

Regional and Local Policy Supporting Local Communities in Flood Disaster Risk Reduction in Thailand

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Abstract

This study aims to understand regional and local policies which are supporting local communities in disaster risk reduction in Thailand. The objectives of this study are (1) to clarify regional and local policies which support community disaster risk reduction in Thailand and (2) to find gaps in policy implementation on Community-Based Disaster Risk Management (CBDRM) implementation in Thailand. Global and regional policies and frameworks were clarified such as the Sendai framework for Disaster Risk Reduction, Sustainable Development Goals (SDGs), and the Paris Agreement. National policies in Thailand were clarified, such as the National Disaster Risk Management Plan (NDRMP). Local policies in Thailand were revealed such as provincial, municipal, and community disaster prevention and mitigation plans. In addition, the Community Safety Plan for Disaster Management is introducing as a bottom-up approach along with CBDRM in Thailand. This article analyzes the above-mentioned plans and policies to find the gaps in policy implementation of CBDRM in Thailand. This research argues that the gaps in policy implementation in supporting CBDRM in Thailand are that 1) the government hierarchical command (top-down approach) has limitations despite the promotion of the CBDRM principle, 2) local community participation in creating plans for managing disasters remains unclear, and 3) a lack of institutional channels for local communities to enhance their capacity for disaster risk reduction. Thus, bottom-up CBDRM and enhancing CDRMO should be the main focus.

Key Words: Policy, Regional, Local, Communities Disaster Risk Reduction, Thailand

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1. Introduction

Thailand has experienced various disasters (flood, drought, landslide, etc.) several times in the past but their occurrence has become more frequent in recent times. With a long history of flood disasters, the Thai government is seeking better solutions to mitigate the consequences of such events. Among the challenges at the community level are the establishment and systematization of local organizations for disaster management, the creation of plans for disaster management, and the formation of local committees responsible for planning and organizing to manage disasters, etc. (Tanwattana & Murayama, 2014). However, the record of the few spontaneous and organic movements that have sporadically arisen in responding and helping communities to manage the response against flood disasters has at best remained ambiguous (Tanwattana, 2018).

One community-based approach for addressing disaster risk reduction is Community-Based Disaster Risk Management (CBDRM). There are many CBDRM studies that indicate the promotion of CBDRM in several nations. Also, there are several recommendations for applying the CBDRM approach in conducting disaster risk management. Communities are the key to disaster risk reduction because they are directly confronted and affected by disasters. Communities are, therefore, promoted by global agreement. UNISDR (2018) states that it is highly necessary to promote coherence in the local-scale implementation of the post-2015 global agreements.

2. Significance of the Problem

A previous study revealed the limitations of the government to overcome obstacles in effective disaster policy making and planning, especially 1) the fact that plans at the national level are vague and unclear in their application at the local level, and 2) there is a lack of cooperation between government, civil society, and the private sector (Tanwattana & Murayama, 2014). This obviously reveals the weaknesses and limitations in the organization of disaster management and emergency responses by the community and government (Jukrkorn, Sachdev & Panya, 2014).

Therefore, this study aims to understand regional and local policies which are

Regional and Local Policy Supporting Local Communities in Flood Disaster Risk Reduction in Thailand supporting local community disaster risk reduction in the case of Thailand. This research is an empirical study based on secondary data and evidence. The objectives of this study are (1) to clarify regional and local policies which support community disaster risk reduction in Thailand and (2) to find gaps in the policy implementation of CBDRM in Thailand.

3. Community-Based Approach to Disaster Risk Reduction

3.1 Community-Based Disaster Risk Management (CBDRM)

The rationale for community involvement or community-based activities is now well rehearsed. Since community-based activities (and community-based organizations) are deeply rooted in the society and culture of an area, they enable people to express their real needs and priorities allowing problems to be defined more accurately and measures to be designed and implemented more responsibly (Shaw, 2012; Jahangiri, Izadkhah & Tabibi, 2011; Vallance & Carlton, 2015). CBDRM is a process of disaster risk management in which at risk communities are actively engaged in identification, analysis, finding solutions, monitoring, and the evaluation of disaster risks in order to reduce their vulnerabilities and enhance their capacities. This means that the people are at the heart of decision making and implementation of disaster risk management activities. The CBDRM approach is people and development oriented. It views disaster events as a question of people's vulnerability, and thus seeks to empower people to address the root causes of vulnerabilities by transforming social, economic, and political structures that generate inequality and underdevelopment. The CBDRM covers prevention and mitigation, preparedness, emergency response, and recovery (Kafle & Murshed, 2006). The outcome indicators of CBDRM are (1) the establishment of Community-Based Organizations (CBO) or Community Disaster Risk Management Organizations (CDRMO), (2) community disaster risk reduction funds, (3) community hazard, vulnerability, capacity map (HVCM), (4) community disaster risk management plans, (5) CBO or CDRMO training systems, (6) community drills systems, (7) community learning systems, and (8) community early warning systems (Davies & Murshed, 2006).

