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## The Necessity for Specific Legislation in Controlling Flood Disasters in Malaysia

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**Nurul Jannah binti Mustafa Khan**

Master of Corporate Law

Faculty of Law, Universiti Teknologi MARA, Shah Alam.

### ABSTRACT:

This article which is drawn from an ongoing research on the laws relating to flood disaster attempts to examine the necessity of a specific legislation to govern flood disaster management system. This involves, amongst others, an examination on the National Security Council Directive No. 20, and also other legislations such as the Street, Drainage and Building Act 1974, the Drainage Works Act 1954 and Land Conservation Act 1960 that play a part during the occurrence of flood. In this article, a comparative analysis with the legal position in Queensland, Australia through their Disaster Management Act 2003 is made as it would provide some guidelines for Malaysia to learn in providing a specific legal framework governing flood system to effectively manage flood.

**KEYWORDS:** (*flood disaster, specific legislation, disaster management*)

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### INTRODUCTION

This article aims to examine on the necessity for the creation of specific legislation in controlling flood disaster in Malaysia. It should be emphasized that flood disaster in Malaysia has alarmingly increased largely due to human activities that has changed the physical characteristics of the land itself such as the destruction of forests and hill slopes that has lead to flood disaster.<sup>1</sup> Flood disaster can occur without warning, creating chaos in an unprepared community.<sup>2</sup> In Malaysia, various parties and legislations play a role in managing flood disaster.<sup>3</sup> For an example, when a flood disaster occurred, the legislations that play a part in managing flood would be, amongst others, the Streets, Drainage and Buildings Act 1974 and the Land Conservation Act 1960.<sup>4</sup> The government is keen to reduce flood but the many official responses employed hitherto that have been responsible to control flood have not been entirely successful in the overall

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<sup>1</sup> Chan N.W. (1997). Increasing flood risk in Malaysia: Causes and solutions. *Disaster Prevention and Management*, 6(2), 72 – 86.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

management of floods.<sup>5</sup> This is largely due to bureaucratic nature of government agencies and no specific legislation to govern this interaction amongst government agencies rendering flood control to be not effective as it ought to be.<sup>6</sup>

Guidelines in handling disaster in Malaysia based on the official document called "The Policy and Mechanism on National Disaster and Relief Management (hereinafter referred to as 'MNSC').<sup>7</sup> The Policy under MNSC Directive No.20 clearly stated the guidelines on the management of disasters including the responsibilities and functions of the various agencies under an integrated emergency management system.<sup>8</sup> 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 minimize damage to the environment, respond during emergencies and provide assistance and establish a recovery system to ensure the affected community's return to normalcy.<sup>9</sup> However, there are contentions that the Directive by itself is not capable in managing disasters as it is not a legal framework with comprehensive provisions.<sup>10</sup>

Natural disasters are geophysical events, such as earthquakes, landslides, volcanic activity and flooding, nevertheless, these events are not only the result of the process per se, it is the result of the human systems and their associated vulnerabilities towards them.<sup>11</sup> It is contended that the transformation of geophysical events into natural disasters occurred simultaneously with the appearance of the human system, when human beings began to interact with nature as this connotes the starting point of the interrelation of the human system with nature.<sup>12</sup> That is why the

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<sup>5</sup> Ibid.

<sup>6</sup> Chan N.W. Flood disaster preparedness, warning evacuation and relief In Malaysia. *The Geographical Journal*, 162(3), 312-325.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> National Security Council. Directive no.20, Policy and mechanism of national disaster management and relief. Malaysia: Prime Minister's Department.

<sup>10</sup> Zaiton Hamin, Mohd Bahrin Othman, & Zaharah Elias. (2012). Risky society, chaotic life: Disaster management laws timely? Paper presented at the International Conference On Innovation, Management And Technology Research 2012, Melaka, Malaysia.

<sup>11</sup> Alcantara-Ayala, I. (2002). Geomorphology, natural hazards, vulnerability and prevention of natural disasters in developing countries. *Geomorphology*, 4(7), 107 – 124.

<sup>12</sup>Long, H. (2011). Disaster prevention and management: A geographical perspective. *Disaster Advances*, 4(1), 3-5.

humans need to be responsible in managing the disaster properly as flood disaster is a result of humans' own doing affecting the community.

