

Book Review

**Social, Legal, and Legislative Challenges to Disaster Management**

Brian Williams<sup>1</sup>

Simon Butt, Hitoshi Nasu, and Luke Nottage, eds., *Asia-Pacific Disaster Management: Comparative and Socio-Legal Perspectives* (Heidelberg: Springer 2014). 303 pp. \$129.00 (hard cover), ISBN: 978-3-642-39767-7.

Butt, Nasu, and Nottage create a compilation of disaster management cases covering the Asia-Pacific region from Japan and China to Australia and New Zealand. The cases focus on social, legal, legislative, and political factors in disaster management. A number of the chapters are derived from papers presented at the Socio-legal Norms in Preventing and Managing Disasters in Japan: Asia-Pacific and Interdisciplinary Perspectives conference in 2012 at the University of Sydney. There are two main research questions proposed as a focus of many contributors to the book. First, does the natural classification of a disaster affect preparedness and response in disaster management? Second, do patterns of recovery differ significantly between countries?

Chapter one provides a base for the book with definitions of disaster and disaster management as well as an examination of the social and legal aspects of disaster management. The many definitions of disaster come from the international perspectives of the United Nations International Strategy for Disaster Reduction (UNISDR), the Red Cross, and the Red Crescent. The single definition of disaster presented here is distilled from these sources. Under this definition, disaster requires a significant societal disruption. The disruption should pose a significant and widespread threat to life, health, and property as well as to the environment. The threat can come from a natural or human act. The period of occurrence can be sudden or extended, with armed conflict explicitly exempted from being considered a disaster. With this definition of disaster in mind, Butt, Nasu, and Nottage propose three stages for disaster management. Disaster mitigation includes prevention measures and becomes especially relevant when discussing policy and legal aspects of disaster management. The relief stage refers to the immediate and short-term response to a disaster. The recovery stage refers to the long term needs in the aftermath of a disaster and includes monetary compensation for loss from disaster. Based upon the given definition and descriptions of disaster, the book focuses on disasters that are sudden in nature and triggered by natural causes.

The chapter goes on to detail the social and legal aspects that must be considered in studying disaster management. Social capital involves the formation of support networks that promote recovery when a disaster affects an entire community and suspends normal community activities. Un-

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<sup>1</sup> Department of Public Administration, University of North Texas.

Understanding social connections is important in analyses of vulnerable populations and stakeholder involvement in the disaster management process that creates the legal and regulatory framework for dealing with disasters. Such legal and regulatory actions serve to protect vulnerable populations, including the poor, females, children, and groups that experience discrimination. For example, non-native speaking individuals in Japan are vulnerable during a disaster just as non-English speaking immigrants in the United States are found to be more vulnerable than native-born Americans during a disaster. Japan is used as an example, and three main theories that have been used to explain legal aspects of disaster management in Japan are described as culturalist, elite management, and economic rationalist. Both culturalist and elite management result in an aversion to the law. Culturalist theory says that Japanese rely upon social superiors for guidance, due to a culturally engrained aversion to the law. Elite management theory proposes that big business and political players encourage an aversion to the legal system. The third and less accepted economic rationalist theory posits a public that accepts decisions made to take risks based on economic advantage that could result in disaster as rational. In summary, the culturalist and elite management theories are more apparent in the Japanese case study with culture presented as playing a major role in the disaster management process.

Six of the fourteen chapters cover Japan with an emphasis on the “3/11 triple disaster” of 11 March 2011 when an earthquake and subsequent tsunami caused the failure of the nuclear facilities in Fukushima. The triple disaster, initiated by a natural hazard, resulted in a need to evaluate health perspectives, regulatory failures, energy security, and communication with the public. The basis for the evaluations in chapters two through seven are founded upon social and legal premises. The tort legal aspects refer to the ability of those affected by disaster, natural or man-made, to petition through legal channels for monetary and non-monetary recoupment for losses incurred. The legislative legal aspects deal broadly with policymaking, regulatory, and political needs and barriers to disaster management.

Six principles are provided that should be followed to enhance disaster response and recovery in Japan. First, though it is acknowledged that a complete return to pre-disaster conditions is virtually impossible, a comprehensive redress should include health, community, emotional, and spiritual compensation. This comprehensive redress calls for more than just monetary compensation with those responsible for the disaster held accountable. Second, the health of recovery workers should be protected, especially concerning nuclear related clean up needs. Third, building social capital in the community will help to ensure individuals participate in the rebuilding process. Fourth, preparedness should be comprehensive at all levels of governance and provide a real measure of safety and protection to mitigate disaster. Fifth, effective regulation requires a separation of regulatory agencies from regulated industry to break agency capture for real protection of the public from hazards created by industries such as the Tokyo Electric Power Company (TEPCO) nuclear plant. Sixth, trust in government must be established. The six principles can be applied to all disasters, natural or man-made. However, the case study provided in chapter three focuses on the nuclear portion of the 3/11 triple disaster.

