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Sense and Sensibility about Terrorism: A European Perspective

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Abstract This paper discusses four themes: the importance of the terrorism threat relative to other forms of crisis and disaster; paradoxes and possible distortions in how it is perceived and managed; the use of fear and aggrandisement to exaggerate the threat; and the probable impact of the increasing application of surveillance technology. It is argued that the magnitude of the terrorism threat is difficult to assess in realistic terms, but the importance attributed to it may have a significant impact on the resources devoted to combating other forms of disaster. The remilitarisation of emergency management is discussed in relation to the needs of civilian populations and the long rise of non-military forms of command and control. Weaknesses are identified in the prevailing strategy to encourage the strong development of surveillance technology and other counter-terrorism measures. Finally, the article offers a generalised prescription for sustainability in emergency management.

Key words Civil protection; Civil defence; Emergency management; Emergency planning; Surveillance; Sustainability; Terrorism

As I was climbing up the stair,
I met a man who wasn't there.
He wasn't there again today;
Oh how I wish he'd go away.

1. Introduction

In Europe today there appears to be an increasing separation between civil defence and civil protection.[2] The strength of the Transatlantic alliance, hence of American influence upon European policy, and the apparent magnitude of the terrorism threat have led to a resurgence of civil defence as a centralised, often secretive and authoritarian means of protecting the public, in an epoch which for a time appeared to lead to its eclipse by the more democratic, inclusive civil protection (Alexander 2002).

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[2]Born in its modern form in response to air raids in the first half of the twentieth century, civil defense primarily seeks to defend the state and its non-combatant citizens against armed aggression by malign powers, while civil protection, which developed in the 1970s and 1980s, mainly in response to the increasing toll of natural disasters, seeks to develop non-military responses to crises, disasters and public order problems (Alexander 2002).

Discussion in the safety and security field is hampered by chronically imprecise use of terminology. 'Civil protection' is in some sense a successor to civil defence, and in it the local level of organisation should be paramount. It should be a democratic, participatory system (Figure 1). This does not preclude different models of organisation, but it does indicate that when disaster strikes the local area is always the theatre of operations (Quarantelli 1996). In reality, civil protection should not have an entirely 'bottom-up', or grass-roots, form of organisation, but it needs to be harmonised by the higher levels of public administration in order to ensure that strategies for managing large events are compatible between jurisdictions. Nevertheless, the bedrock level of civil protection is the local municipality, which must develop capacity to plan for and manage adverse events. This level is also significant because of its strong connection with local people, who are the beneficiaries of civil protection work (Alexander 2006). As good risk management and disaster prevention require the public to assume some of the responsibility for managing risks, increasing public involvement is essential, and this can best be accomplished by civilian organisations, working under a system that has close links with the public.

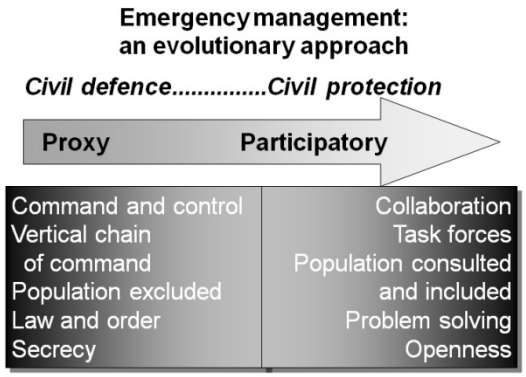

Figure 1. Evolution of emergency management.

In many countries, civil protection (as described in the previous paragraph) has been somewhat eclipsed by the resurgence of civil defense, which has allowed emergency preparedness to become subsumed to the 'security agenda'. In modern Europe and North America this appears to be driven by the threat of terrorism and epidemics, but is this reasonable? Terrorism and influenza are topical and undoubtedly genuine risks, but many natural hazard risks are much more amenable to prediction than is terrorism or even a continent-wide pandemic of infectious disease. We therefore face an "asymmetric threat" (Furedi and Taylor-Gooby 2002) in more ways than one: not merely is a clandestine enemy pitted against the massed forces of law and order, but also a measurable set of hazards is contrasted with a largely immeasurable one.

