LEGAL ISSUES ON DISASTER ALERT SYSTEM IN THAILAND

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Abstract - This study aims to explore legal issues on Thai disaster alert system which are intricate, especially considering recent developments in emergency communication technologies. The Thai government is establishing a comprehensive alarm system, incorporating a Cell Broadcast Service (CBS) and SMS notifications, to enhance public safety during natural catastrophes. Nonetheless, issues remain concerning the legal framework for disaster management, specifically the Disaster Prevention and Mitigation Act B.E. 2550 (2007), which delineates roles and responsibilities but lacks clarity in inter-agency cooperation and accountability. The introduction of these new alert systems prompts apprehensions over data privacy, the precision of information distribution, and the legal ramifications of erroneous alarms. The efficacy of these systems depends on cooperation among several governmental agencies and the private sector, which have historically encountered problems of overlapping roles and inadequate community engagement. As Thailand improves its disaster alert systems, it is essential to tackle these legal difficulties to guarantee prompt and efficient communication that can preserve lives and mitigate property damage during calamities.

Keywords - Legal Issues, Disaster Alert System, Legal Framework, Thailand

I. INTRODUCTION

Thailand's vulnerability to natural disasters, ranging from floods and droughts to earthquakes and tsunamis, necessitates a robust and effective disaster alert system. While Thailand has made strides in developing such a system, several legal issues impede its optimal functioning. This introduction explores some of these key challenges, illustrated with examples, and supported by references. These issues include the need for a comprehensive and updated legal framework, data privacy and accuracy concerns, and ambiguities in roles and responsibilities leading to coordination challenges. For example, while the Disaster Prevention and Mitigation Act B.E. 2550 (2007) provides a foundation for disaster management, it may not adequately address the specific legal complexities of modern alert systems, such as data sharing protocols and liability for inaccurate information. This can lead to confusion and hinder effective responses, as seen during past flood events where unclear communication channels hampered evacuation efforts. Furthermore, the rapid evolution of technology used in alert systems, like mobile applications and social media, necessitates legal frameworks that keep pace with these advancements. Another critical legal issue revolves around data privacy and accuracy. Collecting and disseminating personal data for alert systems raises concerns about potential misuse and the right to privacy. For instance, the use of location data to target alerts must be balanced against individual privacy rights.

Similarly, inaccurate or outdated information can lead to panic and unnecessary evacuations, potentially resulting in legal repercussions. The lack of clear legal guidelines on data handling and verification processes can create uncertainty and undermine public trust in the system.[1] Finally, the effectiveness of the disaster alert system hinges on clear roles and responsibilities among various government agencies, non-governmental organizations, and local communities. Ambiguities in these roles can lead to coordination failures, especially during large-scale disasters. For example, during the 2004 tsunami, confusion over who was responsible for issuing warnings and coordinating relief efforts contributed to delays and inefficiencies. A well-defined legal framework that clarifies the responsibilities of each stakeholder is crucial for ensuring a coordinated and effective response.[2]
Therefore, this article aimed to: Fist, analyze the existing legal framework governing disaster alert systems in Thailand, identifying gaps and inconsistencies that hinder effective disaster preparedness and response. Second: to propose recommendations for legal reforms that strengthen the disaster alert system in Thailand, addressing issues such as data privacy, information accuracy, clarity of roles and responsibilities, and technological advancements, while ensuring alignment with international best practices and human rights standards.

II. REVIEW LITERATURE

Thailand's legal framework for disaster alert systems is a complex interplay of various laws and regulations, often intertwined with broader disaster management legislation. Here's an exploration of the key components:[3][4][5][6][7[8]

2.1. Disaster Prevention and Mitigation Act B.E. 2550 (2007)

- This Act serves as the cornerstone of Thailand's disaster management framework. It outlines the overall structure for disaster prevention,

mitigation, response, and recovery, including the establishment of the Department of Disaster Prevention and Mitigation (DDPM) as the primary agency responsible for coordinating these efforts.

- While the Act provides a general framework, it may not explicitly address the specific legal nuances of modern disaster alert systems, such as data privacy, information accuracy, and liability issues related to alert dissemination.

2.2. Civil Defense Act B.E. 2522 (1979)

- This older Act focuses primarily on civil defense measures, including preparedness for wartime emergencies and large-scale disasters. It establishes the National Civil Defense Committee as the main policy-making body for disaster management.
- Although it may not be the primary legislation for disaster alert systems, it still holds relevance, particularly in defining roles and responsibilities during disaster situations.