CBDRM is essentially a bottom-up process. It is important to recognize that the planning process for CBDRM is not just a mechanical set of actions. It is based on a shared set of values and the commitment of the community to work together

that will be necessary across all of the processes from organizing to implementation. The focus of the exercise should be on planning as a tool for risk reduction, preparedness, and actual communal response, rather than the mere production of a document as the output. The participatory approach here refers to community participation in disaster risk reduction through the formulation of plans, the adoption of specific policies, the promotion of networking within and outside the community, the strategic management of volunteer resources, the attribution of roles and responsibilities to different groups, the delegation and provision of the necessary authority and resources (Davies & Murshed, 2006), and participation in implementation.

3.2 Community Disaster Risk Management Organization (CDRMO)

The creation of the Community Disaster Risk Management Organization (CDRMO) or Community-Based Organization (CBO) is primarily to promote CBDRM. The formation of this organization requires the following actions and processes. It is important to ensure the representation of all vulnerable groups in the CBO. To ensure effectiveness in their work, CDRMO or CBO management must satisfy the following basic requirements: (1) criteria and procedures for membership in the CBO are established; (2) the functions of the CBO are defined; (3) the CBO is registered with the government to become eligible to receive funding; (4) regular meetings are held to discuss disaster risks and vulnerabilities, and to identify actions for disaster risk management; (5) training opportunities for group members are organized in varied aspects of CBDRM organization; (6) gender and social relations are promoted amongst target groups based upon equality within the CBO and its sub-committees, and (7) timely assistance requests are transmitted from target groups to local authorities and other agencies for disaster preparedness and risk reduction (Davies & Murshed, 2006).

4. CBDRM in Different Policies and Frameworks

This study clarifies the policies and frameworks which are related to disaster management in Thailand in different levels, including global frameworks, regional policies, national plans, provincial plans, municipal plans, and community plans as shown in Table 1.

Table 1: Related disaster policy and framework in Thailand

Level	Framework or Act or Policy or Plan		
Global	Sendai Framework	Sustainable Development Goals	Paris Agreement
Regional	Asian Disaster Preparedness Center (ADPC)		South Asian Association for Regional Cooperation (SAARC) Agreement on Rapid Response to Natural Disasters
National	National Disaster Risk Management Plan (NDRMP)		
Provincial	Provincial Disaster Prevention and Mitigation (PDPM) Plan of Nan Province		
Municipal	Municipal Disaster Prevention and Mitigation (MDPM) Plan of Nan Town Municipality		
Community	Community Disaster Prevention and Mitigation (CDPM) Plan of Phumin Talee Community, Nan Town Municipality		Community Safety Plan: Flood Disaster Management

Source: Compiled by author

4.1 CBDRM in Global Policies and Frameworks

In March 18, 2015, the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015 -2030 was endorsed at the 3rd UN World Conference in Sendai, Japan. It was the first of three UN landmark agreements agreed in 2015 prior to the Sustainable Development Goals (SDGs) being agreed in September 2015, and the Paris Agreement under the UNFCCC being adopted in December 2015. Strengthening resilience and minimizing vulnerability are the common goals amongst the three global frameworks (Djalante, 2019). This means that the implementation of both Climate Change Adaptation (CCA) under the Paris Agreement and DRR under the SFDRR can lead to sustainable development.

4.1.1 The Sendai Framework for Disaster Risk Reduction (SFDRR) 2015 -2030

The SFDRR has prioritized the four main actions for 1) understanding disaster risks, 2) strengthening disaster risk governance to deal with disaster risks, 3) investing in the reduction of disaster risks for resilience, and 4) enhancing disaster preparedness for responding to disasters in an effective manner and to “Build Back Better” in recovery, rehabilitation, and reconstruction (United Nations, 2015a). Among the four prioritized actions, the SFDRR gives significance to strengthening governance at the global and regional levels. It encourages stakeholder commitment as a fundamental for disaster risk-informed sustainable

development plans, and strongly promotes the inclusion of community-based viewpoints in the planning and delivery of disaster risk reduction (DRR) programs. Hence, community-based approaches, which have been applied for minimizing and dealing with disaster risk reduction for a long time, have remained of significant importance for addressing disaster risks (Sarabia et al., 2020). One of the expected outcomes is to “substantially increase the number of countries with national and local disaster risk reduction strategies by 2020”. This could be done through the Community Based Disaster Risk Management (CBDRM) and Community Disaster Risk Management Organization (CDRMO) approaches.

