



# Gender and Disaster Management: A Case Study of Prik Tai Community, Songkhla Province, Thailand

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**Abstract:** The objectives of this qualitative research are to study (1) community-based disaster (flood) management processes and (2) gender roles in disaster management. The research was conducted in Prik Tai, a Buddhist community in Sadao District, Songkhla Province, Southern Thailand. Research methods employed in this investigation were participant and non-participant observations and semi-structured interviews. Results show that disaster management in the Prik Tai community can be divided into three periods: 1988 to 1999, 2000 to 2009, and 2010 up to the present. The roles of women in the community were related to reproductive work, particularly household chores and care of family members. The women employed their skills in caring for the well-being of family members in disaster management and community work. In terms of gender division of labor, women played all three roles (production, reproductive work, and community work). Male roles in production and community work were labor-intensive and involved a higher level of risk than those of women. The female community core team members played key roles in social reproduction, household chores, unpaid services, and community work, which significantly contributed to the well-being of community members and vulnerable groups. However, the value and contribution of female social reproduction is not yet recognized by the state and society. It is vital to promote the social recognition of female social reproduction at the household and community levels, as one of the initial points in the process of decreasing gender inequality.

**Keywords:** *Community, Disaster Management, Gender, Thailand, Women*

## Introduction

Current disaster risk management (DRM) concepts focus on preparation before a disaster occurs. The Sendai Framework for Disaster Risk Reduction 2015 to 2030 has been adopted in Thailand (Kondo 2015). The framework stresses the importance of understanding the risks arising from disasters, strengthens the capacity for DRM, encourages investment in disaster risk reduction, and enhances disaster management readiness for effective response and better reconstruction. The disaster management model can be divided into three steps: (1) Before a disaster occurs—preparedness in dealing with disasters that may occur in the future; (2) During the disaster—action and coordination between people and agencies to reduce damage from disasters; and (3) After a disaster has occurred—restoration of the mental state and the structure of buildings and various public utilities, both in the short term and in the long term (Kamolwet 2011; Office of Women's Affairs and Family Development 2012; Pelling 2003).

In most cases, women are more likely to be identified as being at risk of or vulnerable to disasters than men. This is a result of the social values and cultural context that prevails in each area (Arora-Jonsson 2011; Enarson and Haworth-Brockman 2008; Flintan 2011; Resurrección 2013; Weerawittayakul 2001). The impact of disasters and local disaster management reveals inequalities between women and men. This has led to calls by international aid agencies like the Food and Agriculture Organization of the United Nations (FAO), the World Food Program (WFP), International Non-Governmental Organizations (INGOs), and the Oxford Committee for Famine Relief (Oxfam) for the inclusion of gender concepts in policies and DRM plans, with a focus on providing assistance to vulnerable groups (Enarson and Haworth-Brockman 2008; United Nations International Strategy for Disaster Reduction [UNISDR] 2005, 2009).

Since the 2000s, research ideas related to disaster and gender have not only focused on the equality of women and men but have also considered social structures. Yadav et al.'s (2021) study identifies vulnerable groups (comprising women, the elderly, children, and men) and efforts at the societal level aimed at pushing the concept of equality and gender equality into policy and practice (mainstreaming). Yadav stresses the importance of broadening the focus of policymaking beyond the male–female dichotomy. Instead, it is about understanding women and men at various social levels because, as Yadav argues, inequality is a result of individual social status and class. In modern policymaking, it is important to abolish the concept of patriarchy that may put men under more pressure to be risk-takers, even though they may be more vulnerable than some women (Rushton 2020).

In addition, research by Laska et al. (2008) and Flintan (2011) highlighted the role of women as leaders in disaster management responses. These studies address the leadership of women often present in disaster response and recovery in an informal and not-for-profit manner. They conclude that women solve problems in their daily lives by joining mutual support groups. During disaster situations, women frequently leverage established community groups to lessen the impact, effectively addressing particular issues while also accumulating shared resources to aid community members. The research proposal of Laska et al. (2008) does indicate that in many communities there are women who have had the opportunity to play a role in community activities as community leaders. However, there have been few studies on the nature of gender issues in disaster management. How are women and men in households and communities involved in disaster management? Gender education at this level will lead to more knowledge in disaster management that responds to the needs of both women and men. This will open up more opportunities for women to be involved in management, including raising the level of disaster management to be more efficient.

