

Learning and adaptation of disaster management and housing provision: The Malaysian experience

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ABSTRACT

This article reviews the literature on aspects of the 'Policy and Mechanism on National Disaster and Relief Management' in Malaysia. The review focuses on the evolution and transformation of disaster planning, particularly regarding land management according to the 'level and complexity' of a disaster. As a social regime, the Malaysian Government not only formulates a complete framework of disaster planning, it also has a mandate to ensure the plan works throughout the whole cycle of disaster management. To ensure efficiency in disaster management, it is essential to develop close liaisons between the bodies responsible for recovery and those concerned with disaster management. Disaster managers can develop strategies, including awareness- raising and capacity-building, by using the lessons learnt from previous disasters. These strategies can in turn enhance Malaysia's current legislation and ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation. [®]

construction, cultural attitudes about development and political preference, Malaysia is learning from shortfalls in provision, training and awareness to suit contemporary practice.

The MNSC Directive 20 is one part of the 'Policy and Mechanism on National Disaster and Relief Management' which is in fact characterised as a framework and outlines on the actions of land management according to the level and complexity of the disaster. It establishes management mechanisms for determining the roles and responsibilities of agencies at three levels namely the national, state and district levels (Moin, 2007a). Quite simply, the MNSC Directive 20 is the standard operational procedure (SOP) for all departments involved in disaster management. This policy framework was developed from international and national requirements such as Hyogo Framework of Action (HFA); Yokohama Strategy (guidelines for natural disaster prevention, preparedness and mitigation); Habitat Agenda (a practical roadmap for an urbanising world, setting out approaches and strategies towards the achievement of sustainable development of the world's urban areas); other ISDR strategies (a system of partnerships for disaster risk reduction strategies which consist of international, regional and national agencies); and national rules and regulations (Roosli, 2011b). Executive order in the MNSC Directive 20 by the Prime Minister is the standard operational procedure (SOP) to comply with for all departments involved in disaster management. Even if the complete version of the MNSC Directive 20 is restricted, the contents circulated are clear to all departments in the Mechanism of Disaster Management in Malaysia. The MNSC Directive 20 specifies in writing what should be done when disaster strikes, when to use certain clauses of it, and where responsibility lies. This directive includes objectives, scope of areas, stages of the process, responsibility and review of implication at the end to make sure that the procedure continues to be useful, relevant and up to date (Aini et al., 2007). The Malaysia National Security Council (MNSC) Directive 20 clearly stated guidelines on the management of disasters including the responsibilities and functions of various agencies within the scope of national and international

Introduction

Providing emergency shelter is one of the most important emergency activities because of safety, land use and ownership issues (Quarantelli, 1995). In Malaysia, the Malaysian government gives extra attention to housing provision (Roosli, 2011a). Learning from these issues in disaster management such as the dangerous location of buildings, improper

legislation (Shaluf et al., 2003a). The MNSC Directive 20 also provides:

- An opportunity to demonstrate professionalism, professional accountability and responsibility to government;
- A platform to tackle any issue in the right way parallel with other government departmental SOP's such as Health, Safety and Environmental Policy; department desk file; department work procedure manual; and the National Urbanisation Policy (Sarji, 1996). Most importantly, SOP will guide the agencies responsible to comply with rules and regulations in it.

Evolution of disaster management in Malaysia

Historically, the May 13 Incident (13 May 1969 racial riots) in Kuala Lumpur involving mainly Muslim Malays and non-Muslim Chinese, resulted in the establishment of the National Operation Council (Majlis Gerakan Negara-MAGERAN/NOC) on 16 May 1969 to restore and implement law and order by establishing an unarmed 'Vigilante Corps', a protective army and police force. The Government also declared a national emergency state and suspended Parliament until 1971. When peace was restored, NOC (MAGERAN) was suspended. On 23 February 1971, the Government decided to establish National Security Council (Majlis Keselamatan Negara-MKN) to strengthen the public security and national defence and to maintain public order in the country (Aini, 2005).

The major transformation in the Malaysia Disaster Management Mechanism came only after the tragedy of

the luxury condominium of Highland Towers collapsed on 11 December 1993. The chaos occurred when the explanation given by various parties on the causes of the disaster differed greatly. At first, no agency admitted responsibility for carelessness and negligence. The noticeable lack of local expertise in specialised rescue operations, improper planning of disaster management and lack of standardised rules and regulation prompted the government to review the existing provisions for disaster management and institute a new mechanism for disaster relief and management (Aini, 2005).

