

Disasters from the Perspective of Thai Society

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Abstract

This article aims to examine disaster situations from the perspective of Thai society through an academic study and an analysis of government agency reports and documents. The objectives of this study are: (1) to explore the body of knowledge related to disasters, and (2) to analyze disasters from the perspective of Thai society. The initial section of this article discusses fundamental information on disasters, including the definition of “disaster”, the types of disasters, the unique characteristics of disasters, and the impacts of disasters. Following this, the article examines the disaster situation in Thailand as a foundation for analyzing disasters from the Thai societal perspective in three key dimensions: (1) legal frameworks, policies, and planning; (2) disaster management; and (3) resource administration. These dimensions reflect Thailand’s preparedness and response capabilities in disaster management.

Keywords: Disaster, Disaster Response, Disaster Preparedness

Introduction

1. Rationale and Significance

The global climate has been undergoing continuous change, leading to an increasing number of natural phenomena that severely impact humanity. The world is facing climate change that results in unpredictable weather patterns and extreme events, which disrupt human livelihoods and hinder socio-economic development. In the past, global development has primarily focused on economic growth, with rapid exploitation of natural resources, often disregarding environmental limits and the capacity for natural recovery. This unsustainable approach has led to the depletion of natural resources and the ongoing destruction of ecosystems. The lack of careful and responsible management has contributed to the current severe environmental crisis, particularly in relation to climate variability, which correlates with global warming and intensifies natural disasters. When these disasters accumulate in complexity and scale, they escalate into catastrophic events, leading to widespread destruction and loss for humanity.

Disasters are perceived as a consequence of unbalanced development, manifesting as severe events that cause extensive damage to human societies, physical infrastructure, and the environment. The extent of these disasters often exceeds a community's ability to manage and recover (United Nations Department of Humanitarian Affairs, 1992). The causes of disasters can be classified into two main categories: natural disasters, such as floods, storms, landslides, droughts, earthquakes, and wildfires; and man-made disasters, including fires, transportation accidents, hazardous chemical incidents, and workplace-related hazards.

Disasters often impact densely populated areas, making preparedness a crucial factor in mitigating their effects. The ability to respond effectively to disasters is essential for disaster preparedness and risk reduction. Therefore, a thorough understanding of disasters is necessary for effective disaster readiness and response planning. This article aims to present an overview of disasters, analyze Thailand's disaster situation, and ultimately provide an assessment of disaster management from the perspective of Thai society. The findings will highlight Thailand's preparedness and response strategies, ensuring the safety and well-being of the population.

2. Objectives

- 1 To examine the body of knowledge related to disasters.
- 2 To analyze disasters from the perspective of Thai society.

3. Scope of the Study

This article focuses on studying disaster-related information to gain a deeper understanding of disaster phenomena. The study then extends to an analytical discussion that reflects disaster preparedness and response from the perspective of Thai society.

Definition of “Disaster”

The term “disaster” originates from the Latin words “dis-” and “Astro”, which collectively refer to a severe event caused by either natural forces or human actions. Disasters can occur suddenly or develop gradually over time. Regardless of their onset, disasters significantly impact social and economic structures and severely impair the ability of affected individuals to safeguard their lives, properties, resources, and environment. Consequently,

communities often find themselves unable to cope with the disaster on their own (Bhandari, Malakar, & Murphy, 2010; Coppola, 2007; Pine, 1946; United Nations International Strategy for Disaster Reduction, 2009).

The United Nations Office for Disaster Risk Reduction (UNISDR) defines “disaster” as “a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources”. (UNISDR, 2009)

According to this definition, a disaster is characterized by its profound impact on a community or society, rendering it incapable of restoring normalcy without external assistance. The term “disaster” in a global context refers to the severe interruption of societal or community functions due to either natural or human-induced hazards. Such disruptions lead to extensive consequences on human lives, property, society, the economy, and the environment, surpassing the affected community's ability to manage the crisis using its available resources (Department of Disaster Prevention and Mitigation & United Nations Development Programme Thailand, 2014, p. 29).