In recent years, natural disasters have increased in frequency and intensity, including in Thailand. On the issue of gender and disaster management in Thailand, it was found that only the Handbook on Disaster Management from Gender Perspectives 2010 (Gender Equality Promotion Office 2010) presented the idea of promoting gender equality in disaster management. Programs for rehabilitation continue to mention that women are the only vulnerable group needing help and rehabilitation.

Prik Sub-District is located in the upstream area of U-Tapao Canal, which is the main water source for consumption in Songkhla Province. As much as 90 percent of Prik Sub-District is affected by flooding, which occurs almost every year. The water that floods the area along the canal has a mild impact on the surrounding community area. Consequently, the community has been forced to adapt and cope with flooding for more than two decades. Disaster management in the U-Tapao Canal Basin is operated in upstream, midstream, and downstream networks, with the community as the center for disaster management activities. A community disaster management manual has been prepared for disasters in three stages: before, during, and after. This is managed by a mixed-gender working group, the Asian Cities Climate Change Resilience Network (ACCCRN). Prik Sub-District, Sadao District, Songkhla Province, has been selected for inclusion in the aforementioned initiative.

This article aims to analyze the roles of men and women in the three stages of community flood management in Prik Tai. The research problem explored here is the high workload of Thai women, especially in the Prik Tai community, in both normal and disaster situations caused by societal expectations and traditional divisions of labor. The research question, therefore, aims to explore the following question: how can the roles and responsibilities of Thai women, especially within the areas of production, reproductive work, and community work, be recognized, valued, and effectively incorporated into policy and planning, especially in disaster management, to alleviate their excessive workload and promote social and gender equity?

## Literature Review

This investigation is conducted through the joint conceptual frameworks of gender division of labor and social reproduction.

### Gender Division of Labor in Disaster Management

Moser (1993) presents concepts and methods for planning the development of gender issues in less economically developed countries. Her gender division of labor identifies three clear roles: (1) reproductive work or family care, which are jobs that involve taking care of the well-being and health of people in the house, including the duty of member production. The majority of these roles are occupied by women; (2) productive work is performed by both men and women and involves value-added production to generate income for households; (3) social work or community work is any activity that women and men perform in their free time away from work in the two aforementioned roles. Most examples of this are voluntary, and most female community roles are complementary to reproductive jobs, such as health care and managing shared resources within the community (Balgah, Amungwa, and Egwu 2019). These are unpaid jobs and unlike male social work, which includes political roles within the community. The latter are often paid jobs or lead to an increase in status and power. These three roles are the main tasks for women, both in normal life and in disaster situations.

Much of the research on gender issues and disasters has focused on women as being more severely affected than men or as victims (Arora-Jonsson 2011; Resurrección 2013). Groups vulnerable to disasters typically include the poor, elderly, youth, minorities, and disabled, women being particularly at risk, with heightened vulnerability in the face of multiple such characteristics. However, disaster impacts on women are not uniform, with disparities in race and socioeconomic status leading to varied susceptibilities. Financially disadvantaged women, especially those leading households or the elderly, face significant limitations in emergency situations due to scarce resources, leading to a heightened vulnerability to long-term effects. Conversely, women with economic resources have more options (Laska et al. 2008). Women are responsible for caring for family members during disasters and are more affected than men. As a result of the disaster, men migrate to work away from home and leave the burden of taking care of the family on the woman. Such restrictions prevent women from working outside the home. Under pressure, women have to rise up as family heads, caring for family members in an unfavorable post-disaster environment (Laska et al. 2008). The Active Learning Network for Accountability and Performance in Humanitarian Action (Slim and Bonwick 2006) noted that most women and girls often become victims of disasters due to cultural limitations that restrict them to care for the home and not leave the household without the man's permission. Yet, at the same time, customary behavior and requirements of gender-based stereotypes can also have a negative impact on both men and boys. This is because of societal conceptions of masculinity that force men to feel as though they must take extreme risks to protect the lives and property of their families and communities.