## THE NEED FOR SPECIFIC LEGISLATION?

Floods are the major disaster affecting many countries in the world year after year, including Malaysia.<sup>13</sup> They require very different treatment, which is reflected in planning and operational management systems.<sup>14</sup> These systems must be able to address the needs of any community which is suffering from the effects of a disaster, and which requires outside assistance in order to cope.<sup>15</sup> However, emergency planning in Malaysia could be said to suffer from a lack of precision in some of its fundamental concepts where the need of coordination is somehow still vague.<sup>16</sup>

Queensland Disaster Management Act 2003 defines 'an event' to include 'flood',<sup>17</sup> as according to Queensland Disaster Management Act 2003, a disaster' is a serious disruption in a community, caused by the impact of an event, that requires a significant coordinated response by the State and other entities to help the community recover from the disruption.<sup>18</sup> The Act binds all persons in the country.<sup>19</sup> The definition by the act shows the emphasis of a coordinate response by the government in handling a disaster. In Malaysia, the National Security Council Directive No.20 also provided the definition of disaster where disaster is defined as "an incident that occurs unexpectedly, complex in nature, resulting in the loss of lives and damage to properties and the environment as well as interfering in the daily activities of the local community".<sup>20</sup> The Asian Disaster Reduction Center 2003 defined disaster as a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using only its own resources.<sup>21</sup>

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<sup>13</sup> Mohd. Safie Mohd., Buang Alias, & Dzurllkanian Daud. (2006). *GIS analysis for flood hazard mapping: A case study in Segamat, Johor*. Paper presented at Seminar Nasional GIS 2006: Geographic Information System Application For Mitigation In Natural Disaster, Universiti Teknologi Malaysia, Johor.

<sup>14</sup> State Disaster Management Group. (2006). *State Disaster Management Group Annual Report*. Retrieved from [www.disaster.old.gov.au/disaster](http://www.disaster.old.gov.au/disaster).

<sup>15</sup> Ibid.

<sup>16</sup> Ibid at 10.

<sup>17</sup> Queensland Disaster Management Act 2003, Section 16(1)(A).

<sup>18</sup> Queensland Disaster Management Act 2003, Section 13(1).

<sup>19</sup> Queensland Disaster Management Act 2003, Section 5(1).

<sup>20</sup> National Security Council Directive No.20.

<sup>21</sup> Asian Disaster Reduction Center (ADRC). (2011). *Country Report of Malaysia On Disaster Management System In Malaysia*. Retrieved from <http://www.adrc.asia>.

Kansas Water Science Centre defined flood as an overflow or inundation that comes from a river or other body of water and causes or threatens damage.<sup>22</sup> There is no disagreement in the view that floods are especially problematic, as their magnitude is affected by anthropogenic factors that is caused by humans such as river engineering and land use.<sup>23</sup>

Looking at the above definitions of flood disaster by various writers or organizations, it cannot be disputed that a disaster is an intense event with a natural, technological or social cause that has consequences in terms of casualties, destruction, damage and disruption.<sup>24</sup> This unexpected event caused a huge loss of life and property.<sup>25</sup>

It can be seen that flood disaster is a serious issue effecting the community tremendously whether mentally or physically, thus it need to be handled efficiently and with prepared knowledge where managing disasters involve extensive preparations for the disasters and planning on how to prevent them from happening and to mitigate the effect of disasters when it does occur.<sup>26</sup> There is also a need to coordinate plans of actions during disaster and post-disaster.<sup>27</sup>

Disaster management is a co-ordinate set of protocols for managing an adverse event, whether expected or not, in the future.<sup>28</sup> Although the ideal response to a disaster does not exist because each disaster will differ, nevertheless, any response must be a combined and coordinated operation.<sup>29</sup> Co-ordination is the opposite of subordination; it refers to placing things in their proper positions relative to each other and the system of which they form part; co-ordination is

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<sup>22</sup>Flood Definitions. Retrieved 27 November 2012, from <http://ks.water.usgs.gov/waterwatch/flood/definition.html>, accessed on 27 November 2012.

<sup>23</sup> Ibrahim M. Shaluf , Fakharu'l-razi Ahmadun, & Aini Mat Said. (2003). A review of disaster and crisis. *Disaster Prevention and Management*, 12(1), 24 – 32.