Additionally, disasters arise from either natural hazards or human-induced events, significantly disrupting the normal functioning of communities or societies. They cause extensive damage to property and result in the loss of human lives. The severity of disaster-related damages depends on several factors, including the type and intensity of the disaster, the physical and social vulnerability of the affected community, and the community's ability to perceive, understand, and effectively respond to the situation (Kamolvej, 2011, p. 77). Disasters are caused by both direct and

indirect hazards, leading to consequences such as human casualties, property loss, environmental destruction, social disruption, and threats to the normal functioning of essential services and production systems (Shi & Shi, 2019, p. 17).

From the various definitions of disasters, it can be concluded that a disaster is a severe disruption in the functioning of a community or society, resulting from either natural or human-induced hazards. These disruptions have widespread impacts on human life, property, social structures, the economy, and the environment, exceeding the affected community's ability to manage the crisis with available resources. The extent of damage varies depending on the type and intensity of the hazard, the community's physical and social vulnerabilities, and its ability to cope with the disaster.

The concept of disasters is generally associated with disturbances that disrupt the normal course of life. These disruptions are often severe, sudden, and unpredictable, escalating rapidly and causing significant harm to human populations. They result in loss of life, injuries, hardship, and long-term health effects. Disasters also impact social structures, causing damage or destruction to government institutions, infrastructure, communication systems, and essential services. Furthermore, affected communities experience urgent needs such as shelter, food, clothing, medical assistance, and social support.

Types of Disasters

Scholars have categorized disasters in various ways. Shaluf (2007, pp. 704-705) classifies disasters into three categories: natural disasters, human-made disasters, and hybrid disasters. Eshghi and Larson (2008, p.

71) identify five categories of disasters: biological disasters, geological disasters, meteorological disasters, human conflicts, and technological disasters. Gupta et al. (2016, p. 10) divide disasters into two primary types: natural disasters and human-made disasters. In this article, disasters are classified into two main categories: natural disasters and man-made disasters (Chueachanthuek, 2023, p. 5). The details are as follows:

1. Natural Disasters

Natural disasters refer to adverse events that pose risks to local communities. Governments at national, regional, and local levels, along with various agencies, organizations, and networks, work together to implement disaster preparedness and mitigation strategies. Natural disasters can generally be categorized into two broad types:

1.1 Climate-related disasters – These disasters result from changes in climatic conditions, including floods, droughts, storms, and extreme cold weather.

1.2 Geophysical and other natural disasters – These disasters result from changes in the Earth's surface or other environmental factors, including landslides, earthquakes, wildfires, and heatwaves.

2. Man-Made Disasters

Man-made disasters are non-natural events that may occur suddenly or develop over time. Sudden-onset human-induced disasters include fires, transportation and traffic accidents, chemical and hazardous material incidents, and workplace hazards. Additionally, disasters related to air, land, and maritime transport, as well as acts of sabotage, are considered human-made disasters.

Both natural and man-made disasters significantly disrupt the functioning of communities and societies, severely affecting social structures, causing loss of life, destruction of property, economic decline, and environmental degradation. The extent of damage depends on the type and severity of the disaster, the physical and social vulnerabilities of the affected communities, and their ability to manage and respond effectively. In many cases, disasters exceed the capacity of the affected communities to cope using their existing resources, requiring external assistance and intervention.

Unique Characteristics of Disasters

Disasters arise from either natural hazards or human-induced events. Understanding their characteristics is essential, as disasters significantly disrupt the normal functioning of communities and societies, causing property damage and loss of life. The extent of destruction depends on various factors, including the type and severity of the disaster, the physical and social vulnerability of affected communities, and their ability to perceive, comprehend, and effectively respond to the situation. Enhancing the efficiency and effectiveness of disaster management requires a thorough understanding of these characteristics, which facilitates better preparedness and response strategies. Several unique characteristics define disasters, including the following: Compound Hazard, Level of Community Vulnerability, Cross-Jurisdictional Impact, Uncertainty, and Chaos (Kamolvej, 2011, p. 78)

1. Compound Hazard

A disaster can trigger subsequent hazards, leading to a chain reaction of destructive events. For example, an earthquake may generate a

tsunami, which, in turn, can lead to disease outbreaks if not properly managed. Understanding this characteristic allows for more effective disaster response by addressing both the initial disaster and its cascading effects.