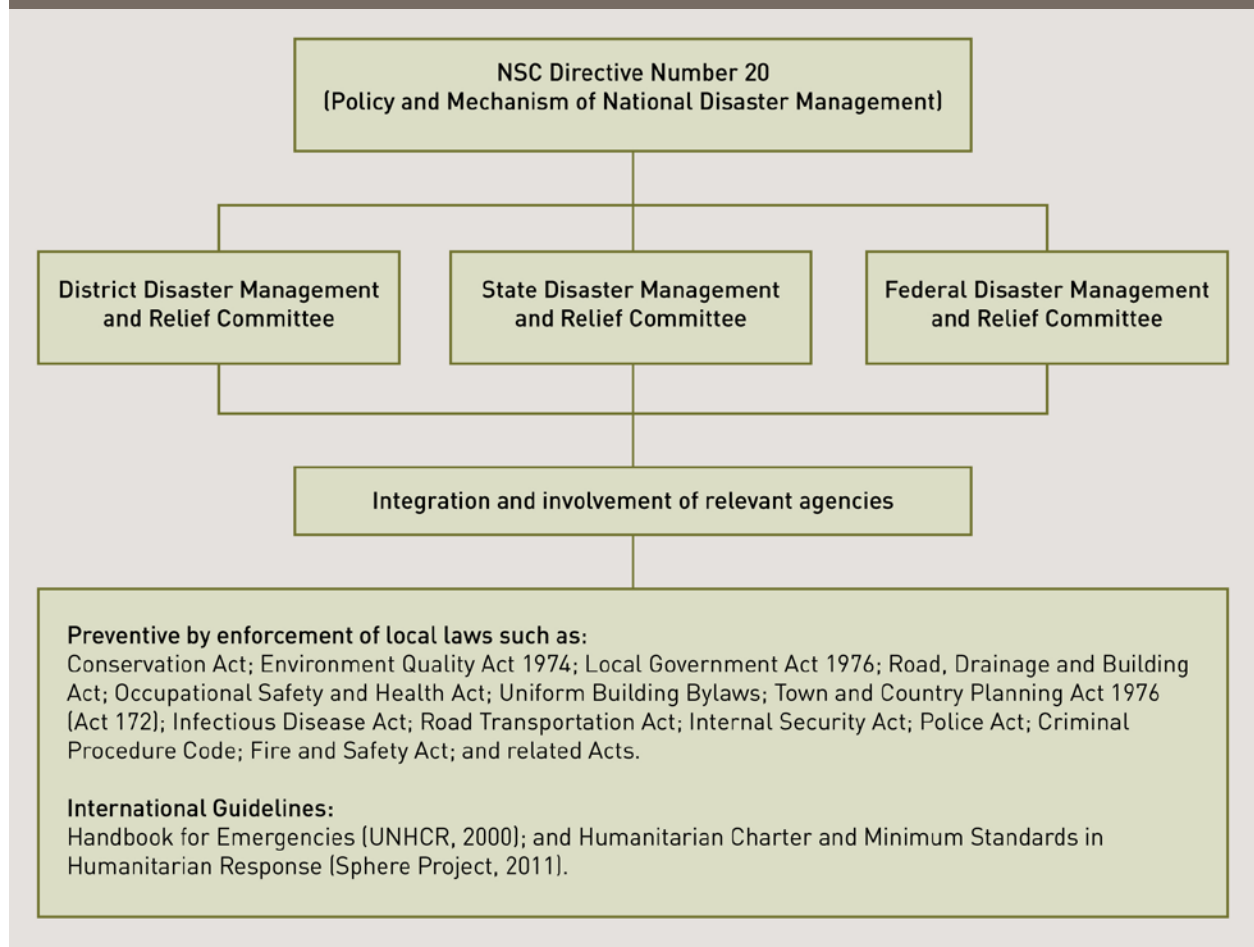
Even international communities were disappointed in the absence of a pre-agreed emergency response plan when response teams from Japan, France and Singapore came to offer their assistance (Soh, 1998). The Highland Towers' tragedy set an exemplar and reference for future disasters management. Subsequently, the 'Policy and Mechanism on National Disaster and Relief Management' was formulated by National Security Council in May 1994 to coordinate all emergency agencies and handle relief activities during any major on-land disaster incident (Fakhru'l-Razi, 2001). In 1995, the MKN office was reorganised and renamed as the National Security Division (NSD) (Bahagian Keselamatan Negara-BKN). Nevertheless, on 24 July 1997, BKN was again renamed as the National Security Council (NSC) (Majlis Keselamatan Negara-MKN) (Loo, 1999).