4.1.2 Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) outline 17 goals to accomplish sustainable development by the United Nations (2015b). Under the SDGs, indicators associated with disaster risk reduction (DRR) (based on SFDRR 2015-2030) and climate change adaptation (CCA) (based on the Paris Agreement) are determined in SDG 1 (No poverty), SDG 11 (Sustainable cities and communities) and SDG 13 (Climate action). Targets and indicators of those goals are related to disaster management, especially in emphasizing the implementation of national and local strategies in line with SFDRR as declared in Table 2 below.

Table 2: SDGs related to disaster risk reduction

Goals	Targets	Indicators
SDG 1 - No poverty End poverty in all its forms everywhere	Target 1.5: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	Indicator 1.5.1: Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
		Indicator 1.5.2: Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)
		Indicator 1.5.3: Number of countries that <i>adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030</i>
		Indicator 1.5.4: Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies

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Goals	Targets	Indicators
<p>SDG 11 - Sustainable cities and communities</p> <p>Make cities and human settlements inclusive, safe, resilient and sustainable</p>	<p>Target 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations</p>	<p>Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population</p> <p>Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters</p>
	<p>Target 11.b: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, <i>in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels</i></p>	<p>Indicator 11.b.1: Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030</p> <p>Indicator 11.b.2: Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies</p>
<p>SDG 13 - Climate action</p> <p>Take urgent action to combat climate change and its impacts</p>	<p>Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	<p>Indicator 13.1.1: Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population</p>
		<p>Indicator 13.1.2: Number of countries that <i>adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030</i></p>
		<p>Indicator 13.1.3: Proportion of local governments that <i>adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies</i></p>

Source: United Nations (2015b)

4.1.3 Paris Agreement

The Paris Agreement determined strategies to cope with the effects, vulnerability and risks from climate change through mitigation, adaptation, financial support, and capacity building strategic processes (Djalante, 2019). Article 7 (Adaptation) of the Paris Agreement states that it is indicated that each nation must carry on forming national adaptation policies and plans, enhancing practical actions to support the global adaptation response and also reporting adaptation implementation to the UNFCCC secretary (United Nations, 2015c). Article 8 (Loss and damage) of the Paris Agreement gives priority to mitigating and dealing with the loss and damage in relation to negative effects from climate change, extreme weather situations, and slow onset events including the key role of sustainable development in reducing loss and damage risks, enhancing and promoting the Warsaw International Mechanism for Loss and Damage related to impacts from climate change and also enhancing understanding and implementation to reduce loss and damage from climate change effects such as early warning systems, emergency preparedness, risk evaluation and management, climate risk insurance, non-economic losses, and resilient ecological systems, livelihoods and communities (United Nations, 2015c). In the work of Devès et al. (2017) it was pointed out that the Paris Agreement also endorsed a bottom-up approach that could promote progress in implementation toward more effective adaptation strategies, which conform to the actions for reducing disaster risks.

From all of the above global policies and frameworks, this reflects the fact that the community still plays a crucial role in reducing and managing disaster risks, so community roles should be clearly assigned, especially among community representatives (Wang et al., 2019; Sarabia et al., 2020). Thus, the implementation of disaster management between the national and local community levels should be linked through a strong mechanism foundation within the national institutional framework. To achieve success, it is necessary to establish and strengthen the national and local governmental coordination forums consisting of relevant stakeholders, national and local platforms for disaster risk reduction, and a designated national focal point for operating the SFDRR 2015–2030 (United Nations, 2015a).

4.2 CBDRM in Regional Policy

The CBDRM approach is mentioned in several policies and plans. In some nations

Regional and Local Policy Supporting Local Communities in Flood Disaster Risk Reduction in Thailand all over Asia (Sim, Dominelli & LAU, (2017); GNDR (n.d.); SAARC, 2018), CBDRM policies/strategies/plans explain vertical connections between CBDRM with sub-national DRM arrangements and structures, pointing out CBDRM institutionalization for synergy and coherent DRM across all levels.