There is currently a need for an unbiased assessment of the relative balance of major hazard threats (Mitchell 2003). Too many of the policy advisors have a vested interest in inflating or dramatizing certain risks. Funding has become skewed towards the investigation of terrorism threats and the formulation of counter-terrorism policies at the expense of natural hazards research. However, it is very difficult to make a rigorous, comparative assessment of the threats. Terrorism and epidemics, in particular, depend on chains of causality and association that have, by and large, not been well investigated (Berkes 2007). Whereas magnitude-frequency relationships can be computed for most natural hazards, the shear arbitrariness of terrorism and rareness of catastrophic epidemics in Western countries make the

relationships impossible to calculate for such contingencies.[3] As a result, there will always be an element of arbitrariness in national risk reduction policies and in the assessments of threat levels used to support their formulation.

One explanation for this concerns how risk is perceived. The seminal work of Douglas and Wildavsky (1982) showed that perception of risk is culturally constrained. Moreover, to be properly explained, it needs a psychological as well as an anthropological interpretation (Fischhoff 1996). However, this does not necessarily throw it open to democratic processes. Tellingly, Tierney (1999, p. 224) observed that "the ability to conduct risk assessments that are considered authoritative is monopolised by a small number of organisations and analysts." She further noted that these tend to be very close to the interests of the military-industrial complex. As a result, when Tierney (p. 234) discussed "the state's role in the creation of risk", she was dealing with the fact that the people who bear the risks (in this case, the general public) may be neither those who created them nor those who define policy for managing them. In civil defence and counter terrorism preparedness, we are thus a long way from the kinds of democratic participation in risk management that Long and Fischhoff (2000) described. Nevertheless, it remains clear that risk is a social construct as much as, or more than, it is a technical one (Bradbury 1989).

In this article I do not propose to offer an alternative risk assessment to those used at the present, but instead I would like to explore some ideas that might help us to attain a more balanced approach, one that is not conditioned by any need to dramatize or distort risks in order to make a career out of managing them. Accordingly, this paper tackles four themes: the importance of the terrorism threat relative to other forms of crisis and disaster; the paradoxes that lead to distortions in how it is perceived and managed; the use of fear and aggrandisement to exaggerate the threat; and further distortions related to the increasing, and perhaps excessive, application of surveillance technology. The article ends with a decalogue of sustainability concepts in emergency management.

2. What is the magnitude of the terrorism threat?

The US National Security Strategy for the year 2006 began with President George W. Bush's words "My fellow Americans, America is at war" (US Federal Government 2006). Representatives have spoken eloquently in the US Senate about "America's war on terrorism"[4] and right-wing think-tanks have published bellicose pamphlets along the same lines (Ayn Rand Institute 2002). The United States did go to war with the Government of Iraq and has conducted enduring military operations in Afghanistan, although these are more in the nature of an extended 'security operation'. Yet America is not at war with terrorism: the "enemy" is too diffuse and fragmented, the conflict is too low in intensity and the conditions associated with modern terrorism do not permit it realistically to be tackled with any methods that would be recognised as warfare. However, there is no doubt that the terrorism threat is a serious one that requires exceptional measures.

The question of attack scenarios is equally paradoxical. For example, 19 months before the terrorist attacks of 11 September 2001 the Rand Corporation held a conference in Santa Monica, California, on the biological terrorism threat to the USA (Rand Corporation 2000). One scenario that was presented in detail at the symposium described the dissemination of anthrax spores from a light aircraft flying over Los Angeles and San Francisco. The predicted death toll was one and a half million. Hospitals would be overwhelmed by the dead and dying, and doctors and nurses would succumb to the disease as rapidly as

[3] However, models do exist for the calculation of avian influenza fatality rates. For example, according to the parametric model FLUSURGE-2.0, the city of Florence, Italy (population c. 400,000) could in only eight weeks experience 4000 hospitalizations and 885 deaths from influenza (Cambakis 2008). The results of this simulation are essentially unverifiable.