Policy and political failures were made clear by the extensive damage incurred and difficulties experienced in response and recovery operations in the wake of the 3/11 triple disaster. The authors here blame some of these failures on a nuclear policy in Japan guided by political motivations and connections tied to donations to political parties by energy companies, such as TEPCO. These observations support the previously mentioned elite management theory of disaster management. For example, the Daiichi nuclear plant was located in Fukushima, Japan. The ability to foresee a possible disaster caused by an earthquake based upon previous earthquakes

that occurred in the same geographical area should have resulted in a different facility locale. However, profits overshadowed safety concerns and served to guide location of nuclear plants in areas along the coastline where opposition is low. It is proposed that the earthquake and resulting tsunami would have been manageable had the nuclear facility not been present. Political failures and controversy additionally negatively affected the recovery process with false accusations against the Prime Minister by political opponents and energy company executives. For example, TEPCO executives made false accusations against the Prime Minister in attempts to divert attention from failures in safety protocols that could have mitigated the effects of the earthquake and tsunami on the nuclear reactor.

To examine the governmental liability of regulation failure in wake of the 3/11 triple disaster, a comparison is made with the asbestos crises in New South Wells (NSW), Australia. Liability for recompense of those affected by disaster in Japan and Australia are analyzed through the lens of tort law. The Japanese and Australian cases analyzed present similar characteristics. Japanese policy created a definition of liability that allowed the government to maintain a distance from tort liability by placing liability on the entity at fault, i.e. TEPCO. A similar situation is found in Australia with liability being relegated to the James Hardie group, regardless of any government knowledge of hazards and the wide use of asbestos products despite their known hazards to public safety and health. Three main differences in government actions to assign liability are found between the Japanese and Australian cases. In Japan, the government pressured TEPCO to accept responsibility and initiate compensation relatively soon after the 3/11 triple disaster in return for government monetary support to pay tort claims. This action allowed TEPCO to stay in business, whereas full monetary responsibility would have bankrupted the company. The action additionally spared the government from immediate liability claims that would have occurred had TEPCO not quickly taken responsibility. The funding provided for TEPCO compensation in return for shares in the company resulted in the government owning more than 50% of the stock shares. In Australia, the James Hardie group established a trust with the NSW government to pay compensation claims and eventually became a government bailout. However, the NSW government is restricted to non-operational representation on the James Hardie group board. The Japanese 3/11 triple disaster is especially controversial. The controversy lies in the policies that place liability on the operator of a nuclear facility in the event of an incident. The policy has a clause that exempts the operator from liability if the radiological damage is a result of naturally occurring radiation. The government decided that the exemption clause would cause undue hardship upon those affected and could not be enacted thus placing all liability upon TEPCO.

In light of the regulatory failures of the 3/11 triple disaster, the search for energy security in Japan have shifted to the use of nanotechnology. As nuclear power has resulted in lowered public confidence in the government, nanotechnologies have become central to Japan's energy policy. However, the use of nanotechnologies increases the potential for future disaster. Just as asbestos was a public health hazard in the James Hardie group case in Australia, nanotechnologies pose their own hazards. Nanotechnologies have toxic properties when used to produce solar electricity that can exacerbate a health hazard disaster to the public in Japan. Natural sources of water and air can distribute toxic particles as exposure increases to nanotechnologies. It is proposed that nuclear energy is not going away. Therefore, safety and security needs must be applied through disaster management policies to the use of nanotechnologies to help mitigate future disasters.

The authors assert that communication with the public is a necessary element to increase disaster preparedness. One method of communication is through cultural avenues such as anime. In Japan, culture plays a major role in the public trust, or mistrust, of government and the media. Government failures, such as those of the 3/11 triple disaster further degrade public trust. Within Japanese culture, science fiction, such as displayed through anime, has become widely accepted, leading to a merging of scientific information with science fiction. For example, the authors explain that characters such as Lady Pluto and Count Uranos are used to represent the elements of plutonium and uranium to educate the public on the hazards of both elements as sources of energy. Both are attractive and boast many advantages over other energy sources but come with a hefty price for contamination. Complex scientific terms are placed in a narrative that allows humor to facilitate public acceptance of the information.