4.2.1 Asian Disaster Preparedness Center (ADPC)

The Asian Disaster Preparedness Center (ADPC) is an autonomous international organization that works to build the resilience of people and institutions to disasters and climate change impacts in Asia and the Pacific. Established in 1986, it provides comprehensive technical services to countries in the region across the social and physical sciences to support sustainable solutions for risk reduction and climate resilience. The ADPC supports countries and communities in Asia and the Pacific in building their DRR systems, institutional mechanisms, and capacities to become resilient to numerous hazards, such as floods, landslides, earthquakes, cyclones, droughts, etc. The six strategic themes are risk governance, urban resilience, climate resilience, health risk management, preparedness for response, and resilient recovery, while the three cross-cutting themes are gender and diversity, poverty and livelihoods, and regional and transboundary cooperation. The ADPC has launched many training courses, handbooks, and projects on CBDRM in Asia. In Thailand, the ADPC has an important role in CBDRM implementation collaborating with the Department of Disaster Prevention and Mitigation (DDPM).

4.2.2 South Asian Association for Regional Cooperation (SAARC) Agreement on Rapid Response to Natural Disasters

The South Asian Association for Regional Cooperation (SAARC) Agreement on Rapid Response to Natural Disasters is an agreement for managing disasters at the regional level that supports existing mechanisms in rapidly response. The Natural Disaster Rapid Response Mechanism (NDRRM) forces SAARC member states to implement legislative and administrative measures to comply with agreement provisions. These also consist of measures for requesting and obtaining assistance, conducting needs evaluations, and mobilizing tools, human resources, materials, and other facilities, as well as conducting standby arrangements on a regional scale, preparing emergency stockpiles, and ensuring quality control of relief items (UNOCHA, n.d.). There is the creation of the SAARC Comprehensive Framework on Disaster Management with the aim of providing a platform for South Asian nations to drive their operations based on the framework in the

context of regional cooperation in line with the Hyogo Framework of Action (HFA) 2005-2015 to support the implementation of building the resilience of nations and communities to disasters. CBDRM is placed in the national frameworks on disaster management of all 8 nations in the South Asian region, so all countries in the region have committed to empower communities, strengthen capacities, participate in managing disasters and their risks (evaluation, prevention, mitigation, preparedness, emergency response, and recovery), and integrate community processes and structures with local administration institutes in order to translate the commitments into practical actions (SAARC, 2008).

As mentioned above, it shows the disaster management activities at the regional and national levels whereby member states exchanged and shared their actions while some contexts can be adapted for utilization. So, a wide range of stakeholders related to CBDRM in line with the national DRM/CBDRM frameworks and programs can be affected by interventions through the roles of national government agencies. However, although Asia, including South Asia, has strong national policies on CBDRM, in practice the local level of operation about governance risk, enabling environment, improving incentives, and understanding of the real policies and mandates are still challenging issues and it is still necessary to promote CBDRM through technical and financial assistance as well as capacity building for ensuring sustainability (GNDR, n.d.).

This has reflected the fact that that despite strong national policies on CBDRM in Asian nations, there are remaining challenges, in particular, at the local implementation level where institutional capacity, such as an understanding of real policies and mandates, risk governance, enabling environmental factors, and incentive development should be considered and enhanced so that CBDRM at the local level can be supported through technical and financial support, while capacities are continuously strengthened to ensure sustainability (GNDR, n.d.).

4.3 CBDRM in National Policy in Thailand

4.3.1 The National Disaster Risk Management Plan (NDRMP)

The Department of Disaster Prevention and Mitigation (DDPM) under the Ministry of Interior in Thailand was established in 2002. The DDPM is the main policy-making body for disaster management which was created through the Bureaucratic Reform Act of 2002 under the Ministry of Interior, serving as the

National Disaster Prevention and Mitigation Committee (NDPMC)'s Secretariat. The DDPM is also in charge of the creation of the National Disaster Risk Management Plan (NDRMP) and of monitoring and evaluating its operation. It also coordinates and gives support in terms of disaster prevention and mitigation, emergency response and recovery, capacity building for government departments and authorities and the private sector, and researching and developing plans for disaster prevention and mitigation in an effective manner. As a national focal point of the government, the DDPM coordinates and takes all actions associated with the prevention and mitigation of disasters. Through a system of hierarchical bureaucracy, the DDPM has regional offices in 76 provinces throughout Thailand.