Back in 1968, The Royal Commission of Enquiry found the existing Kuala Lumpur Municipal Building By-Law to be outdated and recommended the formulation of a uniform building By-law throughout the country to meet the changing needs of the construction industry. Among other matters the commission recommended changes



Shelter is an emergency management priority for Malaysian authorities.

Figure 1. Disaster Management in Malaysia. Source: NSC (1997).



in the present laws and by-laws affecting the building industry that covered proposals for the introduction of new legislation for the control, tendering procedures and regulation of building operations on site. It also proposed the introduction of legislation regarding the workers safety and health (Barakbah, 1971). On January 1986, The Uniform Building By Law (UBBL) was finally implemented. Standard enhancement in UBBL is on-going and keeps updating from time to time to meet latest developments in building and construction technology (Aini, 2005).

To keep up the standard of construction development in Malaysia, the Malaysian Construction Industry Development Board (CIDB) was formed under the federal statutory body in 1993 to co-ordinate all construction industry activities in Malaysia. The official name of CIDB is 'Lembaga Pembangunan Industri Pembinaan Malaysia'. The Act was subsequently gazetted on 7 July 1994 and appointed on the 1 December 1994 (Abdul-Aziz et al., 2007). In the middle of 1996, the Building Control Unit was established under the Ministry of Housing and Local Government. The Unit was required to coordinate and draw up guidelines, plans and procedures as well as provide expert advice to local authorities on the safety and stability of buildings (Jaapar, 2006).

Malaysia never set an annual risk reduction budget. The Malaysian government reserves a sum of USD 20 million per year for an emergency fund (ADRC, 2006). A 'National Disaster Relief Fund' under the NSD has been set up to fund efforts in disaster relief. There are continued efforts by respective agencies (such

as the Armed Forces, Police Department and Health Department) in risk reduction as shown in Figure 1 guided by the MNSC Directive 20.

The establishment of National Disaster Data and Information Management System (NADDI) by the Malaysian Centre of Remote Sensing (MACRES); National Tsunami Early Warning System was commissioned by the Malaysian Meteorological Department, the Storm water Management and Road Tunnel (SMART) that was developed by the Malaysian Drainage and Irrigation Department (DID) are just some of examples of risk reduction and mitigation efforts made by government agencies. Several local universities initiated research centers related to landslide hazards in Malaysia such as the National Soil Erosion Research Centre (NASEC) by the University of Technology Mara (UiTM) and the Mountainous Terrain Development Research Centre (MTD-RC) by the PutraUniversity of Malaysia (UPM) funded by the MTD Capital Berhad (Jaapar, 2006).

Compliance to the MNSC Directive 20

Malaysia has a policy of disaster management called the 'Policy and Mechanism on National Disaster and Relief Management' (Aini et al., 2001). This framework contains directives that relate to disasters and relief management such as Directive 18 for the relief and management of disasters resulting from terrorist action; Directive 19 for establishing a special unit called Special Malaysia Disaster Assistance and Rescue Team (SMART) and Directive 20 for relief and management of natural and technological disasters.

The policy statement for disaster relief operations in Directive 20 was purposely put in place to:

- Mitigate the effects of various hazards;
- Prepare for measures that will preserve life and minimise damage to the environment;
- Respond during emergencies and provide assistance;
- Establish a recovery system to ensure the affected community's return to normalcy.