[4] Senator Mitch McConnell, Remarks in Congress in the NSA Terrorist Surveillance Program, 8 February 2006.

their patients. When in the Fall of 2001 anthrax was used as a terrorist weapon in the United States there were only five victims (Jernigan *et al.* 2001). This does not mean there was no potential for mass casualties: instead it suggests that a wide range of possible scenarios exists and the one formulated at the Rand symposium was perhaps not the most likely.[5] It also suggests that risk assessment of the terrorism threat is a chimera. On the other hand, the destruction of the World Trade Centre using hijacked commercial airliners was not considered a likely scenario, but it did happen.

Rather than defining the global magnitude of the terrorism threat, these facts indicate a level of continuing uncertainty about it. Moreover, one cannot necessarily rely on experts for a disinterested opinion. The end of the Cold War led to a brief period, approximately 1990-5, in which there was an opportunity to dismantle parts of a formidable military machine, one that had become bloated in response to a desire to outspend the Soviet bloc on strategic resources. Here was the so-called "peace dividend" that proved to be illusory: it peaked in 1994 and then went into a decline. In reality, the economic and technological apparatuses might have been dismantled, or at least wound down, but the culture and attitudes of the Cold Warriors proved more resilient. The mental shift required to forge the peace was too difficult to achieve. There were also too many vested interests in the manufacture of 'defence systems', consulting on strategic planning and even academic 'think-tanks'. In short, the 'Cold Warriors' have found a new ‘raison d'être’ in global terrorism.

In all probability, the magnitude of the terrorism threat has much to do with the major powers' policies and operations in the belt of land that stretches from the Bosporus to the Hindu Kush, the Caucasus to the Arabian Sea, especially in terms of the extent to which jihad, vengeance and radicalisation are consequences. That is an exceedingly open question (Rashid 2002). In recent years the global trend in terrorism has been one of a steady increase in the number of outrages, albeit with a shifting locus of activity. However, there have also been increases in the impacts of natural hazards (IFRCRCS 2010). This raises the question of the relative balance between the two forms of disaster, which is thrown into sharp relief by the possibility that climate change may increase the intensity of the largest meteorological events (Changnon 2003).

In total, 52 innocent people were killed in the London bombings of 7 July 2005, but at least 110,000 died in the Strait of Messina earthquake of 1908, one of the most recent seismic events in Europe to have had an epicentre close to a major concentration of urban population (Tinti and Armigliato 2001). On the one hand, this means that death tolls are not a reliable guide to the level of importance that society attributes to catastrophic events, but on the other hand, the magnitude of the two disasters was clearly different in objective terms. There is potential for even greater loss of life. In 1631, all 4000 inhabitants of Portici on the flanks of Mount Vesuvius in Italy were annihilated by pyroclastic flow. The current population of the town is 80,000 and Vesuvius may be due for a major explosive eruption (Spence et al., 2004). In fact the 1631 explosion is used as the reference event for emergency planning in the circum-Vesuvian area, which has a vulnerable population of between 650,000 and 3.1 million people (DPC 1999). In the Canary Islands, caldera collapse could cause a major tsunami which would inundate the Atlantic coasts of Europe and the Americas (McGuire *et al.* 2002).

These are examples of some of the events that could change the perceived balance between terrorism and natural hazards. However, it is not sufficient merely to react to major natural disasters, it is essential to prepare for them, and the process must start with policy decisions about the relative level of resources to be dedicated to the problem. Wrong priorities that lead an under-resourced response could create another Hurricane Katrina-style debacle in which institutions are unable to respond adequately (Cooper and Block 2006). The Katrina relief failures were, in part, the result of lack of adequate connections between organisations that participated in the emergency response, but the resulting debacle was also symptomatic of deeper divisions in society (Tierney 2006), as the next section illustrates.

[5]However, controls on people who sought flying instruction courses or hired aircraft increased dramatically after 11 September 2001 and thus the opportunities to disseminate biological weapons by air diminished.