On 6 November 2007, the Disaster Prevention and Mitigation Act 2007 (DPM Act 2007) came into effect; thus, the system of disaster management based on the DPM Act 2007 came into force and Thailand's national disaster management institutional arrangement was implemented. The DPM Act determines what constitutes a disaster, details the institutional arrangements for disaster prevention and mitigation, and identifies the similar departments' responsibilities. The National Disaster Prevention and Mitigation Committee (NDPMC), chaired by the Prime Minister or designated Deputy Prime Minister was established in line with the DPM Act 2007. The NDPMC is the main policy-making body, and is responsible for integrating disaster prevention and mitigation into government departments, local administrations, and the related private sector (Tanwattana & Murayama, 2014). The Director General on behalf of the DDPM is the Secretary. The NDPMC consists of 34 members and several sub-committees. The Minister of the Interior is the National Incident Commander in large-scale disasters (level 3) and the Prime Minister or Deputy Prime Minister who is assigned by the Prime Minister serves this role in a catastrophic disaster (level 4). All disaster management activities are directed and controlled by the Commander/Directors at three levels: national, provincial, and local.

In 2015, Thailand participated in the 3rd session of the UN Conference in Sendai, Japan, and endorsed the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015 - 2030 aiming to prevent new risks, reduce existing risks, minimize exposure and vulnerabilities, and strengthen preparedness and emergency responses including recovery in a sustainable and effective manner (DDPM, 2016). In this regard, the National Disaster Risk Management Plan (NDRMP) (2015) was created in alignment with the DPM Act B.E. 2007 and in conformity with the

SFDRR) 2015 - 2030 (DDPM, 2015). On 31st March 2015, the National Plan (NDRMP) 2015 was approved by the cabinet (DDPM, 2016). In the same year, the National Plan (NDRMP) 2015 was then announced to be enforced by the DDPM (DDPM, 2015). This National Plan has the concept of developing disaster prevention and preparedness systems, building disaster immunity through developing knowledge and local wisdom, strengthening the system of disaster surveillance and coping capacity, living in harmony with nature, and creating self-immunity in communities in accordance with an approach known as the “sufficiency economy philosophy”. Moreover, it has consolidated the concept of reducing disaster risks, and building disaster resilience through the formation and enhancement of public awareness in reducing disaster risks before, during, and after disaster events (DDPM, 2015).

According to the consideration, it shows that when looking at the whole NDRMP 2015, it does appear to provide institutional arrangements consisting of national, provincial, district, and sub-district committees to drive the policy and implementation on disaster management. Nevertheless, local committees do not appear in the institutional mechanism to support the driving of the operation at higher levels (DDPM, 2015). More significantly, the NDRMP 2015 clearly points out that a natural disaster learning center at different levels, such as the national, provincial, district, and local levels, should be established; nevertheless, it seems to be the centers for knowledge sharing and exchanging rather than the centers for institutional mechanisms which support the implementation for managing disasters and their risks so as to reflect the significant local issues to be proposed through this natural disaster learning center. Even though there are some parts pointing out the adoption of the CBDRM principle, CBDRM is only a small part in the Strategy of Disaster Risk Reduction illustrated in the DDPM national plan for disaster prevention and mitigation. Thus, it actually contradicts the principle of CBDRM that it should cover all cycles of disaster risk management (DDPM, 2015).

4.4 CBDRM in Local Policy in Thailand

4.4.1 Provincial level

As mentioned above, the DDPM has Provincial Disaster Prevention and Mitigation Offices in 76 provinces all over the nation. The NDRM Plan is placed into action through the system of hierarchical bureaucracy (Tanwattana &

Murayama, 2014). In this system, the Provincial Disaster Prevention and Mitigation Office has a crucial role in implementing the policy and creating the Provincial Disaster Prevention and Mitigation (PDPM) Plan, while the PDPM Plan has targets and objectives similar to the NDRM plan that contains the guideline framework for the local governmental agencies for implementation in that same direction. Also, the implementation guideline follows the NDRM Plan in that it consists of setting the committee for operating, monitoring, evaluating, and coordinating for linking information between the central (DDPM) department and provincial offices (DDPM, 2015).

According to the national disaster management mechanism, it conforms to the national level. For the policy level, the Provincial Governor is in charge of disaster prevention and mitigation in the province, with the authority to shape the Provincial Disaster Prevention and Mitigation (DPM) Plan in line with the national plan. For the operational level, the Governor is also a Director of the Provincial Disaster Management Center responsible for command, control, support, and coordinating work on disaster risk management within the respective provincial jurisdiction. In the example of the Provincial Disaster Prevention and Mitigation (PDPM) Plan of Nan Province in 2019, there is similarity in the content of the plan in line with the national plan. The CBDRM principle is adopted as part of the provincial plan that has the content conforming to the national plan (Provincial Disaster Prevention and Mitigation (PDPM) Plan of Nan Province, 2019).