The MNSC Directive 20 is actually an executive order by the Prime Minister as the Standard Operating Procedures (SOP) that stipulates the procedures to implement in times of disaster (NSC, 1997). In the MNSC Directive 20, a disaster is defined as "an incident that occurs suddenly, is difficult in nature, destructive of property or environment and may cause loss of life and disrupt the daily activity of the local community" (Aini et al., 2001: 46). This definition includes natural disasters

like flood and landslide and technological disasters like factory explosion and fire. Through this directive in the NSC (1997), disaster management is controlled in accordance with the scale of disasters as follows:

A. Level 1 disaster

Local incidents which are in control and do not have the potential to spread. Disasters at this level are not complex and could cause only small damage to life and property. This form of disaster would not jeopardise local daily activity on a large scale. The District Level Authority is capable of controlling such incidents through district level agencies without or with limited assistance from outside.

B. Level 2 disaster

More serious incidents, covering a wide area or exceeding two districts with a potential to spread. Disasters at this level possibly would cause death and damage to a large number of properties. These kinds of incidents also affect public daily activities. Being more complex than Level I, these disasters are difficult in terms of search and rescue. The State Level Authority is capable of controlling such incidents with or without limited help from outside.

C. Level 3 disaster

Any incident caused by a Level III Disaster is more complex in nature and affects a wide area of more than two states. Such incidents could be handled by the Central Authority with or without foreign help. The classification on assessment relies on the district level authority or



AP photo by Vincent Thian.

Members of a special response team from Malaysia move into an abandoned construction site during a drill in Kuala Lumpur, Malaysia. In a scene simulating a devastating earthquake, rescue workers and officials of Malaysia, Brunei and Singapore spring into action to carry out a regional disaster response exercise.

state level authority or central authority depending on the scale of the disaster and also determines if help from higher authorities is needed.

The Malaysia National Security Council (MNSC) Directive 20 details the mechanism on the management of natural and technological disasters including the responsibilities and functions of the various agencies under an integrated emergency management system (Moin, 2007a). The directive states that when a disaster occurs, the Disaster Management and Relief Committee (DMRC) must be established at three different levels depending on the severity of the disaster, i.e. at the federal, state and district (NSC, 1997). Representatives from various private and government agencies fill up the place in this committee such as local authorities, Army, Police, the Civil Defense Department and many other relevant organizations.

The committee at the federal level is chaired by the Deputy Prime Minister. The state level is chaired by State Secretary, while the District level is chaired by District Officer. The National Security Council (NSC) is the secretariat at each level. Being the Secretariat,

NSC will establish Disaster Operation Control Centre (DOCC) to coordinate all forms of disaster relief efforts as well as monitoring the progress and development of these efforts (NSC, 1997). The DOCC is responsible for forming:

A. District Disaster Management and Relief Committee (JPBBD) for Level I Disaster

JPBBD is headed by the District Officer and should be mobilised to ensure all preparation activities for search and rescue operations, preparation of facilities and machinery, and other emergency aid (i.e. food and treatment) are executed and managed in good order and fully coordinated. On receiving a disaster report, the District Chief Police Officer and District Fire Brigade Chief should take appropriate steps assisted by main rescue agencies and supporting agencies and other organisation and voluntary bodies responsible in giving aid and rehabilitation to disaster victims. District Chief Police Officer and District Fire Brigade Chief would be commander and deputy commander of disaster operations respectively.

B. State Disaster Management and Relief Committee (JPBBN) for Level II Disaster

JPBBN headed by State Secretary should be mobilised to ascertain that disaster management is carried out smoothly and is well coordinated. The State Police Chief and Director of State Fire Brigade will be a commander and deputy commander of disaster operations respectively at this stage.

C. Central Disaster Management and Relief Committee (JPBBP) for Level III Disaster

JPBBP headed by a minister appointed by the Prime Minister should be mobilised to ensure that all aspects concerning policy and decision making in search and rescue operation is carried out in a professional and

effective manner. All related agencies and sources including search and rescue teams and emergency aid at district and state level shall be combined to face disaster that occurred under JPBBP. The Director of Internal Security and Public Order, Royal Malaysia Police (PDRM) and Deputy Chief Director of operation, JBPM respectively will be the commander and deputy commander of disaster operations.

'Control Post on Scene' (PKTK) and 'Disaster Operation Controlling Centre' (PKOB) should be established at the scene of a disaster. Assistance required may be delivered to the district or state level in terms of expertise and equipment if it is found to be necessary.