2. Level of Community Vulnerability

The severity of a disaster is influenced by the vulnerability of the affected community. Physical factors, such as geographical risks, and social factors, including the presence of vulnerable populations such as children, women, and the elderly, play a crucial role in determining the impact of a disaster. Disaster preparedness and response must incorporate structural and social measures to minimize risks.

3. Cross-Jurisdictional Impact

Disasters often extend beyond a single administrative boundary, affecting multiple regions and requiring coordinated responses. Effective disaster management requires collaboration among neighboring jurisdictions, both to contain the expanding impact of the disaster and to facilitate mutual aid and resource sharing.

4. Uncertainty

Uncertainty is a fundamental characteristic of disasters. Previous disasters may reoccur in different forms, with increased intensity and frequency, and under different conditions. For example, off-season storms, nighttime earthquakes, or unprecedentedly severe tsunamis illustrate the unpredictable nature of these events. Preparedness efforts must be continuously updated to account for evolving risks and changing environmental conditions.

5. Chaos

Disasters create highly complex and abnormal situations, often resulting in widespread confusion and operational difficulties. Each disaster incident involves multiple affected groups, extensive damage, and numerous responders, leading to challenges in coordination. The destruction of infrastructure—such as collapsed bridges, landslides, and flooded transportation routes—further complicates response efforts. Additionally, the involvement of multiple agencies, emergency resources, and humanitarian aid can contribute to disorder and logistical difficulties.

Understanding these disaster characteristics is essential for effective disaster management. Disasters frequently affect densely populated areas, necessitating comprehensive risk assessments that consider geographical conditions, infrastructure vulnerabilities, and potential hazards. A well-informed approach to disaster preparedness and response is critical for minimizing the impact and ensuring efficient recovery efforts.

Impacts of Disasters

Disasters have profound effects on both life and property, significantly disrupting economic activities. In the commercial sector, services and investments are forced to halt, causing businesses, industries, and the tourism sector to suffer financial losses or even shut down. Tourists lose confidence in affected areas, while the industrial and agricultural sectors face damaged or scarce raw materials and crops. Public utilities, such as water supply and electricity, may become inoperable, while transportation and communication networks may be severed, leading to cascading effects on supply chains. The scarcity of goods results in price surges, impacting not

only the directly affected areas but also surrounding regions (Department of Disaster Prevention and Mitigation & United Nations Development Programme Thailand, 2014, pp. 13–14).

The affected population can be categorized into three groups based on the type and level of damage sustained, as well as their residential location (Department of Disaster Prevention and Mitigation & United Nations Development Programme Thailand, 2014, p. 12):

1. Primary Affected People

Primary affected people refer to individuals residing in disaster-stricken areas who experience direct impacts. This group includes casualties, injured individuals, and those who become disabled due to the disaster. It also includes people in need of emergency shelter, food, and medical assistance, as well as those who suffer property damage or loss.

2. Secondary Affected People

Secondary affected people are those who may not be directly impacted by the disaster but live near affected areas or face disruptions in accessing public services. These disruptions may include water supply, sanitation systems, electricity, transportation, and communication services. Additionally, these individuals may face increased costs of goods and services as a result of the disaster.

3. Tertiary Affected People

Tertiary affected people are those residing outside the disaster-affected region who experience indirect consequences at a later stage. This includes individuals facing increased transportation costs when traveling to affected areas, shortages of essential goods or services, and disruptions in logistics and supply chains.