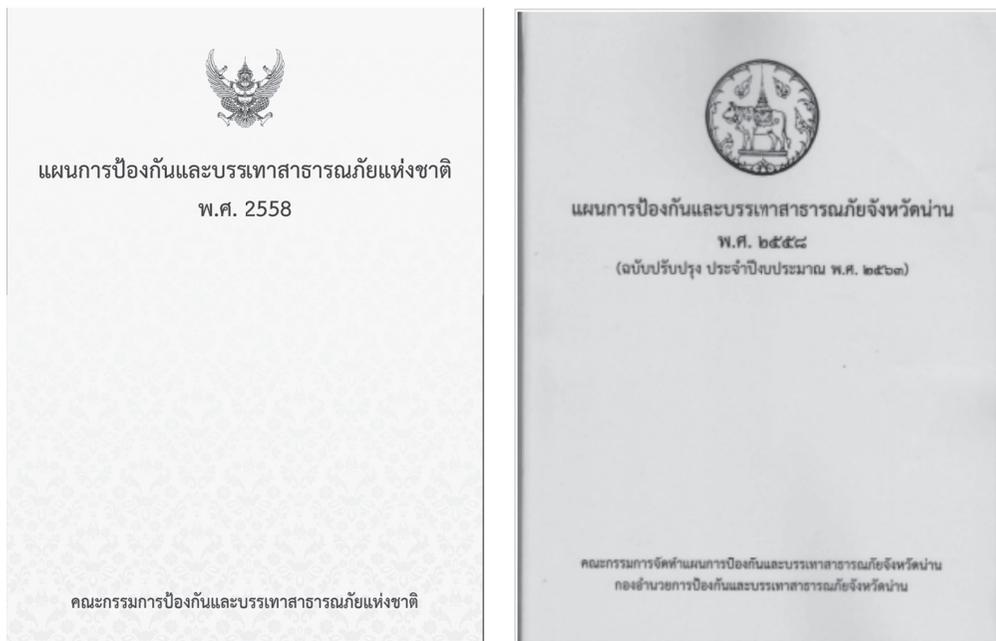


Figure 1: The National Disaster Risk Management Plan: NDRMP 2015 (left) and Provincial Disaster Prevention and Mitigation (PDDPM) Plan of Nan Province 2019 (right)

Source: The Department of Disaster Prevention and Mitigation (DDPM)

4.4.2 District level

The DPM Act of 2007 points out the details about district and local level institutional arrangements for disaster prevention and mitigation. The authority of each local administrative office is given in supporting disaster prevention and mitigation, responding to emergency events, conducting recovery, and rendering assistance to other local administrative agencies in their disaster prevention and mitigation operations.

Article 19 under the DPM Act of 2007; A district chief shall be the district director having responsibilities and performing duties on the disaster protection and prevention in their district and shall have duties to assist the provincial director as entrusted.

Article 20 under the DPM Act of 2007; A particular local administrative organization shall have the duties to prevent and mitigate public disaster in

their locality area. The local executive of such particular local administrative organization shall be responsible as the local director and shall have the powers to assist the provincial director and district directors as entrusted.

For management of disasters to be consistent with higher governmental mechanisms, the local governmental mechanism consists of Municipal Disaster Management Centers and Sub-District Administrative Organization Disaster Management Centers that are responsible for developing local plans for disaster management in alignment with the District Disaster Management Plan and the Provincial Disaster Risk Management Plan respectively. In addition, they are also in charge of facilitating, controlling, and taking action for the implementation of prevention before, the emergency response during, and the recovery after disasters (DDPM, 2015). Hence, all of these points are top-down implementation. When considering the context of the CBDRM, the local municipal administrative office mentions the CBDRM principles in the body of the community plan level that are consistent with the higher plan level. Although the local governmental agency seems to promote the CBDRM in community plan creation, it still remains unclear in terms of local community participation in creating plans for managing disasters.

In response to this action, local administrative offices conduct the creation of the local action plan by identifying the types of disasters in their own locations. In the example of the Municipal Disaster Prevention and Mitigation (MDPM) Plan of Nan Town Municipality (2019), (Figure 2 left), the CBDRM principle is adopted as part of the district disaster prevention and mitigation plan that has content conforming to the provincial and national plans respectively.

