

### 3.3.8 Singapore

#### Singapore

#### Disaster Management in a City State

##### Introduction

Singapore is a small city-state with a population of about 4.2 million people, 80% of whom live in high-rise buildings. Geographically, Singapore is located just outside the 'Pacific Rim of Fire' and is thus spared from the ravages and destruction caused by natural phenomena such as earthquakes and volcanic eruptions. However, being highly urbanized, Singapore's main challenges are man-made and technology-based disasters. Examples of major incidents are the collapse of the six-storey Hotel New World in 1986 and the SARS crisis in 2003. The two best practices that will be shared in this paper are Singapore's disaster response system and the experience of managing the SARS crisis.

##### Section 1: Disaster Response System

In Singapore, the lead agency for disaster response is the Singapore Civil Defense Force (SCDF). It has a workforce of about 5,100 staff and operates on a three-tier command structure, consisting of HQ SCDF commanding four territorial Civil Defense Divisions (CDD). The CDDs command 14 fire stations, which provide the resources for incident management on the ground. Satellite Fire Posts (SFPs) have also been established for fire fighting and emergency response, to bridge any operational gaps, thus enabling faster response to incident sites whenever incidents occur. The SFPs, unlike Fire Stations, were built into existing buildings and infrastructure. The advantage of these SFPs is that they can be relocated quickly and at a low cost when the need arises. To date, the SCDF has established 22 SFPs within the community heartlands and residential districts. In addition, the SCDF also operates two training institutions, namely the Basic Rescue Training Centre (BRTC) and the Civil Defense Academy (CDA). The latter is a purpose-built training academy, equipped with a wide range of training facilities. The CDA is dedicated to equipping not only SCDF officers, but also the international community with the knowledge and skills to protect and save lives and property.



Regular exercises conducted to test the joint multi-agency response and validate the Ops CE plan.

The SCDF has a sound and well developed disaster response framework. In the event of any major disaster, the SCDF will activate the national response plan code-named the Operations Civil Emergency (Ops CE) Plan, which outlines the work of the SCDF and all the Related Agencies (RAs) in the management of an incident. Under this plan, the SCDF as the Incident Manager (IM) is in overall charge of multi-agency response. The IM directs and coordinates all the agencies' ground response forces through the Joint Planning Staff (JPS, consisting of representatives from all agencies) who support the IM with specialist advice for planning and mitigation of the incident. The Ops CE Plan is exercised according to various scenarios, such as oil refinery fires, air crashes, fires in high-rise buildings and building collapses.

Such exercises are conducted regularly on an annual basis to ensure that all agencies involved are familiar with their roles and function and to validate the capabilities for incident management.

Singapore also has a response plan for international disasters. Under this plan, the SCDF has a rotating Overseas Rescue Contingent on standby at all times, ready at two hours' notice to render assistance. This Contingent was deployed in several regional incidents such as the Baguio City earthquake in Philippines (1990), Kuala Lumpur 12-storey condominium collapse (1993) and the Taiwan earthquake (1999).

## **Section 2: Managing the SARS Crisis**

The SARS Crisis was an important episode in 2003, testing Singapore's ability to respond to the outbreak of a communicable disease. In managing the SARS Crisis, the Ministry of Health (MOH) in Singapore had a strong and clear response framework. It has implemented measures to strengthen Singapore's ability to detect new cases early and to respond effectively to contain new clusters in a SARS outbreak.

The SARS response framework provides a clear command structure for decision making. At the Operations level, the Ministry of Health Operations Group (MOH Ops Group), the operational arm of the MOH, is responsible for the planning, crisis management and co-ordination of health services and operations during peacetime. It commands and controls all medical resources during a crisis and serves as the main operational linkage between the MOH and all healthcare providers. Moreover, it is responsible for prevention and control of major communicable disease outbreaks including bio-terrorism events. It is the nerve centre for all decision-making and early-warning capabilities. With links to related agencies, the Group has both surveillance and response capabilities.

In addition, a three-pronged strategy of prevention, early detection and effective response was adopted in the management of the SARS crisis. This contained and eventually eradicated SARS during the last outbreak. By maintaining a high level of vigilance in the high-risk areas and a high level of preparedness to step up all the containment measures, Singapore is ready to meet any possible SARS resurgence. The sudden attack of SARS showed how Singapore managed to successfully isolate and eventually eliminate the virus. Furthermore, Singapore through its research and experience has shared invaluable lessons learnt and information with the worldwide community. Thanks to good management and use of information and response plans, Singapore remains our safe and secure home.

## **Conclusion**

Singapore's primary responsibilities for disaster management have evolved over time in response to the changing needs of Singapore. These disaster management capabilities will be constantly reviewed in order to keep them relevant and effective in the face of changing threats, risks and the global environment.

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