### Social Reproduction

In addition to the concept of dividing labor between men and women, the concept of social reproduction has elevated the value and importance of women's reproductive work by criticizing capitalism for its emphasis on profitable productive work over reproductive work. This concept has been continuously developed since 1997. Rai, Hoskyns, and Thomas (2010) describe the concept of social reproduction as

biological reproduction (including producing labor). This carries with it the provision of the sexual, emotional and affective services that are required to maintain family and intimate relationships; unpaid production in the home of both goods and services. This includes different forms of care, as well as social provisioning and voluntary work directed at meeting needs in and of the community; the reproduction of culture and ideology, which stabilizes (and sometimes challenges) dominant social relations. (3)

Although social reproduction has created value for families and communities, this work is not yet valued and included in the UN System of Nation Accounts (SNA), nor is it included in the national gross domestic product (GDP) for women. As a result of an analysis of research on economic gender integration in the last twenty years, The New Household Economics has

introduced a theory concerning gender inequality within the household. The concept emphasizes the analysis and emphasis on production as separate from reproductive work. Reproductive work has also increased societal understanding of the importance of women's reproductive roles (Kabeer 2005).

Rai, Hoskyns, and Thomas (2010, 2014) present the concept of depletion of social reproductive work. Degradation occurs when the labor force of women used in social reproductive work outweighs the output in terms of well-being. Although social reproduction is in the context of consensual household relationships, women's physical and mental health will deteriorate if society ignores and does not value social reproductive work. Recognizing the value of women's reproductive work will mitigate the damage caused by injury and illness to the body, as well as reducing the loss of value in social reproduction. It is thus essential for society to recognize the significance of social reproductive work on the degradation of women, whether or not such work is chosen by women. Paid and unpaid social reproductive work should be considered valuable, and the state should supervise and provide welfare assistance for this kind of work.

## Methodology

### Conceptual Framework

The conceptual framework of this study is based on the gendered division of labor within the Prik Tai community in Thailand and its impact on women's workload in both normal and disaster situations. At its core, the framework utilizes the lens of political-economic feminism to examine the triple roles women play in their societies: productive work, reproductive work (household chores, caring for children and the elderly), and community work. It questions the societal value and recognition given to these roles, particularly the reproductive and community work that often remains invisible in official statistics and policy considerations. In the context of disaster management, the study explores how these roles are further exacerbated, posing potential health risks to women due to the increased demands placed on them. Moreover, the framework examines the effects of demographic shifts in Thailand, with a specific focus on the aging population, and how this places additional pressure on women to fulfill their traditional roles. It emphasizes the need for policy adjustments that recognize and support women's roles, particularly in social reproduction, at both household and community levels. The framework incorporates international feminist perspectives, highlighting how the recognition of women's roles in social reproduction can be a starting point for reducing gender inequality and reshaping mainstream paradigms.

### Research Site

The study area in this investigation is Prik Tai, a community located in the south of the administrative area of Prik Sub-District Municipality, Sadao District, Songkhla Province. The community is in the lower southern part of Thailand and is located in the upper part of the

U-Tapao Canal, which is an important source for tap water production in the region. As much as 90 percent of the Prik Sub-District area suffers from flooding, which usually occurs annually for about two to three days in November/December.

Before 1999, Prik Sub-District was recognized as a *sukhaphiban*, or sanitary district (a former sub-autonomous administrative division in Thailand). The maintenance of peace and order was governed within the community by a headman. The people of Prik Sub-District had a close relationship with one another and there was mutual assistance both within and between communities. In 1999, the administrative status of Prik Sub-District changed from a sanitary district to a municipality. In Prik Sub-District, seven committees were established to work with the municipality and act as community representatives in presenting project plans to request a budget from the municipality for community activities.