4.4.3 Community level

Chapter 3 under the constitution regarding the rights and liberties of the Thai people, Section 43, points out that people and communities shall have the right to preserve and promote or restore wisdom, save, manage and use natural resources, environment, and biodiversity in a sustainable manner, and take part in recommendation for the State to conduct any beneficial actions to people and communities under the participation of the people according to the law. Chapter 14 under the constitution contains the context of local administration. Section 249 subject to Section 1 specifies that local administration shall be organized in accordance with the principle of self-government according to the will of the

people in the locality, as per the procedure and form of local administrative organizations as provided by law (Constitution of The Kingdom of Thailand, 2017).

In this regard, in the context of Determining Plans and the process of Decentralization to the Local Government Organization Act B.E. 1999, Section 16 under Chapter 2 points out that the municipality and sub-district administration organization shall have the authority and duty to systematize the public service for the benefit of the local community to (29) prevent and mitigate disasters. Therefore, as mentioned above, provincial disaster prevention and mitigation offices shape the plan of disaster management to be the guideline for the implementation for districts, sub-districts, or municipalities according to the system of hierarchical bureaucracy. Thus, local administrative agencies have the authority to develop the local plan for managing disasters by following the guidelines of the higher governmental plan (DDPM, 2015).

As an example of a local community in Nan Town Municipality, the DDPM of Nan's provincial office launched a training program on CBDRM to the local communities. Phumin Talee Community in Nan Town Municipality is one of these. The Community Disaster Prevention and Mitigation (CDPM) Plan of Phumin Talee Community was created accordingly (Figure 2 right). However, only launching the training program could not complete the CBDRM process. Capacity building in the local community is part of a continuing process. Follow-up progress will be needed in the trained communities.



Figure 2: Municipal Disaster Prevention and Mitigation (MDPM) Plan of Nan Town Municipality, 2019 (left) and Community Disaster Prevention and Mitigation (CDPM) Plan of Phumin Talee Community, Nan Town Municipality, 2014 (right)

Source: Nan Town Municipality and Phumin Talee Community

5. Emerging Bottom-up Approaches for CBDRM in Thailand

Apart from the hierarchical plan for CBDRM by the DDPM local offices, there are also some bottom-up CBDRM processes. There is a collaboration between local communities and academic institutes aiming to promote CBDRM systems in Thailand. Some flood-prone communities were found to have developed the coping ability to organize and manage the situation to ensure their safety as a bottom-up approach. They created their own solutions to reduce the risk posed by floods instead of waiting for and wholly depending on support from the government (Tanwattana, 2018).

As an example of a bottom-up planning process on CBDRM in Nan Town municipality, the “Community Safety Plan: Flood Disaster Management of Ban Paya Phoo Community” was created in 2016. Its content comprised a community

risk map, vulnerability map, management map, community fund management, and leaflet of the community disaster management plan. Moreover, a community committee on disaster risk management was also established (Figures 3-5).



Figure 3: Community Safety Plan: Flood Disaster Management of Ban Paya phoo Community, 2016 (left) and map for community flood disaster management (right)

Source: Ban Paya phoo Community and Tanwattana, 2016

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Figure 4: Leaflet of community disaster management plan (left) and name list of community committee on disaster risk management (right)

Source: Ban Paya phoo Community and Tanwattana, 2016

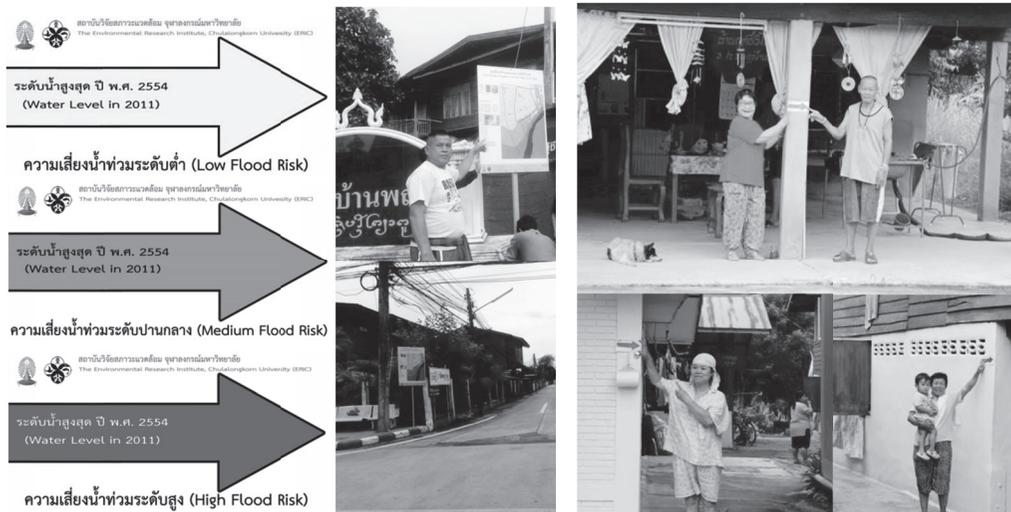


Figure 5: Community plan implementation (flood risk sign identification)

