures or setbacks often contribute to susceptibility to future disasters.

There are over 35 million refugees and internally displaced people in the world living in human settlements in crisis - situations featuring armed conflict, population displacement and food insecurity. They are among the most vulnerable of the human family. In particular, they have already suffered some of the highest rates of illness and death ever recorded.

Disasters postpone national development programmes and contribute to worsening already precarious social, economic and environmental conditions, particularly in human settlements in crisis.

Somehow, we have become pre-occupied with confronting disasters and we haven't taken adequate steps to understand disasters. We pay a very high price for this oversight. The poor pay the highest price.

This is neither an academic nor a technical paper. It is a concept paper based on professional experience with persons involved in, affected by and interested in the influence of disasters, in Canada and around the world.

This perspective is important. It is not enough for academics and specialists to understand disaster risk. It must also be understood by decision-makers and citizens. Otherwise, how can we hope to reduce disaster risk?

1.1 Objectives

The goal of this paper is to promote the integration of disaster risk assessment and government administration. After a discussion of the importance of effective disaster risk assessment, the paper suggests a methodology designed to take a government from talking about disaster risk assessment, to focusing on how to do it and getting things done.

Definitions of governance generally include three principal actors: government, the private sector and civil society. Disaster risk assessment is an important responsibility for each actor, but this paper focuses on government.

While there are some generally accepted terms and concepts, terminology for disaster risk management is the subject of some debate. Therefore, the first part of the paper explains the intended meaning of keywords and concepts.

2. KEYWORDS

In the context of this presentation, the following definitions and concepts apply.

2.1 Disaster

A disaster is a serious disruption of the functioning of a community or a society causing widespread losses which exceed the ability of the affected community or society to cope using its own resources.

2.2 Risk

Risk is the measure of the likelihood and the impact of a threat with the potential to influence the achievement of planned outcomes.

The significance of this definition is twofold. First, it links risk and governance. Second, it does not specify that the impact of a disaster is negative. The impact may also be positive. The role of governance, therefore, is to optimize the impact of disasters.

2.3 Disaster risk assessment

Disaster risk assessment is a process to provide objective information for making decisions on countermeasures to reduce disaster risk.

The stages of disaster risk assessment include hazard identification; vulnerability analysis; capacity analysis; risk analysis; and risk evaluation. Risk communication is important at each stage of the process.

3. IMPORTANCE OF DISASTER RISK ASSESSMENT

Disasters are not natural. They are a product of our socially built environments and they reflect the type and level of countermeasures to deal with threats. That means, a government may increase or decrease

disaster risk. Disaster risk assessment answers the question: are we making it better or worse? Given reports of increasing frequency, intensity and cost of disasters, it would seem prudent to be able to answer that question.

There is a wealth of data and tools for hazard identification and vulnerability analysis. For example, there is information on the location, intensity and likelihood of earthquakes in many parts of the world. Many cities have identified hazards and assessed the vulnerability of critical infrastructure. What is lacking are tools and information on risk. The deficiency is compounded when officials use incomplete information for making decisions on countermeasures.

The human condition dictates that officials avoid complex issues; fail to admit uncertainty and ignorance; ignore or misunderstand early warnings; and are easily distracted by high profile events and perceived threats.

Without even mentioning political agendas or fear mongering, this demonstrates why disaster risk assessment is important. Disaster risk assessment provides an overall understanding of the complex relations between hazards and governance, particularly the likelihood of government achieving planned outcomes.

When this understanding exists, a government can decide on reasonable countermeasures including: mitigation; prevention; response and relief.

With a disaster risk assessment in-hand, a government can prioritize countermeasures: ranking threats in order of risk; ranking threats in order of potential for risk reduction; and ranking disaster countermeasures compared to

countermeasures for threats other than disasters (for example, financial risks).

With a disaster risk assessment in-hand, governments can engage in effective risk communication. Finally, when other governments, the private sector and citizens have access to the disaster risk assessment, they can hold government accountable for disaster risk management.

Credibility, transparency and accountability: these are the reasons why disaster risk assessment is important. This is why we need to change government by integrating disaster risk assessment and administration.

Having criticized the present situation with respect to disaster risk assessment, this paper now presents a methodology designed to integrate disaster risk assessment and government administration. The methodology is called Due Discipline™.

4. METHODOLOGY FOR DISASTER RISK ASSESSMENT

The methodology is best understood in the context of a simplified case study.

In 2003, the mission of the French healthcare system was: to achieve full health potential for all. The planned outcomes of the system included: accessible, available and affordable healthcare; policies and programmes for the prevention of disease and premature death.

The assets used to achieve those planned outcomes included, but were not limited to: budget; equipment and materials; real property and workforce.

In the time leading up to the summer of 2003, it is reported that hospitals had been starved of funds and they had no margin for unanticipated situations, and lacked the wherewithal to hire additional staff.

It was common during summer months for hospitals to decrease the number of available beds and close down whole sections. Significantly, French hospitals were reportedly forbidden by law to have air conditioning out of fear the ventilation systems would spread disease.