To combat flooding, residents of Prik Sub-District have driven environmental conservation activities through groups and networks within the U-Tapao Canal Basin. These have included the participation of government agencies, communities, and non-governmental organizations (NGOs) (Kuaklang 2007; Kunthon 2006; Pisanwatcharin 2007). In 2014, the Prik Sub-District Community was one of the selected areas to participate in ACCCRN to carry out flood management activities in communities in the U-Tapao River Basin, Songkhla Province. This project emphasizes the process of community participation and preparedness for dealing with floods in the form of a disaster management network within the U-Tapao Canal Basin (Siriporananon and Visuthismajarn 2018). Prik community leaders, both men and women, participated in the preparation of the flood preparedness manuals separately. The seven communities clearly included a flood management map to identify risky areas, gathering points, and evacuation shelters.

The study area in this article is the Prik Tai community, which is one of the seven communities located in Prik Sub-District. There are 403 people within the community, 191 men and 212 women, living in 103 households and covering an area of approximately 115 rai.<sup>1</sup> Geographically, the area is a floodplain. The U-Tapao Canal runs through the west of the community and the Prik Canal through the northeast of the community. About 90 percent of the area is affected by flooding almost every year, but the runoff water that floods the area along the canal is particularly problematic in the community area.

## Research Methodology

This research is a qualitative study on gender issues in three stages of disaster management, pre-disaster, during the disaster, and after the disaster, both at the household and community levels. This includes gender issues in everyday life under normal conditions. The researchers focused on three target groups: community members, vulnerable groups, and community leaders. The division of disaster management informants is included in Table 1.

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<sup>1</sup> A unit of land measurement in Thailand equal to 1600 sq. m.

Table 1: Informant Groups for This Investigation

<i>Informant Group</i>	<i>Attributes</i>
1. Key Informants: Eighteen main flood management informants identified using a snowball sampling method	Nine households with both men and women Three households of community leaders Three households of community members Three vulnerable households (households in a state of inadequate self-protection and unable to cope with disasters or recovering damage caused by disasters)
2. Casual Informants: Community leaders who play a role in community disaster management activities. Half of the total number of leaders in the group were selected using the homogeneous sample concept (Kuzel 1992)	A sample of leaders who participate in flood management activities within the community, amounting to four people (there are eight leaders in the community disaster management group)
3. General Informants: Twenty-six people involved in disaster management within the community and related to the key informants	Elders, original community members, and other community members related to the key informants. Prik municipality officials involved in disaster management activities and staff from external organizations entering the community to carry out disaster management activities within the community, including ACCCRN (Siriporananon and Visuthismajarn 2018)

Methods of data collection included participant observation, non-participant observation, and semi-structured interviews. The researchers used all three research methods to collect data related to disaster management and non-disaster management issues. Opportunities were provided for informants to discuss and exchange stories through storytelling from their own experiences. Information obtained from all data collection methods was validated using a data triangulation method that considered the origin, gender of the source, and place and period of data collection (Chantavanich 2010).

The study is divided into flood management within the household and flood management at the community level and uses disaster management data for three events in each period. These three events were times when there were major flood events within the community, namely, (1) the November 1988 flood, when the water level was approximately 1.5 m high for seven days; (2) December 2000, when the water level was approximately 1.2 m high for about four days; and (3) November 2010, when the flood level was about 1.5 to 2 m high for about three to four days.

## Results

This research uses the DRM concept (Department of Disaster Prevention and Mitigation 2010; Kamolwet 2011; Pelling 2003), which has four process areas: mitigation, preparedness, response, and rehabilitation. The disaster management process is also divided into three periods: pre-disaster, during the disaster, and after the disaster, both at the household and at the community levels.

### Background

In this section, information on the division of labor between men and women is presented according to the daily situation of the target group. The conceptual framework of gender

labor division was applied to the target group. Results from the nine informant households are summarized in Table 2.