3. If America is at war, Europe is at odds

In general, modern emergency preparedness embodies some odd paradoxes (Alexander 2000, pp. 238-247). In the words of one expert in the field (Ann-Louise Ekborg of the Swedish Emergency Management Agency), "the public expects good governance, but often with less government". At the same time, modern western societies have vigorously promoted individualism--it is a central feature of modern capitalism and consumerism--but they have not vigorously promoted personal resilience[6] which, at least in Western Europe, has diminished steadily since 1945.[7]

The military model of disaster management promoted by NATO has thankfully faded into relative insignificance. However, there are calls to bring it back (Morag, 2006). The remilitarisation of civilian emergency management involves talk of "war", "combat" and the "enemy". In reality the enemy of civil defence is diffuse and loosely organised. Calls for the remilitarisation of civil protection ignore the excellent research conducted in the 1960s on the ambiguous role of military forces in the management of civilian disasters (e.g., Anderson 1969, 1970). The counter-argument, that the military has changed substantially since then, is not convincing, as it remains a fighting force and has primarily adapted to the demands of new forms of warfare and peacekeeping, not civilian emergency management (Milliman *et al.* 2006).

There is a 'Transatlantic' model of disaster management, in which command systems have been adapted from military to civilian uses (Buck et al., 2006). It relies on a combination of complex bureaucratic regulation and repression, and it offers little opportunity to stimulate the participation of its beneficiaries, the general public. It does not tackle the causes of terrorism, and this could be somewhat self-defeating. For example, because it is the negation of accountability, secrecy can easily be used as a means of avoiding responsibility. Secrecy is the handmaiden of authoritarianism, which leads to a corresponding failure of the general public to assume some of the responsibility for maintaining security. The public are treated as passive actors, pawns almost, in a game played by officials according to the rules of their own organisations. One instance of this is the use of the slogan "Go in, stay in, tune in" as an axiom for emergency response in the UK (UK Government 2004).[8] While this advice is perfectly reasonable when the public needs information on how to respond, in practice it encourages passivism rather than participation in the response to an emergency situation. Experience suggests that there are circumstances in which such inactivity is detrimental rather that helpful: for example, in the evening of 7 July 2005, hours after the bombings, the public of London were still being exhorted to "go in, stay in and tune in" when the right thing to do was to return home on the newly reopened public transport services (London Assembly 2006, p. 89).

In any case, after an event we so often find ourselves "trying to prevent a former disaster" (Albala-Bertrand 2006), but there will be problems if the next one is different and our planning and management strategies are not adaptable. Traditionally, far too little has been done to prepare for disasters and even in the best situations a full two thirds of funding is spent on reacting to them after they have happened (Greenberg *et al.* 2007). Likewise with counter-terrorism, too little is being done to tackle the aetiological

[6] The term 'resilience' owes its origin to developments in the early 1900s in the mechanics of materials testing. A resilient material has the strength to resist an applied force and the flexibility (or ductility) to absorb some of it by deforming without breaking. By analogy, when faced with hazards, society needs resistance and absorbing capacity.
[7] The basis of WWII resilience was as follows: low expectations; low consumption of goods and services; low personal mobility ("is your journey really necessary?"); willingness to accept disruption and inconvenience; personal countermeasures; self-reliance; relatively low reliance on institutions; and high reliance on family and friends. Much of this has disappeared or altered over the last 60 years.
[8] This document was revised in 2010 and, thankfully, the new version is somewhat better at encouraging active participation rather than treating people as "pawns in a game".

roots of the problem, and the preferred strategy is one of trying to suppress the consequences.

The truth about the causes of terrorism is uncomfortable. First, policy makers would like to restrict the use of violence as a political weapon, but the world is flooded with armaments. Sales are made with scant concern for the uses to which the weapons will be put and then, illogically, attempts are made to stop particular groups from using them. Many of the more than 150 armed conflicts that have flared up since 1945 have been 'proxy wars' in which blocs or political alliances have armed and encouraged different factions as part of their global or regional strategies. Atrocities and illegal acts are perpetrated, with or without government sanction, and then efforts are made to stop 'enemy' groups from continuing them. Whether or not these processes are officially sanctioned, state-sponsored kidnapping (termed 'rendition'), torture, incarceration without trial, interdiction of other countries' territories and perpetration of atrocities, however incidental or accidental they may be in military terms, do nothing to root out the causes of terrorism. Furthermore, the sponsors of conflict may abruptly change their alliances according to broader strategic interests. Thus, counter-terrorism constantly presses at the margins of national and international legality. Occasionally it simply ignores legal and sovereignty matters (Van Leeuwen 2003).

