### **BOOK REVIEW**

by Ron Shamir, Victoria Country Fire Authority

Okuyama, Yasuhide & Chang, Stephanie E. (Eds.) 2004 Modelling Spatial and Economic Impacts of Disasters, Springer Publishing, Germany.

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Modelling Spatial and Economic Impacts of Disasters is a new book published in 2004 by Springer Publishing as part of the Advances in Spatial Science series. The book is a sound foundational text as well as a welcomed call for increased improvement, innovation and collaboration in emergency or disaster modelling, and therefore, in emergency management.

The book is best described as an extensive, well-organised literature review of disaster impact modelling research. Examples include the measurement of varied impacts of disasters, the influence of information provision on risk perception, and the dynamics of recovery.

The chapters can be grouped into three parts. These are Conceptual and Modelling Issues, Economic Models, and Integrative Models.

These provide the researcher with a useful timeline spanning fundamentals, recent innovations and ways forward. Researchers are the likely principal audience for the book, however, professionals in emergency management, government policy, insurance,

disaster recovery, and regional social and economic management would also benefit from the content.

An introduction chapter by the editors provides the book with context and cohesion. Together with a number of clear examples in other chapters and ample recent references, the book may have academic applications in geomatic or mathematical modelling curricula, as well as emergency management.

Disaster is defined in the book as the realisation of a hazard. The realisation aspect is significant given the editors' argument that conventional economic models frequently fail to account for the abruptness and intensity of disasters.

The topics covered and their sequence exposes the reader to a modelling field of ever increasing complexity and dimensionality. The editors clearly hope to bridge the gap between models (and modellers) of physical phenomena and social science models.

The high degree of fidelity to modern risk management practice is a welcome aspect of the book. While an absolute fidelity in terminology is unlikely, the book emphasizes a number of fundamental concepts. An example is the importance of the vulnerability component in impact analysis.

It is difficult to imagine a contemporary book on disaster modelling that does not reflect on the impacts of the September 11 2001 attacks. This book includes several useful references to the events without underemphasizing the impacts of other significant disasters, including significant natural disasters in the last decade. The chapter, in part, investigates longer-term "ripple" effects generated by often neglected aspects of recovery, such as public policy.

The book contains a number of recommendations that are pertinent to emergency management agencies. Particularly gratifying to a modeller is the recognition that attention to modelling fundamentals is as critical as commitment to innovation. The core business databases of emergency management agencies are often statistically young and reflect a variety of implementation artifacts. In his discussion on broadening the focus of future research, Adam Rose refers to the improvement of the empirical basis of models as the "top priority" and that it is critical to model acceptance by policy and decision makers.

It is not surprising, given significant disasters of the last decade, that the natural disaster examples are dominated by earthquake events. Modellers in emergency management agencies in Australia may need to extrapolate some of the concepts in the book in order to realise practical applications for local research.

Overall, the book is a good synopsis of fundamental concepts, current research and future directions. The additional contribution of the editors and chapter authors is a consistent call for better models for the future. There are few modellers in the Australian emergency management sector that would not share this view.

In addition to disaster and emergency modelling specialists, the book is recommended to risk management professionals, policy makers, senior managers and researchers in emergency management related roles.

#### Author

Ron Shamir is a spatial modeller with the Victoria Country Fire Authority (CFA). For the past two years Ron has been conducting a review of risk modelling at CFA and other emergency service organisations.

# interesting websites







#### **World Vision**

http://www.worldvision.com.au/index.asp

World Vision is a non-denominational, Christian humanitarian aid and development agency whose philosophy regards emergency responses and relief as only the first step. The second step is to establish rehabilitation programs to help people rebuild their lives, and development programs that will enable people to protect themselves against future disasters.

Their website provides information about their work globally and, in particular, provides up to date information about efforts focused on the Tsunami-effected areas. Information available includes relief updates, news on affected project areas and communities, and how to support the effort.

#### The Australian Red Cross

http://www.redcross.org.au/default.asp

The Australian Red Cross is part of the International Red Cross and Red Crescent Movement, the largest humanitarian organisation in the world with more than 97 million volunteers worldwide. The Red Cross is independent of government and is without any political, religious or cultural affiliation.

Their website provides information on their global humanitarian efforts and allows visitors to donate funds online. The news section provides updates on all relief activities including the Asian earthquake and Tsunami crisis.

#### Oxfam Community Aid Abroad

http://www.oxfam.org.au/about/index.html

Oxfam Community Aid Abroad is an Australian, independent, not-for-profit, secular, community-based aid and development organisation. Across 31 countries, Oxfam works in partnership with local communities to overcome poverty and injustice. Their work includes long-term development projects, responding to emergencies, and campaigning for a fair and just world.

Their website outlines projects underway and provides visitors with easy ways to donate funds to aid the emergency relief efforts currently being undertaken in areas of Indonesia and around the world.

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