Table 2: Division of Labor between Men and Women within Nine Households in the Research Area

	<i>Community Leader Households</i>			<i>Community Member Households</i>			<i>Vulnerable Group Households</i>		
	1	2	3	4	5	6	7 (Single Mother)	8 (Sick)	9 (Sick and Alone)
Production Rubber tapping Market trading Manual labor/ Government employment	☆	☆	☆ ○	☆	☆ ○●	○ ○	○	●	Pay employee to tap rubber
Reproduction Taking care of the house Taking care of family members	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	● ●	Family members and neighbors help

Note: ○ = Main role of female; ● = Main role of male; ☆ = Shared role

According to the results depicted in Table 2, the division of labor between men and women within the productive household jobs (the main source of income for the household) is shared by both men and women. In homes where women are the head of the family or are single mothers, women also work to earn money for their families. Reproductive work in all households was mostly the responsibility of females. The only exception to this was in the house of an amputee, who was unable to work. In this instance, men had to take care of the house.

In summary, women are involved in both roles in the house, production and reproduction. By contrast, men play their largest role in productive jobs. Only one man out of the nine case studies was involved in reproductive work, and this was only due to forced circumstances, when the woman in the house was unable to work in this area.

### Disaster Management at the Household Level

Whether under normal circumstances or in the event of a disaster, it is the role of women to manage reproductive work. This study found only one male out of the nine households who had a role in reproduction, and only because the women in the house were unable to work in this field. At the household level before disasters, women are responsible for collecting belongings, preparing food and drinking water, and caring for family members. During a disaster, whether in the households of community leaders, community members, or vulnerable groups, women still manage the house. They continue to care for household



members and prepare and cook meals for members of the household or for sharing with neighbors. After the disaster, women continue to keep the house clean and inspect and repair damages with the men. The role of women in disaster management in all three periods is therefore related to bringing the skills and experiences that they use in everyday life to take care of their families. These are all reproductive tasks that have always been the primary duty of women in the household. Figure 1 presents household-level flood management data for the three aforementioned time periods described as a comparative study of gender roles.

		Disaster Management in the Household		Disaster Management Flooding Situation
Pre-Disaster	1988 - before becoming a municipality	Women in all three groups clean the house, tidy the home and prepare the food.	Men in all three groups monitor the water level and decide whether to move items	
	2000 - after becoming a municipality	Start to use municipality information in decision-making		
	2010 - after joining ACCCRN	Women in all three groups continue to perform responsibilities as listed above.	Men in all three groups continue to perform responsibilities as listed above but use municipality information when monitoring the water levels	
Pre-Disaster	1988 - before becoming a municipality	Women in all three groups take care of members of the household and prepare the food.	Men in all three groups monitor the water level, help people in neighboring communities, forage for vegetables and go fishing in the flood waters	
	2000 - after becoming a municipality		Men in all three groups monitor the water level, help people in neighboring communities, and seek food and help from elsewhere	
	2010 - after joining ACCCRN			
Pre-Disaster	1988 - before becoming a municipality	Women in all three groups survey and fix the home, clean the inside of the house, contact and seek help from the authorities	Men in all three groups survey and fix the home, and contact and seek help from the authorities	
	2000 - after becoming a municipality			
	2010 - after joining ACCCRN			

Figure 1: Flood Management at the Household Level in All Three Phases (Women’s Roles—Left; Men’s Roles—Right)

Figure 1 shows that there has not been much of a difference in the role of women in disaster management over time at the household level. All three groups are involved in maintaining the state of the house, taking care of household members, and preparing food and drinking water. These are low-risk jobs. Meanwhile, men are involved in physical work and work outside the home that carries more risks than women.

Since 1999, the municipality has worked with the community committee to fix budgets and run projects in the community, such as activities to train vocational skills and the establishment of a savings group. There is improvement and development of roads within the community and public electricity infrastructure, resulting in the expansion of the community and construction of more houses. Local community lifestyle has changed, but only a little. The role of women in the household continues to revolve around caring for

family members and earning money through rubber tapping and collection. In leader households, both women and men spend the rest of their free time doing community work.