Terrorist organisations are financed for years, or in some cases decades, and then the funding is stopped and war is conducted against them. Thus, vast sums of money were spent by the US Government on the Taleban in Afghanistan (for example, they received a grant of $43 million in May 2001) and Saddam Hussein in Iraq before strategic interests dictated that they be reclassified as 'enemies'. Moreover, only about ten per cent of terrorist funding has been sequestered. To solve this problem efficiently would disturb the functioning of the world's 78 tax havens, through which fully half of international commerce is directed (Transparency International 2005).

4. Basking in a climate of fear

Secrecy and passivism are sustained by the resistant, though mythical, spectre of the Hollywood-style breakdown of society and reign of terror and anarchy in the midst of brutal "survival of the fittest" competition (Mitchell *et al.* 2000). Empirical research shows just how persistent this model is (Alexander 2007). Yet society has shown time and time again that it is resistant to attempts to create mayhem. Nevertheless, protection has become a service provided by "the authorities"; but, unless it has the benefit of significant input from the public, the same authorities will become detached from public concerns. One of the consequences of this is an unbalanced approach to public order. When the officials start to justify their actions with references to the likelihood that the public will panic, they are usually not referring to panic as it is understood by sociologists and psychologists (Quarantelli 2001), but to their own fears of losing control over situations. "Panic" is therefore a metaphor--or at best a metonym--for an ungovernable situation (Dynes 2006). Thus are disaster crises stereotyped by excessive emphasis on the destructive role of irresponsible, individualistic behaviour, moreover in a society that has vigorously promoted individualism.

In a landmark book, Kirschenbaum (2004) argued that the world's emergency managers have exaggerated the size of threats and crises for their own aggrandisement. He went on to state that this is one of the principal reasons why there appears to have been a massive rise in the number and size of disasters over the last half-century. It is easy to show that this argument is flawed, at least to some extent: the huge and profound impacts of events such as the Indian Ocean tsunami of December 2004, Hurricane Katrina in August 2005 and the Haitian earthquake of January 2010 may well be pointers to a more dangerous and damaging future. Nevertheless, it cannot be denied that a vast, self-justifying machinery of crisis response has been created. Its most visible manifestation is the Department of Homeland Security, the greatest reorganisation of US Federal Government since the creation of the Department of Defense in 1948. But it is a historical machinery. Its mission is undermined by the political decisions and strategies

of the past. It can only function by ignoring the lessons of history and the wider implications of the past. To do otherwise would lead to much self-doubt and ambiguity.

For example, Iraq is a country that was somewhat arbitrarily constituted after the First World War out of the Ottoman Provinces of Mosul, Baghdad and Basra in a way that suited British strategic interests in the area at the time. When in the 1930s it achieved enough of an identity to spawn Arab nationalism, this was repressed with much brutality. The perpetrators may have forgotten this fact, but the affected populations have not, especially as they have had further atrocities to deal with, for example with the death of women and children in the Amiriyah bomb shelter in 1991, the loss of a myriad lives due to sanctions, the use of cluster bombs in southern Iraq in 2003 and the loss of hundreds of thousands of civilian lives in the subsequent years of conflict (Noji 2003).

Yet, despite the apparent incentives, huge opportunities to perpetrate atrocities are routinely ignored by terrorist groups (for example, see MCA 2003). Moreover, the need for secrecy in emergency planning appears to have been exaggerated, as there do not appear to be examples of terrorists sitting down to study disaster plans in order to think up ways of making them ineffective when the atrocity is perpetrated. Obviously, it would not be impossible for terrorists to want to exploit disaster plans, and the Provisional IRA's strategy of planting two bombs, one warned against and one not, is an illustration of the desire to compromise the emergency services. However, it would at least be helpful to study the extent to which secrecy is really necessary, under the assumption that maximising transparency will give the best possible opportunities for the public to react rationally to crisis situations by making informed decisions (Slovic *et al.* 1988).