With respect to workforce in 2003, the August leave system meant hospitals were understaffed; expecting less rather than more patients. In particular, there was a mass departure of doctors on holiday and, in terms of the national government, cabinet was absent.

All of this is significant because it opened exposure pathways for a heat wave to influence the achievement of the healthcare system's mission and planned outcomes. In the absence of effective countermeasures, a heat wave was a threat.

A heat wave began in Europe in June 2003 and continued until mid-August. Temperatures were 20 to 30 per cent higher than the seasonal average over a large portion of the continent. In France, high temperatures lasted about two weeks in August and soared to 40 degrees Celsius within that period.

Paris officials reported more than 2,600 excess emergency department visits, most of them classified as heat related, and 1,900 excess hospital admissions.

French officials reported a sharp increase in the number of heat related deaths. On August 4, 300 excess deaths were observed. Excess deaths

progressively increased until August 12, reaching 2,000 per day, and then rapidly declined in the following few days. Close to 15,000 casualties were recorded for the month of August (counting the number of deaths over and above what would normally be expected for the month). Due to the increased deaths, morgues and funeral homes ran out of space, and some of the dead were left for days where they had perished.

The heat wave negatively influenced the mission and planned outcomes of the French healthcare system as well as other government, private sector and civil society actors. This disaster was the product of their combined inability to deal with the threat.

Even this simplified case study shows the following: while hazards are in many cases beyond the control of government; vulnerability reduction and countermeasures are definitely within their sphere of influence. What they need, first, is a disaster risk assessment.

The methodology under discussion is Due Discipline™. It is designed for individual organizations – for example a government or a government department – to conduct a disaster risk assessment.

In the most basic terms, the methodology requires the organization to assemble information on its context, hazards, planned outcomes, assets, threats, countermeasures, and risk. The information is assessed using each level of information to answer questions in the next level.

The following is a brief description of some of the most important features of the methodology.

The disaster community is typically characterized by fragmentation along disciplinary and institutional boundaries. The Due Discipline™ methodology is not limited by the bounds or dictates of a single discipline or organization. It relies on information from and participation of social, behavioral, natural and engineering sciences.

Due Discipline™ is comprehensive and precise in terms of hazards. The methodology includes a list of over 90 candidate hazards including natural hazards, accidents and intentional acts.

The list is populated using precise terms and definitions, not popular labels. The rationale is that you can neither assess nor plan for popular labels. Global warming and terrorism are examples of popular labels. The precise hazards, not the labels, are included in the list of candidate hazards (e.g., flood, drought and hazardous material release),

Due Discipline™ assesses risk in terms of the organization's planned outcomes, the related activities and the required assets. This expands the assessment away from lives lost and dollars cost to include: access to basic services, economic health, human health, human rights, integrity of relationships, and the sustainable natural environment.

Due Discipline™ makes a clear distinction between hazards and threats: a hazard is defined as a source of potential harm; a threat is defined as the combination of the presence of a hazard and an exposure pathway by which the hazard can influence assets, activities and ultimately planned outcomes. This distinction assists the organization to filter hazards information (i.e., terrorists and birds) and focus on relevant threats.

Due Discipline™ generates detailed information for each threat: (1) a narrative description of the scenario which is severe enough to cause a disaster; (2) the likelihood of that scenario (measured as meantime between events); (3) the impact of the threat on assets needed to accomplish planned outcomes; (4) the likelihood of the impact influencing planned outcomes (given existing countermeasures); (5) and a qualitative assessment of the influence of the threat on planned outcomes.

The volume of information can be considerable. However, through the use of colour coding and consistent layout, the information is available at a glance.

The Due Discipline™ methodology does not include identifying, ranking selecting or implementing new countermeasures. Instead, Due Discipline™ supports organizations by providing reasonable information for the following: establish criteria for priority setting; identify courses of action; define advantages and disadvantages of each countermeasure in the course of action; compare courses of action; and recommend courses of action.

In brief, the Due Discipline™ methodology empowers the organization to identify and select reasonable and defensible countermeasures.

5. CONCLUSION

This paper looked at disaster risk assessment from a governance perspective and promoted the integration of disaster risk assessment and administration.

Failure to move in this direction raises serious problems for the future. Governments that do not have the discipline and commitment to understand and control explosive hazards such as earthquakes

are not likely to understand and overcome corrosive hazards such as HIV/AIDS.

Governments that do not have the discipline and commitment to understand the risk from disasters in their own context, are not likely to be concerned with how they influence the risk of other governments, the private sector or civil society.

In closing, these words are from the United Nations Secretary General Kofi Anan.

In a world of interconnected threats and opportunities, it is in each country's self-interest that all challenges are addressed effectively. Hence, the cause of larger freedom can only be advanced by broad, deep and sustained global cooperation among states. The world needs strong and capable states, effective partnerships with civil society and the private sector, and agile and effective regional and global intergovernmental institutions to mobilize and coordinate collective action.

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