On the issue of disaster management at the household level, the role of women in managing domestic disasters remains the same, while the role of men has decreased from the original situation. This is due to the entry of municipalities and other agencies involved in creating flood management networks and playing a greater role in helping community members. In the past, community members had to monitor the water level in the canals. When municipalities and other agencies came to develop plans and activities for disaster management in the community, as well as creating a surveillance network, the task of monitoring the water level gradually disappeared from the man’s duties. This was due to the availability of information from the municipality, enabling locals to make informed decisions.

### Flood Management at the Community Level

<b>Disaster Management at the Community Level</b>			
<b>Pre-Disaster</b>	1988 - before becoming a municipality	Women in all three groups stay in their own home and take care of the house, tidy and prepare food.	Men in all three groups monitor the water level and inform the community, walk around the community to inform one another
	2000 - after becoming a municipality	<b>Municipal plan to prepare for disaster management</b>	
	2010 - after joining ACCCRN	(Leaders) Present safety problems to community members and delegate reproductive duties (Other Groups) Wait for announcements from municipality	(Leaders) Create drainage channels, survey water with municipality, practice flooding evacuation plans (Other Groups) Use municipal information to decide and watch out
<b>Pre-Disaster</b>	1988 - before becoming a municipality	(Leaders / Members) Stay home, take care of home, prepare food for selves and neighbors	(Leaders / Members) Help in the community, distribute food locally
	2000 - after becoming a municipality	(Leaders / Members) Work in food banks or in first aid (Vulnerable) Wait at home or evacuate	(Leaders / Members) Part of evacuation team, help the community (Vulnerable) Wait at home or evacuate
	2010 - after joining ACCCRN	(Leaders / Members) Work in food banks or in first aid (Vulnerable*) Wait at home or evacuate * Identified by municipality	(Leaders / Members) Part of evacuation team, help the community (Vulnerable*) Wait at home or evacuate * Identified by municipality
<b>Pre-Disaster</b>	1988 - before becoming a municipality	(All Groups) Survey, repair and clean home and community	(All Groups) Survey, repair and clean home and community
	2000 - after becoming a municipality	(Leaders) Survey damages, distribute aid (Other Groups) Survey, clean, repair (home + community). Contact for help	(Leaders) Survey, repair, tidy community (Other Groups) Survey, repair, tidy home. Contact authorities for help
	2010 - after joining ACCCRN	(Leaders) Survey damages, distribute aid (Other Groups) Survey, clean, repair (home + community). Contact for help	(Leaders) Survey, repair, tidy community (Other Groups) Survey, repair, tidy home. Contact authorities for help

Figure 2: Community-Level Flood Management in All Three Phases (Women’s Roles—Left; Men’s Roles—Right)

Figure 2, community-level disaster management in all three phases, demonstrates that leading women in the community are still involved in the management of community members. The duty of women to be stewards of the well-being of the family was also extended to other members, as well as surveying damages and low-risk repair work. Men perform riskier physical tasks and jobs. At the household level, the roles of women and men in disaster management are similar.

Prior to the involvement of the municipality and agencies, when disaster struck, female roles were predominantly reproductive. Women used their skills in caring for the well-being of the family and extended this care to other members of the community. Even after evacuation to a temporary evacuation point, women continued to help with cooking and caring for the health of vulnerable community members, especially the elderly and children. Meanwhile, men engaged in more physically demanding work and riskier external jobs, such as helping neighbors move their belongings and distributing food and drinking water to community members.

Subsequently, when municipalities and other agencies came to formulate flood management plans from 2000 onwards, a number of women became involved in community committees or worked as community leaders within Prik Sub-District Municipality. Women leaders were given the opportunity to participate in training activities to develop their knowledge and skills in dealing with and managing disasters, as well as to participate in meetings to present problems and plans to deal with disasters. The role of women leaders is still related to their ability to care for community members, and they tend to take on low-risk jobs.