The widespread consequences of disasters extend beyond immediate loss of life and property, affecting all sectors—social, economic, and environmental. Moreover, disasters disrupt planned development efforts, causing interruptions in financial continuity. Budget allocations initially designated for long-term development must instead be diverted toward reconstruction, rehabilitation, and recovery. Therefore, it is crucial for all sectors to collaborate in disaster risk reduction, mitigation, and response planning to minimize potential impacts effectively (Department of Disaster Prevention and Mitigation & United Nations Development Programme Thailand, 2014, pp. 12–14).

Disaster Situation in Thailand

Like many other countries worldwide, Thailand faces significant disaster risks, particularly from natural hazards that have occurred frequently throughout history. Key disaster events in Thailand that have caused substantial loss of life and property include floods, droughts, landslides, earthquakes and tsunamis, storms, fires, forest fires and haze, transportation-related hazards, and infectious disease outbreaks. The occurrence of these disasters across all regions of the country has had severe consequences on lives, property, and the national economy (Department of Disaster Prevention and Mitigation, 2013).

According to a 2011 risk analysis conducted by Maplecroft, a global risk assessment firm, Thailand was ranked 37th among countries facing medium-term climate change risks. Furthermore, the 2013 Climate Change Vulnerability Index ranked Bangkok as the third most vulnerable city in the world to climate change impacts, categorizing it as an area with extreme risk.

This ranking was based on global climate trends and their influence on the frequency and intensity of disasters (Department of Disaster Prevention and Mitigation, 2013, p. 19).

The disaster situations outlined above highlight the widespread impact of various hazards across all regions of Thailand, affecting lives, property, and the national economy. Therefore, it is essential for individuals and communities across the country to prepare for potential disasters in their areas. Additionally, efforts should be made to reduce factors that increase vulnerability at the individual, community, and societal levels to mitigate disaster risks effectively.

Analysis of Disasters from the Perspective of Thai Society

Disasters, which tend to become increasingly severe and complex, have made disaster response more challenging and intricate. This section presents an analysis of disasters from the perspective of Thai society. Based on disaster situations, Thai society has responded in various ways, which the author categorizes into four aspects, as detailed below.

1. Laws

Several legal instruments and strategic plans have been established to support disaster management efforts. In particular, the key legislation and core plans include the Disaster Prevention and Mitigation Act B.E. 2550 (2007), various master plans on disaster types, and the National Disaster Prevention and Mitigation Plan. These frameworks contribute to a more unified approach to disaster management. Additionally, the

stipulations set forth in these laws provide operational guidelines that enhance the country's capacity to effectively respond to disasters.

2. Policy

Policies related to disaster prevention have not yet been designated as matters of national priority on par with economic or social policies. Furthermore, there is a lack of mechanisms that allow communities to participate in disaster management at the policy level. Community engagement is limited to receiving government assistance as disaster victims or acting as civil defense volunteers. When disasters occur, all sectors are susceptible to impacts and therefore inherently play a role in mitigating disaster risk. Consequently, disaster risk reduction should be treated as a key concern and integrated into development processes.

3. Management

Current disaster management practices are characterized by fragmented operations across different agencies, with numerous entities involved in the process. However, a lack of comprehensive command and coordination has resulted in a lack of unity and shared objectives among organizations. Operational procedures and guidelines remain ambiguous (Department of Disaster Prevention and Mitigation, 2015, p. 11). The focus remains predominantly on emergency response rather than on disaster risk management. Therefore, greater emphasis should be placed on risk reduction strategies to ensure a sustainable approach to disaster prevention and resolution (Department of Disaster Prevention and Mitigation, 2021, p. 15).

Moreover, the disaster management mechanisms lack coherence across national, provincial, district, and local levels. This is due to the multi-

tiered structure of disaster management in Thailand and the involvement of numerous agencies and sectors. Simultaneously, legal duty-bearers often lack comprehensive authority to issue commands, hindering coordination among participating agencies. The resulting operational landscape is fragmented, with each agency functioning independently. This leads to inefficiencies and reactive crisis management rather than strategic collaboration grounded in clearly defined goals, guidelines, and procedures. In addition, there is insufficient awareness and preparedness for disaster management, despite the existence of disaster response plans. These plans are rarely subjected to drills or simulations, which undermines preparedness and results in primarily ad hoc responses to crises (Ubalee, 2014, p. 52).