2.3. National Disaster Warning Center Establishment Order

- This order led to the creation of the National Disaster Warning Center (NDWC), which plays a crucial role in monitoring potential hazards, issuing warnings, and disseminating information to the public.
- The order outlines the NDWC's functions and responsibilities, including its role in coordinating with other agencies and utilizing various communication channels to deliver alerts.

2.4. Other Relevant Legislation

- Constitution of the Kingdom of Thailand: The Constitution provides fundamental rights and freedoms, including the right to information, which can be relevant to the dissemination of disaster alerts.
- Personal Data Protection Act B.E. 2562 (2019): This Act governs the collection, use, and disclosure of personal data, which is crucial in the context of targeted alerts and data privacy concerns.
- Electronic Transactions Act B.E. 2544 (2001): This Act provides a legal framework for electronic communications, which is relevant to the use of mobile applications, social media, and other digital platforms for disseminating alerts.

2.5 International Frameworks

- Thailand is a signatory to various international agreements and frameworks related to disaster risk reduction, such as the Sendai Framework for Disaster Risk Reduction 2015-2030. These frameworks provide guidance and principles that influence Thailand's domestic legal framework.

III. METHODOLOGY

The author obtained information from national and international publications, journals, books, and theses pertaining to Alert System. The primary focus of the study is the primary Thai and foreign laws pertaining to Alert System.[9]

IV. RESULTS AND DISCUSSION

Several gaps and inconsistencies within Thai law hinder the effectiveness of disaster preparedness and response, particularly concerning disaster alert systems. These issues create ambiguity, impede coordination, and ultimately put communities at greater risk.

4.1 Lack of Specific Legislation for Disaster Alert Systems:

- Gap: While the Disaster Prevention and Mitigation Act B.E. 2550 (2007) provides a broad framework for disaster management, it lacks specific provisions for disaster alert systems. This includes details about data collection, processing, and dissemination, as well as liability for inaccurate information or system failures. The absence of specific legislation makes it difficult to address emerging challenges related to technology and data privacy in alert systems.
- Impact: This lack of specificity can lead to confusion and legal challenges, especially when dealing with new technologies and data-driven alert systems. It also creates ambiguity in responsibility for the accuracy and timeliness of alerts.

4.2 Ambiguity in Roles and Responsibilities:

- Gap: While various agencies have roles in disaster management, the lines of authority and responsibility, especially concerning alert dissemination and coordination, are often unclear. This can lead to duplication of efforts, communication breakdowns, and delays in issuing timely warnings. The Civil Defence Act B.E. 2522 (1979) and the NDWC Establishment Order offer guidance, but they may not be fully aligned or address all scenarios.
- Impact: This ambiguity hinders effective coordination among agencies, especially during large-scale disasters where a unified response is crucial. It can lead to confusion about who is responsible for taking specific actions, such as issuing evacuation orders or providing emergency assistance.

4.3. Data Privacy and Security Concerns:

- Gap: The Personal Data Protection Act B.E. 2562 (2019) provides a general framework for data protection, but it may not adequately

address the specific challenges related to collecting and using personal data for disaster alerts. For instance, the Act may not clearly define the permissible use of location data for targeted alerts or address the retention and deletion of sensitive information collected during emergencies.

- Impact: This lack of clarity can lead to legal challenges and erode public trust in the system if people fear their personal data is being misused. It can also hinder the development of effective data-driven alert systems.

4.4. Inconsistent Application and Enforcement:

- Gap: Even when laws and regulations exist, their implementation and enforcement can be inconsistent across different regions and agencies. This can be due to a lack of resources, training, or awareness.
- Impact: Inconsistent application undermines the effectiveness of the legal framework and creates disparities in disaster preparedness and response capabilities.

4.5. Lack of Public Awareness and Education:

- Gap: Laws and regulations are only effective if the public is aware of them. There is a need for greater public education and awareness campaigns to inform people about the disaster alert system, how to access alerts, and what actions to take in response to warnings.
- Impact: A lack of public awareness can lead to confusion and panic during disasters, even if timely warnings are issued..

Addressing these gaps and inconsistencies is crucial for strengthening Thailand's disaster alert system and improving its ability to protect lives and property. A comprehensive review and update of the legal framework, focusing on the specific needs of modern alert systems, is essential.