5. Surveillance and the insecure side of security technology

One assumption that is seldom contested is that human security requires a large input of technology. I do not wish to seem a Luddite, but it seems appropriate to question such a strategy before implementing it. To begin with, the efficiency and cost-effectiveness of security technology are very hard to measure objectively. Secondly it is probable that all technology has some kind of an Achilles heel, or potentially fatal weakness.

Paradoxically, world travel and communication are vigorously developed and then attempts are made to make them more difficult in order to restrict the mobility of the terrorists, again a contradictory policy. Air travellers will be only too painfully aware of how increasingly elaborate efforts to establish the identity and bona fide nature of passengers have become[9]. Surveillance is intended both to ensure that people embarking on journeys do not intend to conduct terrorist outrages on the means of transport that they use, and to monitor the movement and whereabouts of suspects (Kephart 2007).

When thousands of travellers are involved, the key element of the process is a quick and reliable method of establishing identity. The idea that a person should have a unique, legal identity is an artefact of the rise of the nation state in the 17th century. It reached a zenith under authoritarian regimes that sought to control their populations. Yet there are still many cultures in the modern world in which individual identity is much less valued and catalogued than it is in Western society. Further difficulties are posed by the identities of political refugees, internally displaced persons and migrants subject to people trafficking (Zolberg and Benda 2001). Finally, "identity theft" is on the increase and identity fabrication is a world-wide cottage industry.

The development of biometric technology is intended to ensure that all people whose unique

[9] In the Western world from about 1999 to 2008, the cost of aviation security increased from about 8 per cent to about 36 per cent of the cost of running an airport (Stewart and Mueller 2008).

characteristics are measured have a completely unambiguous official identity, which, moreover, cannot be falsified. Yet like all such technology it has an Achilles heel. Biometrics can verify that a subject is the person who was originally measured, but not who that original person really was, which will probably depend on more rudimentary documentation. Hence, although the process of verifying identity is fairly watertight, if the original input involves some deception, then the wrong identity has been established and has become institutionalised.

This points to a wider question regarding the efficiency of security technology, which may not improve matters, or may not function as it is intended to. In the first place, technology cannot think and it often cannot adapt. What in human terms is a mistake, in mechanical terms may be regarded as successful functioning. Will technological sensors accept or reject inputs that are apparently irrational (for either benign or malign reasons) or will it not know what to do? Secondly, the malfunctioning of technology offers only two options: accept a blockage of activities (suspend activities) or do without it (go manual). Moreover, in the security field, devoting resources wholesale to the development and application of technology risks neglecting more basic and rudimentary measures.

Basic security measures may be unattractive because they lack the lure of high technology, but that does not mean that they are necessarily inefficient, or that the technological alternatives are necessarily more effective. In fact, technology does not automatically confer a sense of balance. It can lead to excessive concentration on certain areas at the neglect of others that are at least as important. Furthermore, the technological solution to the security problem requires a very high degree of capital investment in apparatus that is likely to be rendered obsolete very rapidly. In this respect, the application of security technology requires reorganisation of the services that use it (staff training, room layouts, maintenance contracts, new budget elements, etc.) and also reorganisation of the way the general public interacts with officialdom. This can lead to frustrations and inefficiencies on both sides.

It is always assumed that technology is applied for the benefit of the general public but this may be a doubtful assumption if the majority of the benefits, realistically assessed, actually accrue to security organisations. There are cases in which technology appears to induce a 'Fort Knox' mentality that turns security into an obsession rather than a goal. And yet a barrier that is almost perfect at identifying and blocking people who should not be allowed to pass it may perhaps be circumvented by finding another door, gate or opening in the security fence. In sum, technology cannot do what it is not designed to do. If it encounters situations that it can neither identify nor cope with then it will not produce results, other than, perhaps, causing a general blockage. Moreover, security is easily subverted by undemocratic interests into an instrument of repression.