Therefore, it is necessary to promote integrated approaches aimed at reducing disaster risk and enhancing proactive disaster management. This involves prioritizing risk management strategies that address potential hazards before they occur, rather than focusing solely on emergency response once disasters have already taken place.

4. Administrative Resources

Resources are a critical component of disaster management and include the following:

4.1 Budgetary Resources encompass regular internal organizational budgets, emergency relief funds allocated to assist disaster victims, and central contingency funds. The latter refers specifically to funding intended for post-disaster recovery and reconstruction of damages caused by disasters, focusing on restoration efforts following the occurrence of a disaster (Department of Disaster Prevention and Mitigation, 2021, p. 135).

4.2 Human Resources. There is a shortage of personnel with specialized expertise (Saengkla, Phonmasri, and Wariwan, 2021, p. 36), as well as an overall insufficiency in the number of staff responsible for disaster prevention and mitigation (Ubalee, 2014, p. 52). This shortage impedes timely and comprehensive assistance to disaster victims and delays the rehabilitation of affected areas. Furthermore, the available workforce often lacks the technical knowledge and specialized skills required. Therefore, it is essential to enhance the capacity of disaster prevention and mitigation personnel through training and practical exercises to build knowledge and preparedness for effective disaster management.

4.3 Equipment and Material Resources. There is a notable deficiency in equipment and tools required for disaster prevention and mitigation operations (Saengkla, Phonmasri, and Wariwan, 2021, p. 36), including the absence of essential instruments and materials (Ubalee, 2014, p. 52). Moreover, the high cost of essential equipment for disaster response results in limited availability of tools, machinery, vehicles, and necessary facilities. As disaster services are predominantly focused on alleviating impacts and restoring damaged areas, the lack of ready-to-use and high-quality equipment and vehicles undermines public confidence in disaster prevention and mitigation efforts. (Putta & Poboon, 2018, p. 31). Therefore, it is imperative to ensure that equipment and supplies are adequately prepared and of high quality in order to foster public trust in disaster prevention and mitigation operations.

Conclusion

Disaster knowledge encompasses the understanding that disasters are events that severely disrupt the functioning of a community or society, resulting from natural hazards or human-induced causes. Disasters are categorized into two main types: natural disasters and man-made disasters. Understanding the characteristics of disasters is critical for enhancing response effectiveness. These characteristics include that a primary disaster may trigger secondary or cascading hazards; the severity of a disaster may be intensified when the community's vulnerability is high; disasters can spread across wide geographic areas, often crossing administrative boundaries. Disasters are inherently unpredictable; disasters typically generate widespread disorder and chaos; the impacts of disasters can be classified based on the type and extent of damage and the affected residential areas. These impacts are divided into three groups: primary victims, secondary victims, and tertiary victims. Thailand, like many countries around the world, faces a variety of disaster risks, particularly from natural hazards. These include floods, droughts, landslides, earthquakes and tsunamis, storms, fires, forest fires and haze, transportation-related hazards, and epidemics.

An analysis of disasters from the perspective of Thai society reveals four key dimensions: **Legal Dimension:** Multiple laws and plans exist to support disaster management, providing clear guidelines and operational frameworks for effective disaster response. **Policy Dimension:** Policies related to disaster prevention have not yet been elevated to the same level of national importance as economic or social policies. As such, disaster risk

reduction should be prioritized and integrated into the national development process. **Management Dimension:** Disaster management in Thailand is characterized by a fragmented structure, with various agencies operating independently. There is a predominant focus on emergency response rather than risk reduction. Although the management framework spans multiple administrative levels, there is a general lack of awareness and preparedness. Therefore, integrated approaches are necessary, emphasizing proactive disaster risk management and placing greater importance on pre-disaster risk mitigation. **Administrative Resource Dimension:** Budgets for disaster management are sourced from multiple channels. There is a need to enhance the capacity of disaster prevention and mitigation personnel and ensure the availability and quality of necessary equipment and materials.

