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An incident management system for Japan?

Substantial political will and bureaucratic skill are needed to implement a national incident management framework in Japan, but change could be on the way, say **Arnold M Howitt**, **Haruo Hayashi**, **Hiromi Akiyama**, **David W Giles**, and **Herman B ‘Dutch’ Leonard**

ON JUNE 14, 2013, THE JAPANESE Cabinet adopted a ‘basic policy’ that committed government ministries to initiate: “Discussion towards the standardisation of disaster response that enables smooth wide-area assistance....”

These few words, prompted by perceived shortcomings in Japan’s emergency response to the Great East Japan Earthquake (also known as the 3.11 disasters) of March 11, 2011, may lead Japan to a major change in its emergency management system: the adoption and implementation of a nationwide incident management framework. This would make it more likely that in future disasters emergency responders from many agencies and professional disciplines would be able to collaborate more effectively when they came together under the enormous stresses of a major event – whether earthquake, tsunami, severe industrial accident or an infectious disease epidemic.

Where an incident management system has been established and is widely used, by the US and the UK, for example, the benefits are significant. Most importantly, responders from different organisations, professional disciplines, and jurisdictions share operating structures and procedures that reduce friction and delay when these responders converge on a disaster scene – even when they have not previously worked together.

Although some conditions in the aftermath of the Great East Japan Earthquake catastrophes favour Japan’s adoption of such a system, it is by no means a certain outcome. The Cabinet policy is a statement of intent, not a finished policy. The idea of a common incident management system has been considered before in Japan, but made little progress. It has proved no easy task to get diverse emergency response organisations to acknowledge the need

for such a system and to agree on its features.

If a common system were to be adopted, moreover, that action would only initiate a difficult implementation process requiring change in a number of independent emergency response organisations – firefighters, police, emergency management, the Self-Defence Force (SDF) – at the national, prefectural and city levels. That change must occur not only at managerial levels, but also for rank-and-file responders – driving significant reform right to the roots of each response organisation.

Widely-felt tremors

Advocates of a Japanese incident management system must, therefore, still press hard for adoption and robust implementation efforts.

Japan’s March 2011 ‘triple disaster’ began with a massive 9.0 earthquake off the Sanriku coast, felt widely in the eastern areas of Japan’s main island. Within 30-45 minutes, about 650km (403 miles) of the coast were hit by a gigantic tsunami that devastated communities, sweeping away buildings, infrastructure, farms and livelihoods.

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About 20,000 people perished, the vast majority from the ocean surge, measuring up to 20 metres, which penetrated several kilometres inland in many coastal plain areas. The tsunami also disabled the cooling system of the reactors at the coastal Fukushima Dai’ichi nuclear plant, leading to explosions, radiation release, and the evacuation and long-term abandonment

of a 30km (18 mile) zone around the plant.

Responders were dispatched from swiftly-mobilised emergency operations centres in prefectural capitals, at SDF bases in the Tohoku region, and from national ministries in Tokyo.

But exercising central command and control was very difficult – even at the single nuclear plant site, let alone in the dozens of individual communities struck by the tsunami. A near-total communications failure silenced the tsunami-affected region. Senior political and emergency response officials had enormous difficulty learning what was happening in communities along the coast. Responders, in effect, were instructed to go to the scene, determine how to save lives and help the injured and displaced, and then do whatever was required.

As diverse teams of responders arrived in devastated communities, they encountered some local responders, as well as other teams converging from outside through mutual aid arrangements or self-initiated assistance efforts. But these responders had to organise on an *ad hoc* basis: they had no common, specific charge, no firm system of organising for collaboration, no certain knowledge of others’ professional competences, and no pre-existing personal relationships. While in many instances their work was effective, they lost time in getting organised and had difficulty working with other responders across team/agency/professional lines.

In the command centres, agency leaders assembled, but had only a bare minimum of doctrine about how to operate together. The lack of a common system meant that they too had to improvise methods of collaboration. Most agencies operated independently; inter-organisational co-operation was *ad hoc* and not widespread.

Although Japan’s overall emergency preparedness is excellent in many respects,

▶ the 3.11 disasters revealed shortcomings in situations when varied response groups arrived from different places, when a high degree of co-ordination across the normal lines of collaboration was essential, and when that co-ordination needed to extend horizontally over a wide geographic area and vertically across levels of government.

As Japan moved beyond the shocks of the catastrophe and towards recovery, some emergency management professionals and political leaders began to advocate the creation of a national system for managing emergency response, a method that would help responders and leading command centres to overcome co-ordination obstacles when a disaster strikes an enormous area (or areas) of the country simultaneously.

Among other advantages, such a system establishes a clear chain of command (or a unified command of independent but collaborating entities), while creating a decision-making system for allocating scarce resources among responders. A joint incident action planning process maps out and apportions responsibilities for the next operating period – and future periods through the conclusion of the event. While a high degree of standardisation permits diverse response organisations to integrate operations, the system allows for substantial flexibility according to operational scale and special circumstances.

In very large events, the system allows for effective decentralised operations in widely varying local conditions, while simultaneously permitting co-ordination among multiple disaster sites and priority setting for use of resources across disaster sites. An effective incident management system can also ease the co-ordination problems that frequently plague large-scale emergency operations in governmental systems in which multi-level institutions are substantially independent of each other rather than integrated.

Such ideas have previously failed to

gain currency in Japan. The changes in emergency management initiated after the Great Hanshin-Awaji (Kobe) Earthquake of 1995 emphasised reform in the national leadership of emergency response. They placed more authority and responsibility in the hands of the prime minister and the Cabinet secretariat, seeking to ensure more centralised and timely leadership in times of crisis.