Chapters 8 and 9 cover disaster management from a legal perspective in Indonesia. Reconstruction efforts are compared to Japan's Fukushima reconstruction efforts. Reconstruction policies, in the wake of the Aceh tsunami in 2004 and the Nias earthquake in 2005, required comprehensive redress for the victims that included a rebuilding of the social structure for affected areas. The authors explain that the reconstruction has been largely successful in Aceh and Nias based on a comparison of the pre-disaster and post disaster socio-economic conditions there. The speedy and successful recovery in Indonesia is attributed to a centralized reconstruction agency that was created with adequate power to coordinate agencies at all levels. Alternatively, reconstruction efforts in Japan have been hindered by a powerless reconstruction coordination agency. One problem with concentrating reconstruction coordination power is that the potential for government corruption is enhanced. In Japan, approximately one third of reconstruction funds are found to be used for purposes other than reconstruction, such as road construction in Okinawa and sports stadium repairs in Tokyo. Though not all corruption can be avoided, reconstruction authorities in Indonesia in 2005 implemented extensive anti-corruption efforts through investigative units with prosecutorial capabilities. In Japan, reconstruction agency recommendations were non-binding. However, in 2007, the Disaster Management Law (DML) was enacted in Indonesia. The DML created Regional Disaster Management Authorities (RDMA) that produced a decentralized disaster management system in which the DML has no formal power over the RDMA's. Critics of the RDMA propose that a strong centralized government is necessary for effective disaster management and that the decentralized disaster management system may lead to inefficient disaster preparedness.

Chapter 10 turns to disaster management in China with a focus on the legal system, both legislative and judicial. The authors propose that many of the difficulties in disaster management in China stem from the unitary governmental structure. Unlike some other Asia-Pacific countries, there is no separation of powers in China as defined by a singular horizontal and vertical authority in the legislative, judicial, and administrative centralized governance. The 2007 Emergency Response Law of the People's Republic of China (Emergency Response Law) provides a generalized comprehensive outline for disaster management in China with support from State Council administrative regulations. Two main impediments to effective disaster management can be found in the text. The vaguely written law creates conflict between local governments trying to acquire funds and resources. Though the system uses a strong centralized government, the legalities and responsibilities outlined in the Emergency Response Law are generally used by government agencies to quash nongovernmental inquiries and attempts to hold the government accountable. Additionally, while the law outlines requirements that align with the principles of social

capital, effective regulations, and real preparedness, intragovernmental conflicts and lack of accountability serve to undermine the apparently powerless central government legislation.

The next two chapters of the book examine New Zealand and the recovery efforts after the Canterbury earthquakes of 2010 and 2011. The Canterbury Earthquake Recovery Act 2011 (CER Act 2011) provides comprehensive redress for those affected by the disaster by providing for social, cultural, and environmental recovery as well as economic recovery. However, in the search for a comprehensive redress, the government sought to create a new and improved city in the Christchurch central business district (CBD) by zoning uninhabitable lands and setting regulations for the purchase of properties only by the state at a rate determined by the state if the property owners could not perform reconstruction. In doing so, the Minister revoked the ability for property owners to seek legal redress in the environmental court to fight the State acquisition of their properties. It was found that these actions violated both the rights of the citizens and the CER Act 2011 that called for public and community participation in the recovery process. A second issue is the violation of human rights for those that are disadvantaged. The authors propose that when disadvantaged groups are treated like the general population, they are further disadvantaged. For example, such groups have limited access to public information and temporary housing. Though international laws provide protections for disadvantaged and vulnerable groups in the event of disaster, the resolutions are non-binding with no legal authority other than international admonishment.

The final two chapters address two proposals for future disaster management research in tax policy and international nuclear law. First, it is proposed that taxes should provide funds for examining disaster preparedness and recovery. Disaster management operations such as preparedness are more often difficult to secure funding through tax revenue sources. One exception is the allotment of tax deductions loss in a nationally proclaimed disaster. Second, international laws have been created to supplement previously created treaties with the intention to support disaster preparedness and mitigation. International treaties such as the Convention on Nuclear Safety place facility safety responsibility and liability on the facility operator with the governing country having the responsibility to create legislation in accordance with the content and substance of such treaties. The Notification Convention and Assistance Convention require participating countries to notify other states in the event of a nuclear incident and to provide assistance to participating countries in the event of a nuclear incident. However, there is no mechanism of punishment for failure to adhere to international treaties. The question of compensation responsibility (state or operator) remains a point of controversy. This controversy suggests that international laws and treaties do not result in real disaster preparedness or comprehensive redress. This apparent lack of power of international laws is a subject for further research to determine the effect it has on disaster management in individual countries.

There are two main criticisms of the book. First, the book does not provide an overall comparative analysis of Asia-Pacific disaster management. An implied goal is to provide comparative and socio-legal perspectives. While each chapter provides an analysis, and on occasion a comparison between countries, the expected comparison of Asia-Pacific countries as a whole is absent. Second, the stated research questions are not specifically answered. It is left to the reader to make the connection between the individual chapters and the editors' proposed research questions. However, these two criticisms should not be taken as detrimental to the books contributions. The text provides two major contributions to disaster management research. The first is that a number of research needs are identified throughout the book. Research needs include the need to consult with vulnerable populations in disaster management policy formulation, public

and community communication methods to increase disaster management effectiveness, analysis of national tax systems as indicators of disaster preparedness and management, and examination of the effect of international laws on disaster management. The second major contribution is an examination of individual expectations in the event of a disaster in the context of Asia-Pacific government action. This can give insight for researchers in understanding why immigrant populations from Asia-Pacific countries act and react concerning disaster preparedness, mitigation, response, and recovery.