V. CONCLUSIONS

Based on the identified gaps and inconsistencies, here are some recommendations for legal reforms to strengthen Thailand's disaster alert system:

5.1 Enact Specific Legislation for Disaster Alert Systems:

- Recommendation: Draft and enact a dedicated law or amend the Disaster Prevention and Mitigation Act B.E. 2550 (2007) to include a comprehensive section specifically addressing disaster alert systems. This legislation should cover:
- Data Management: Clear guidelines on the collection, processing, storage, and dissemination of data for alert systems, including types of data collected (e.g., location, contact information), permissible uses, data retention periods, and security protocols.
- Alert Dissemination: Specify the methods for disseminating alerts (e.g., SMS, mobile apps, social media, broadcast media, sirens) and the responsibilities of different agencies in utilizing these channels. Address the use of both traditional and modern communication technologies.
- Information Accuracy and Verification: Establish procedures for verifying the accuracy of information before dissemination and assigning responsibility for the accuracy and timeliness of alerts. Include provisions for correcting inaccurate information promptly.
- Liability: Define clear liability frameworks for inaccurate information or system failures, balancing the need for accountability with the need to encourage the dissemination of timely warnings.
- Public Awareness and Education: Mandate public awareness and education programs on the disaster alert system, including how to access alerts, understand warning levels, and take appropriate actions.
- Technological Advancement: Include provisions that allow the legal framework to adapt to advancements in technology, such as the use of artificial intelligence and big data analytics in alert systems.

5.2 Clarify Roles and Responsibilities:

- Recommendation: Clearly define the roles and responsibilities of all relevant agencies involved in the disaster alert system, including the DDPM, NDWC, local authorities, and other stakeholders.

This should include:

- Chain of Command: Establish a clear chain of command for issuing alerts and coordinating response efforts.
- Interagency Coordination: Develop protocols for effective communication and coordination among different agencies, including joint training exercises and information sharing mechanisms.
- Community Involvement: Define the role of local communities and community-based organizations in the alert system, including their involvement in disseminating alerts and assisting with evacuation efforts.

5.3 Strengthen Data Privacy and Security:

- Recommendation: Enhance the Personal Data Protection Act B.E. 2562 (2019) or create specific provisions within the disaster alert system legislation to address the unique data privacy challenges related to emergency alerts. This should include:

- Purpose Limitation: Clearly define the permissible purposes for collecting and using personal data for alert systems.
- Consent: Establish clear rules for obtaining consent for the collection and use of personal data, especially for location data and other sensitive information.
- Data Security: Implement robust data security measures to protect personal data from unauthorized access, use, or disclosure.
- Data Retention: Define clear data retention policies and procedures for deleting personal data when it is no longer needed.

5.4 Improve Implementation and Enforcement:

- Recommendation: Strengthen the capacity of relevant agencies to implement and enforce the legal framework for disaster alert systems. This should include:
- Resource Allocation: Allocate sufficient resources for training, equipment, and technology upgrades.
- Monitoring and Evaluation: Establish mechanisms for monitoring the effectiveness of the alert system and evaluating compliance with the legal framework.
- Capacity Building: Provide training for government officials and local communities on the legal framework and best practices for disaster preparedness and response.

5.5 Promote Public Awareness and Education:

- Recommendation: Mandate and fund public awareness campaigns to educate people about the disaster alert system, including:
- Alert Channels: Information on how to access alerts through various channels (e.g., mobile apps, social media, radio, television).
- Warning Levels: Clear explanations of different warning levels and their corresponding meanings.
- Emergency Preparedness: Guidance on what actions to take in response to different types of warnings, including evacuation procedures and emergency preparedness kits.
- Community Drills: Regular community drills and exercises to practice responding to disaster alerts.

5.6 Align with International Standards:

- Recommendation: Ensure that the Thai legal framework for disaster alert systems is aligned with international best practices and standards, such as the Sendai Framework for Disaster Risk Reduction. This will help ensure the system is effective and consistent with global efforts to reduce disaster risk.

By implementing these recommendations, Thailand can strengthen its disaster alert system, improve its preparedness for future disasters, and ultimately save lives and protect property. It's crucial that these legal reforms are not only well-drafted but also effectively implemented and enforced to achieve their intended impact.

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