But individual agencies, whether at the national, prefectural or local government levels, were left to develop their own emergency plans and methods of operation. Little effort was made to create the standardisation across agency, jurisdictional or level of government lines, which would enable effective co-ordination at the scene or in support of the response at higher levels of government.

Subsequent initiatives to develop a standardised emergency response system have failed to gather support or momentum. There is no mechanism in law or professional practice to push various groups to standardise their own methods or to co-ordinate practices with other professional disciplines.

An advisory committee under the Japanese Government's Central Disaster Management Council considered this idea in a 2006 report, which acknowledged the need for a system to improve the co-ordination of on-site responders

with the national government and local governments; but it explicitly argued that a US-style, standardised incident management system would be difficult to implement in Japan. In part, that judgment resulted from resistance within some emergency professional groups to the idea of standardisation, which would have required considerable alteration in local practices. The report therefore concluded with an injunction to continue looking for a co-ordination system that was appropriate for Japan.

Further steps necessary

As noted above, the new national government, led by the Liberal Democratic Party and Prime Minister Shinzo Abe, has now taken the first steps that could lead to adoption and implementation of a system of incident management which might parallel some of the features of the National Incident Management System (NIMS) in the United States and the Gold, Silver, Bronze system in the UK.

Further steps are necessary to develop such a system. The basic policy states the intent of the Cabinet, but the initiative lies with individual ministries and agencies, particularly with the professional civil servants who dominate the policy and implementation processes. In the Japanese system of government, the prime minister cannot dictate to Cabinet ministers and

Aftermath of the tsunami in Japan, March 2011: Although Japan's overall emergency preparedness is excellent in many respects, the 3.11 disasters revealed shortcomings in situations when varied response groups arrived from different places, when a high degree of co-ordination across the normal lines of collaboration was essential, and when that co-ordination needed to extend horizontally over a wide geographic area and vertically across levels of government

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does not control individual ministries; he co-ordinates, with few powers other than persuasion to compel ministries to act. Pulling together emergency response doctrine and practices on a government-wide basis and in prefectural and local governments will be a difficult undertaking.

Is optimism warranted? The Basic Policy – driven by the Great East Japan Earthquake disasters – is a step forward, an acknowledgment of the problem of inter-agency, inter-jurisdictional co-ordination that goes well beyond previous statements. In other countries, as well as in Japan, political pressure for reform of emergency management tends to build when major disasters reveal shortcomings of capacity or practice.

The post-9/11 *Homeland Security Act* of 2002 mandated adoption of NIMS by all emergency response organisations in the US. There is some movement within the business sector and among non-governmental organisations to adopt similar methods, though this is far from universal.

Beliefs in the professional community have also been changing. In the international emergency management professional community there is substantial consensus that standardised emergency management systems have enormous advantages, not only for response to catastrophic events, but for everyday practice as well. A major

factor behind the adoption of NIMS was the firm conviction of US professions that standardisation promoted higher levels of performance where teamwork is essential, as in wildland and urban firefighting, emergency management and emergency medicine. The adoption of such systems by some professions and in other countries helped to push Japan.

A further factor favouring development in Japan: in 2011 the International Organisation for Standardisation has put forward *ISO 22320: Societal security — Emergency management — Requirements for incident response*. This document: "Specifies minimum requirements for effective incident response and provides the basics for command and control, operational information, co-ordination and co-operation within an incident response organisation."

The details of this framework, put forward by an organisation that is widely respected in Japan, provides a potential template to guide development of a Japanese system of incident management.

Going beyond the promulgation of an incident management system to full-scale implementation will be neither easy, nor accomplished quickly. The US has been working to implement the NIMS system widely for a decade. While progress has definitely occurred, this practice has been adopted on a broad but often not deep basis. Some jurisdictions have embraced it; others have been more grudging, going as far as required by national requirements and mild potential sanctions for lack of compliance. It is far more challenging to integrate the system into the daily practice of emergency response so that its use will be second nature when a major disaster strikes.

Why? Most organisational innovation involves high-level policy change, or alterations in practice by only some parts of an organisation, or the establishment of a special unit to take charge of the innovative programme or practice.

Implementation of an incident management system, by contrast, requires all or most of the members of a response organisation – right down to the frontline operatives – to master a new way of doing their duties. That requires training, repeated exercises and utilisation in response to real, but smaller, emergencies to gain operational experience.

Ideally, exercises and actual experience would involve cross-organisational collaboration, not only experiences within a given response organisation. Responders must feel sufficiently confident in their capabilities to use the system under the highly stressful conditions of disaster response when others' lives – or even their own – may be at stake.

Building that level of competence and developing sufficient trust is a major undertaking. It is expensive in monetary terms, time and organisational energy. And it incurs opportunity costs as well – measures that the organisation might otherwise be taking if it were not implementing incident management.

Nonetheless, Japan's new basic policy represents an important first step. Progress could be made in the coming years, thanks to the recognition that more effective co-ordination would make a difference in future response to catastrophic disasters, boosted by the example of several other countries, and by implementing systems to fill the same need, with the framework provided by ISO 22320.

The road ahead may be long, as experience in the US is proving. Implementation is complex, requiring personnel in many organisations, spread across a nation, at multiple levels of government, to alter their practices – even their deeply held traditions in response. Going beyond government to companies and non-governmental groups is yet another obstacle.

Japanese advocates of a stronger, standardised response system – whether in government or the private sector – must take the initiative in pushing individual ministries to develop the system that the basic policy foresees, in pressing prefectural governments to sign on and promote the system to localities, and in promoting this idea in the private sector and in government. This will require substantial political will and bureaucratic skill, but the effort is necessary.

We know that major disasters will occur in the future. Getting ready for large-scale response is a crucial obligation of nations and emergency response organisations.



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