As many forms of security technology cannot adapt to more than a highly restricted range of unusual circumstances, there is an enormous potential for blockages and inefficiencies in which the only options are to suspend activities or resort to slow, cumbersome manual procedures, most of which are based on the unthinking, inflexible application of rules. For example, in the summer of 2005 the sudden imposition of extra controls at UK airports led to the accumulation of 70,000 unconsigned items of hold baggage that almost a year later had still not been completely delivered to the unfortunate owners. Subsequent rules about the carriage of liquids in hand baggage have led to irrational decisions concerning quantities and packaging that, while they are no more than irritating to travellers, are symptomatic of a wider malaise that stems from the conjunction of automation, bureaucracy and authoritarianism.

In synthesis, the more cumbersome the technological system, the greater the effort (and the economic input) required to adapt it to changing circumstances and the higher the risk of error. The key element is system design, and it may well be more important than technological sophistication.

6. Conclusions

There is a risk that emergency preparedness in the Western countries, and any others that follow their example, will be undermined by strategists who appear to have little knowledge of natural hazards and little understanding of the historical context of their decisions. I believe that an alternative model of civil protection is needed, one that fights back against the approach based on homeland security, which is threatening to dominate future policy on disaster management. The field needs to be made more democratic, not less so. Indeed, the single biggest challenge in this sector is not that of winning a war against a loose network, or a set of disparate groups of terrorists. It is one of involving ordinary citizens in assuming more responsibility for their own security.

Thus, in the light of the above discussion and in order to be sustainable, I believe that emergency management should take account of the following ten precepts:-

1. *Protection must be explicitly provided for the population, not just for the state in any of its forms.* This is the essence of a democratic system, and one that is difficult to subvert by the leaders of the state against the people.

2. *Emergency management must be responsive to security needs that are manifested and expressed by ordinary people.* Consultation therefore needs to be an essential, integral part of the system, and there needs to be a robust mechanism to ensure that it takes place.

3. *The system must involve people, in a positive, participatory manner, in the maintenance of their own security.* The burden of managing risks is simply too large for organisations to assume all on their own and it must be shared with the risk-takers.

4. *The system must be organised primarily at the local level, while higher levels of government must provide coordination, harmonisation and support.* The central state must not supplant local crisis response capability, as the local area is always that in which disasters are tackled.

5. *The system must be demilitarised as far as possible.* Civilian institutions locally connected to the public must take responsibility for its organisation. Disaster risk management needs a partnership that involves the state, civil society organisations and key representatives of the private sector.

6. *The service must be as professional as possible.* This means that emergency managers must be trained professionals and must be part of a well-organised, adequately funded network of response organisations. The fruits of research on hazards and disasters must be incorporated into the response strategy.

7. *There must be scenario-based, generic emergency planning.* This should be designed to reduce the vulnerability and tackle the fundamental needs of the general population of the geographical area in which the plans apply. Scenarios require the exercise of considerable mental flexibility, and planning needs the ability to cope with both expected and unexpected events. In the former, the scenarios need to be clear and explicit, while in the latter they will be vaguer or substituted by generic procedures.

8. *The system must define sustainable emergency management and risk reduction and work towards achieving them.* Sustainability requires a constant funding stream, consistent political support for the system and a mature attitude to civil protection, such that it is considered a normal, and vital service to the community. This is the process of 'mainstreaming' disaster risk management (Alexander, 2008).

9. *The system must be compatible with ecological sustainability and urban and regional*

planning that pertain to the local area. This will help achieve integration between processes of disaster risk reduction, which has a much wider basis than merely responding to adverse events. Moreover, there are distinct parallels in the procedures used to plan for disasters and sustainable urban growth and land use (which should avoid the most hazardous areas and be resilient elsewhere).

10. *The public must be kept well informed of any risks and contingencies that may require people to take action.* This requires a good communications strategy as part of the planning process.

None of these precepts need necessarily enter into conflict with counter-terrorism preparedness. In essence, what is needed is greater integration between civil defence and civil protection on the basis of a clearer definition of their relative responsibilities.

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