<sup>24</sup> Perry, R.W. & Lindell, M.K. (2004). *What is a disaster? New answers to old questions*. Philadelphia, Xlibris Press.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid at 16.

<sup>27</sup> Ibid.

<sup>28</sup> Alexander, D.E. (2000). Scenario methodology for teaching principles of emergency management. *Disaster Prevention and Management*, 9(2), 89-97.

<sup>29</sup> Ibid.

the action of joint operations.<sup>30</sup> It is agreed by that there is a need for a country to have a standard model to manage disasters as this will definitely improve disaster recovery.<sup>31</sup>

A comprehensive approach to disaster management should include four phases which are prevention, preparedness, mitigation, and recovery.<sup>32</sup> Emergent phenomena are most likely to occur when demands are not met by existing organizations and when traditional tasks and structures are insufficient or inappropriate.<sup>33</sup> Non-structural solutions that include implementing legislations in managing disasters are largely preventive efforts.<sup>34</sup> There is a view that engineering works did not seem to have the required effect of controlling floods and reducing flood loss.<sup>35</sup> There is a variety of non-structural solutions such as legislations which can also be used to control floods and reduce flood loss where these solutions are less expensive than structural ones which usually need heavy capital expenditure and can be used to supplement existing structural solutions.<sup>36</sup> Many non-structural solutions can also be implemented quickly as compared to the construction of dams and reservoirs which may take years.<sup>37</sup>

Legislation can be used to control land use, development and environmental degradation.<sup>38</sup> The solutions to flood comprise land use planning and control, social resettlement, disaster management, emergency evacuation, relief and rehabilitation and indeed, effective flood

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<sup>30</sup> Hills, A.E. (1994). Co-Ordination and disaster response in the United Kingdom. *Disaster Prevention and Management*, 3(1), 66 – 71.

<sup>31</sup> Ibid.

<sup>32</sup> Prabhas Chandra Sinha. (2006). *Disaster management process law, policy and strategy*. India: SBS Publishers.

<sup>33</sup> Drabek, T.E. and Mcentire, D.A. (2003). Emergent phenomena and the sociology of disaster: Lessons, trends and opportunities from the research literature. *Disaster Prevention and Management*, 12(2), 97 – 112.

<sup>34</sup> Chan N.W. (1997). Increasing flood risk in Malaysia: Causes and solutions. *Disaster Prevention and Management*, 6(2), 72 – 86.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

<sup>38</sup> Chan N.W. (2004). Managing rivers in the 21<sup>st</sup> century: Issues & challenges. *Disaster Prevention and Management*, 6(2), 409 – 419.

control legislation.<sup>39</sup> It is submitted that clear policy, necessary laws and legislation are important mechanism in flood management.<sup>40</sup>

Risk reduction was an ongoing activity that extended into the response to a given event.<sup>41</sup> In this regard, there was acknowledgement that the saving of lives and prevention of loss and damage to property, infrastructure and the environment also depended on rapid and effective response operations which require mechanisms for integration, coordination, cooperative management and authority for decision making.<sup>42</sup> The requirement for the application of joint standards of practice and a uniform approach were key characteristics of the policy proposals.<sup>43</sup>

The Asian Disaster Reduction Center (ADRC) recognized the importance to form a comprehensive disaster mitigation framework, the relevant laws and regulations in order to apply to all of the disaster phases of prevention, mitigation and preparedness emergency response as well as recovery and rehabilitation.<sup>44</sup> ADRC also mentioned in their reports that a monsoonal flood is one of the major disasters in Malaysia i.e. yearly an estimated 29, 800 square kilometers are flooded, affecting 4.82 million people, and causing physical damages amounting to RM 915 million.<sup>45</sup> ADRC identified the causes that have worsened the situation of flood disasters in Malaysia are due to the rapid development, unplanned urbanization, climate change and environmental degradation.<sup>46</sup>

The Directive only serves to provide comprehensive guidelines for disaster management in Malaysia as by itself the Directive is not capable of managing disasters as it is not a legal framework with comprehensive provisions.<sup>47</sup> In discussing on the necessity to have a specific legislation to control flood disaster in Malaysia, there is a need to pass a new Flood Act, Flood

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<sup>39</sup> Ibid.