Moin (2007b) notes that officials must comply with the MNSC Directive 20 alongside other national legal frameworks in development process as follows:

- Land conservation Act;
- Environmental Quality Act 1974;
- Local Government Act 1976;
- Road, Drainage and Building Act ;
- Occupational Safety and Health Act;
- Uniform Building By-Laws;
- Town and Country Planning Act 1976 (Act 172);
- Infectious Disease Act;
- Road Transportation Act;
- Internal Security Act;
- Police Act;
- Criminal Procedure Code;
- Fire and Safety Act;
- Related Acts etc.

Simultaneously, any related international guidelines are considered as the same reference in emergency management and relief work because the Malaysian Government agreed to implement the contents in Hyogo Framework (Moin, 2007a). Two main basic texts provide the foundation for the response of the international community and aid organisations in humanitarian emergencies as mentioned by Corsellis et al. (2005) as follows:

- 'Handbook for Emergencies' (UNHCR, 2000);
- 'Humanitarian Charter and Minimum Standards in Humanitarian Response' (Sphere Project, 2011).

Newer versions of the shelter guidelines, the 2008 *Preliminary Draft Shelter Standards* and the 2010 Edition *'Humanitarian Charter and Minimum Standards in Disaster Response'* were released by the Shelter Centre. These standards however are still waiting for comment by the stakeholders in the disaster community.

Whenever non-compliance was identified, it is a useful means of reviewing procedures and identifying any that may need modifying because non-compliance will affect

the performance and vulnerable to potential risk, to regulatees and even to agencies involved.

Non-compliance refers to any failure to comply with the federal regulations or the requirements or determinations of the MNSC Directive 20 (Fakhru'l-Razi, 2001). Non-compliance can be relatively minor, such as trouble with bureaucracy and scopes of work within agencies involved, or it can be serious, such as non-compliance that adversely effects the rights and welfare of regulatees and participants, such as inhabitable rooms; incompatible materials (e.g. non-combustible and toxic materials); no open spaces or buffer zone for gathering point in case of fire; improper insulation and painting; unacceptable ventilation; no running water supply; unmaintained toilet and unsafe workplace for the agencies as service provider (Shaluf et al., 2003b). All of the hazards (e.g. health, fire and chemical reactivity) will expose occupants and also the agencies working around them.

Conclusion

In the past, Malaysian public policy on disaster management, has been heavily centered around responses based on the assumption that natural disasters were almost inevitable and not preventable by any human agency. However, over the years, this perspective has been put to rest by disaster researchers such as Quarantelli (1980) and Dynes (1978), who now define disasters as a social phenomenon, in which the emphasis comes to be on internal rather than external factors. From this perspective, disaster is not an outside force that impacts upon a social system, but a manifestation in the society. This manifestation is the result of interactions between hazard-triggering elements distributed by nature, as well as from human activity and vulnerabilities where vulnerability is commonly evolved to a physical, social, economic and cultural loss. Variables that widely contribute to mitigation efforts include structural measures to control a hazard, land use management, building regulation enforcement to minimum standard and warning systems. In the international community, emergency management is the subject of defense strategy. In most cases, emergency management is an instrument of international cooperation, where liberty remains a political agenda. Inspired from international liaison and experienced from local situations, Malaysia provides guidelines in handling land disaster management called the MNSC Directive 20 that synthesises all hazards mitigation, preparedness/planning, response, recovery and reconstruction services; continuity of operations, continuity of government and emergency operations planning; risk management and mitigation, and training and exercise design services to local, state and federal government agencies nationwide.

Learning from the classic examples in disaster management, scholars such as Moin (2007a) and Corsellis et al. (2005) suggest that a process for planning must be included in the strategic; programme; and project levels perspective. It gives guidance not only to develop profiles of community and plans but also

describes the phases (i.e. before, while disaster happens and after) of operation for planning that presents the sequence of events (planning and operations) occur. Phases of operation are the most important due to crucial participation from all disaster communities. Disaster communities will give input in order to maintain cultural identity (e.g. income generation, social networking and historical conservation), reviving and conserving the often protective but vulnerable ecosystem.

The Malaysian Government hopes that with the creation of a Disaster Management Mechanism as reflected in MNSC Directive 20, the handling and resolving of disaster could be carried out in a more coordinated manner with the integrated involvement and mobilisation of related agencies. All these will in turn ensure that Malaysia has credible disaster management machinery that is able to perform in unpredictable disasters.

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