

Emergency Management in Saudi Arabia: Past, Present and Future Yassar A. Alamri<sup>1</sup> He who is secure in his house, healthy in his body and has his food for the day, has owned the world" – Prophet Mohammed

**Introduction** The management of potentially hazardous situations such as religious mass gatherings has been the duty of the people of Makkah (now part of Saudi Arabia) for many centuries. Inhabitants of Makkah used to evacuate their houses to accommodate the incoming pilgrims, and servants of the Holy Mosque used to distribute cold water to quench pilgrims' thirst. This concept of serving mass gatherings formed the nucleus of the first emergency management plans in the Kingdom of Saudi Arabia. Today, Saudi Arabia covers most of the Arabian Peninsula and has faced many other risks in addition to those arising from religious mass gatherings. In order to improve on the existing emergency management policies and plans, it is of crucial importance to examine the current emergency management system. It is also pivotal to reflect back on previous disasters and learn lessons from them to avoid committing the same mistakes again. It is saddening to discover that most emergency policies implemented are either out-of-date, not fully documented or not easily obtainable. This chapter will look at current hazards and vulnerabilities in Saudi Arabia. It will also provide a list of major disasters in Saudi history, and describe the current emergency management policies in the country. Finally, lessons learned from these disasters and areas of improvement will be critically discussed.

**The Kingdom of Saudi Arabia** The Kingdom of Saudi Arabia is located in western Asia. It takes up most of the Arabian Peninsula, with a surface area of 2,149,690 km<sup>2</sup> and a population of 27.137 million (Central Department of Statistics and Information, 2010, United Nations: Statistics Division, 2008). Of this population, 30% are 14 years or younger and only 4.75% are 60 years or older. International migrant stock, such as guest workers, represent 27.8% of the total population (Ministry of Economy and Planning, 2010–2014). Saudi Arabia's population living in rural areas makes up 18.6% of the total population. The geography is varied, from coastal regions in the eastern and western parts, to mountainous regions in the south-west, and finally to the Rub' al Khali desert running along the country's southern borders where almost no life exists. The country is divided into 13 provinces which are further divided into governorates, each of these has a capital that is headed by a governor. Figure 1 shows a simplified map of Saudi Arabia and its major cities.

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**Hazards in Saudi Arabia** A hazard can be thought of as a potential risk endangering human life or health, property or the environment. However, if this risk does lead to an incident, it is referred to as an emergency situation or, if the damage is overwhelming, a disaster. Such events are often the result of human factors, environmental hazards or natural causes. Although considerable overlap occurs between these factors, there is usually one factor that contributes significantly more than the others. This section will review hazards in Saudi Arabia classified according to the main contributory factor.

**Human-related risks: Terrorist attacks:** Up until recent years, terrorist attacks have very rarely, if at all, been heard of in Saudi Arabia. Citizens and foreigners have co-habitated for decades, even before the foundation of the current Saudi Arabia. This was especially the case in areas