<sup>40</sup> Tingsanchali, T., & Fazlul Karim. (2010). Flood hazard assessment and risk-based zoning of a tropical flood plain: Case study of the Yom River, Thailand. *Hydrological Sciences Journal*, 55(2), 145-161.

<sup>41</sup> Reid, P., & Van Niekerk, D. (2008). A model for a multi-agency response management system (MARMS) for South Africa. *Disaster Prevention and Management*, 17(2), 244 – 255.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

<sup>44</sup> Ibid.

<sup>45</sup> Ibid

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Asian Disaster Reduction Center (ADRC). (2011). *Country Report of Malaysia On Disaster Management System In Malaysia*. Retrieved from <http://www.adrc.asia>.

<sup>47</sup> Ibid

Enactment of a River Law which deals directly with flood protection and control.<sup>48</sup> It is contended that in Malaysia there are many laws relating to flood control such as The Land Conservation Act 1960 (aimed at protecting soil erosion and silting, hence prevents downstream flooding), the Drainage Works Ordinance 1954, Street, Drainage and Building Act 1974, Mining Enactment 1929, Irrigation Areas Ordinance, and the Housing Development Act (Licensing and Control) 1965 but none of them deal directly with flood protection or flood control.<sup>49</sup>

The Queensland Disaster Management Act 2003 forms the legislative basis for disaster management activities within all levels of Government and the Queensland Disaster Management System.<sup>50</sup> Disaster management arrangements, roles and responsibilities in Queensland were formally defined by the Queensland Disaster Management Act 2003, and supported by the Queensland State Disaster Management Plan 2008, the Disaster Management Strategic Policy Framework 2005 and associated guidelines.<sup>51</sup> Local government is clearly identified within the state disaster management system as the key management agency for local disaster events, and has significant and wide ranging responsibilities.<sup>52</sup> Additionally, there are a variety of service-maintenance, coordination and communication responsibilities.<sup>53</sup> In short, under the Disaster Management Act 2003, local governments with their local disaster management groups are expected to develop the capacity to deal with local events, coordinate with higher disaster management tiers as needed, and facilitate a "prepared community".<sup>54</sup> Although there are some variations in disaster management systems in other states of Australia, the significant and substantive role of local governments is generally consistent.<sup>55</sup>

All levels of government are responsible for disaster management under a tiered "all agencies" approach.<sup>56</sup> The tiered structure of Queensland's disaster management arrangements, involving

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<sup>48</sup> Keizrul Abdullah. (2002). *Integrated river basin management: Towards sustainable development*. Penang: Penerbit Universiti Sains Malaysia.

<sup>49</sup> Ibid

<sup>50</sup> Bajracharya, B., Childs, I., & Hastings, P. (2011). *Climate change adaptation through land use planning and disaster management: Local government perspectives from Queensland*. Paper presented at Pacific Rim Real Estate Society Conference Climate Change And Property: Its Impact Now And Later, Gold Coast, Australia.

<sup>51</sup> Ibid.

<sup>52</sup> Ibid.

<sup>53</sup> Ibid.

<sup>54</sup> Ibid.

<sup>55</sup> Ibid.

<sup>56</sup> Ibid.

State, District and Local levels enables a progressive escalation of support and assistance through each tier as required.<sup>57</sup>

## CONCLUSION

As can be seen, disaster management in Queensland Australia is regulated and enacted as a law itself where it is legally enforceable. This is in contrary from Malaysia position as specific flood disaster management legislation in Malaysia is yet to be enacted; in so far, Malaysia is relying on the Directive 20 of National Security Council and various other legislations in managing flood. Hence, it is seen as crucial to have an integrated disaster management system that could coordinate the agencies involved managing disasters.<sup>58</sup> Again, it is submitted here that by itself the Directive is not capable of managing disasters as it is not a legal framework with comprehensive provisions.<sup>59</sup>

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<sup>57</sup> Ibid.

<sup>58</sup> Ibid at 26.

<sup>59</sup> Ibid.



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## **AUTHOR'S BIOGRAPHY**

**Nurul Jannah binti Mustafa Khan** is currently a law lecturer at Universi Teknologi MARA, Shah Alam, Selangor.

She can be contacted via email [nuruljannah315546@salam.uitm.edu.my](mailto:nuruljannah315546@salam.uitm.edu.my).