Source: Ban Paya phoo Community and Tanwattana, 2016

6. Discussion: Gaps in CBDRM Implementation in Thailand

Global policies or frameworks such as the HFA, SFDRR, SDGs and the Paris Agreement give importance to building the resilience to disasters of both nations and communities. In the Asian region, there have been many studies on CBDRM

implementation in several nations that mostly give importance to strengthening institutional arrangements. In Thailand, there is CBDRM operation in the nation both in national governmental agencies and NGOs as well as educational institutes with the aim of building the capacity and institutional arrangements. At the local level both provincial and district levels also operate CBDRM in line with the national government. However, after considering the DDPM plan, it does not appear that the promotion of the CDRMO is conducted by national government agencies. More significantly, it does not appear there are any studies/projects on CDRMO to support the institutional mechanism to manage disasters and their risks at the local level.

Figure 6 shows the analytical framework on different policy levels in supporting CBDRM: (1) a guideline on community disaster risk reduction and resilience from global and regional levels has an influence on Thai national and local policies respectively; (2) the governmental operational system holds on the hierarchical command in response to disaster events from national to provincial and district levels, and (3) the role of local government in supporting local communities both through hierarchical command and additional facilitating as a training and capacity building project.

On the other side, a bottom-up approach from good practice can be an additional facilitating mechanism to enhance CBDRM. To build community capacity through the CBDRM process needs a continuing process. The CBDRM should be encouraged in conjunction with CDRMO which is a structural mechanism to drive the sustainable CBDRM action. The promotion of CDRMO will allow the set-up of the local community committee level that will bring about support for the system of CBDRM implementation in a more effective manner. Thus, CDRMO should be more focused. Therefore, there is a need to study the CDRMO with the aim of promoting CBDRM systems in Thailand and supporting the application of the lessons learned for the governmental policy design.

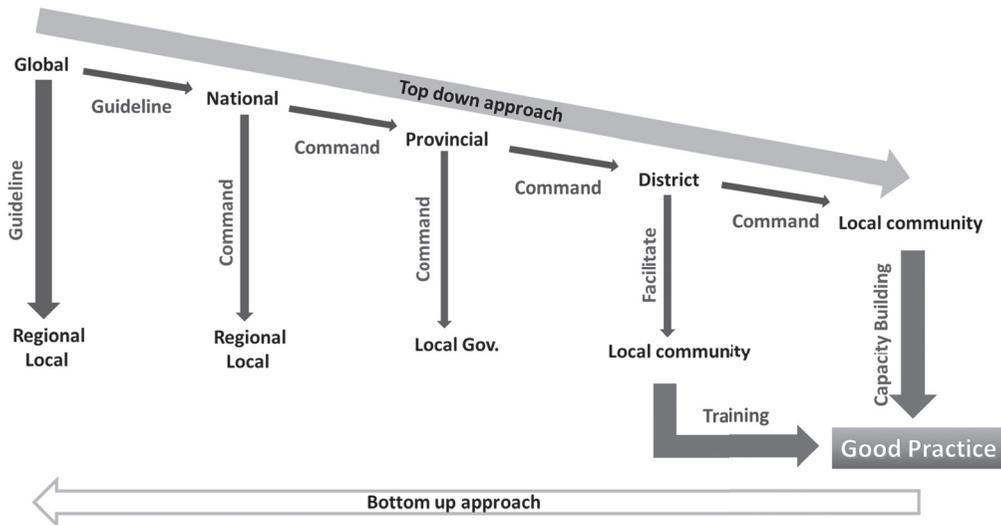


Figure 6: Analytical framework on different policy levels in supporting CBDRM

Source: By author

7. Conclusion

This research argues that the gaps in policy implementation in supporting CBDRM in Thailand are that 1) the government hierarchical command (top-down approach) has limitations despite the promotion of the CBDRM principle, 2) the local community participation in creating plans for managing disasters still remains unclear, and 3) there is a lack of institutional channels for local communities to enhance their capacity for disaster risk reduction. Thus, bottom-up CBDRM and enhancing CDRMO should be the main focus.

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