References

- Bhandari, D., Malakar, Y., & Murphy, B. (2010). *Understanding disaster management in practice: With reference to Nepal*. Practical Action Nepal Office. <https://lib.icimod.org/record/14702>.
- Chueachanthuek, V. (2023). *Strategies for local disaster management*. O.S. Printing House.
- Coppola, D. P. (2007). *Introduction to international disaster management*. Butterworth-Heinemann.
- Department of Disaster Prevention and Mitigation. (2013). *Disaster risk reduction*. Cooperative Federation of Thailand.
- Department of Disaster Prevention and Mitigation. (2015). *National disaster prevention and mitigation plan*. <http://ndwc.disaster.go.th>.
-

- Department of Disaster Prevention and Mitigation. (2021). *National disaster prevention and mitigation plan 2021-2027*. Ministry of Interior.
- Department of Disaster Prevention and Mitigation, & United Nations Development Programme Thailand. (2014). *Glossary of terms on disaster risk management*. United Nations Development Programme Thailand. <https://www.undp.org/thailand/publications/disaster-risk-management-glossary-terms>
- Disaster Prevention and Mitigation Act, B.E. 2550 (2007). (2007, September 7). *Royal Gazette*, 124(52 G), 1-23.
- Eshghi, K., & Larson, R. C. (2008). Disasters: Lessons from the past 105 years. *Disaster Prevention and Management: An International Journal*, 17(1), 62-82.
<https://www.researchgate.net/publication/200043894>.
- Gupta, S., Starr, M. K., Farahani, R. Z., & Matinrad, N. (2016). Disaster management from a POM perspective: Mapping a new domain. *Production and Operations Management*, 25(10), 1611-1637.
<https://eprints.kingston.ac.uk/id/eprint/34981>
- Kamolvej, T. (2011). *Local disaster management handbook*. King Prajadhipok's Institute. <http://www.oic.go.th/FILEWEB/CABINFOCENTER17/DRAWER086/GENERAL/DATA0000/00000034.PDF>.
- Pine, J. C. (1946). *Natural hazards analysis: Reducing the impact of disasters*. Auerbach.
- Putta, J., & Poboorn, C. (2018). Public disaster prevention and mitigation of local administrative organizations in Thailand. *Kasem Bundit Journal*, 19(1), 31-44. <https://so04.tci-thaijo.org/index.php/jkbu/article/view/127775>

- Saengkla, S., Phonmasi, C., & Wariwan, W. (2021). The role of local government organizations in disaster management: Case study of Bueng Kluea Subdistrict Administrative Organization, Selaphum District, Roi-Et Province. *Journal of Social Sciences and Law and Political Science*, 5(2), 35-52. https://so02.tci-thaijo.org/index.php/Lawpol_Journal/article/view/252762
- Shaluf, I. M. (2007). Disaster types. *Disaster Prevention and Management: An International Journal*, 16(5), 704–717. <https://doi.org/10.1108/09653560710837019>
- Shi, P., & Shi, P. (2019). Hazards, disasters, and risks. *Disaster Risk Science*, 1, 1-48. https://doi.org/10.1007/978-981-13-6689-5_1
- Ubalee, C. (2014). Disaster management: The role of local government organizations in Chanthaburi Province. *Ombudsman Journal*, 7(2), 51-69. <http://ombstudies.ombudsman.go.th/download/Journals/e-book%207-2-57.pdf>
- United Nations Department of Humanitarian Affairs. (1992). *An overview of disaster management*. United Nations.
- United Nations International Strategy for Disaster Reduction.(2009). *Terminology on disaster risk reduction*. <https://www.undrr.org/publication/2009-unisdr-terminology-disaster-risk-reduction>



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