Although disaster management at the community level is gradually changing, the focus is on preparing to deal with disasters rather than reacting after they have occurred (as in the past). Municipalities play a greater role in disaster management within communities. There are plans in place to prepare the community before a disaster occurs. Community members have begun to receive information from both community committees and agencies to help them make decisions on disaster preparedness. There is also a clearly defined structure and roles, including the preparation of a disaster management manual, risk map, and identification of vulnerable groups.

In addition to community disaster management plans and manuals prepared in conjunction with municipalities, vulnerable groups were identified to assist in the evacuation process. However, some vulnerable groups still have limited access to resources because there is no uniform document to request assistance according to the conditions in the bureaucratic system. Women leaders take care of the well-being and health of community members, especially the underprivileged groups in the community. Such skills have been used to help the underprivileged in the community access more government resources by negotiating for assistance from government agencies to pass on to those vulnerable groups.

However, in all disaster preparedness plans developed by the local communities, municipalities, and agencies, there is only a structure, operational steps, definition of individual roles and responsibilities, and management plans according to the disaster management framework. Within this, female leaders of the Prik Tai Community Flood Preparedness Committee are involved in health care, surveying, and welfare. These are all low-risk tasks related to the care of community members. The male leaders are all in warning and public relations roles, or involved with security, evacuation, and movement. Clearly, women are assigned responsibilities based on the original concept that women should work in reproductive areas.

## The Mission of Women Leaders in the Community

The role of women leaders in the community began when they registered as village health volunteers (VHV) before 1999. These pioneering women leaders wanted to attend training courses in caring for the sick and the elderly in order to take that knowledge back to care for elderly, chronically ill, or young people at home. This was also motivated by the need for the remuneration involved with being a VHV that could be spent in the family, as well as gaining the opportunity to access budgets and the right to bring health initiatives to local communities and families. After the government form changed from a sanitary district to a municipality, some of the female community leaders who had previously joined as volunteers were elected to be members of community committees working with the municipality. Most of the female community leader missions were taking care of the well-being of community members, including volunteer work, and roles in housewife groups and savings groups.

When the municipality structure was in effect, the work model provided an opportunity for community leaders to represent the needs of the community in meetings with representatives of the municipality. The mayor became the main authority to decide budget allocations under a decentralized administrative power through community committees. However, this power was also vertical, with top-down policymaking. Community committees and municipal council members are primarily responsible for the tasks set by the municipality. From 2006 to 2022, there has been only one female municipal council member in Prik Tai, who was elected from 2002 to 2005. With these limits to decision-making and power at the policy level for women, most Prik Tai community committees (whose membership is largely female) deem it necessary to use fundraising methods to drive community work because they cannot guarantee they will be successful in requesting budget from the municipality or when such funding will be received. These fundraising initiatives include raising money to build or repair housing for elderly people with no relatives in the community, establishment of a savings group to solve problems caused by informal loans and protection from debt collection, utilizing skills from vocational training held at municipalities, and bringing income to the family. The events are reflected upon with pride that the community has been able to successfully solve its own problems by mobilizing among themselves without going through municipal budgets.

Therefore, the participation of women in local policymaking, both community management and disaster management, is very important in terms of social inclusion, covering the most disadvantaged and vulnerable groups. Women leaders use informal social mechanisms to access resources for communities and vulnerable groups because there is no decision-making power for them in the policymaking process.

## Discussion

### Gender and Disaster Management

When analyzing the role of women's missions using the concept of division of labor between women and men in both normal and disaster situations at both the household and

community levels, it can be seen that women have played a role in all three areas of work, production, reproductive work, and community work. The important question is, how much time and effort does it take for a woman to fulfill each role? In the case of the female leaders of the Prik Tai community, they use their free time from earning money and taking care of the family and the household to work in the community. Considering the time these women spend in their daily lives (in addition to sleeping time), they seem to have no time for themselves at all. This condition does not appear to be different from the case of women leaders in other research (Kittitornkul and Puwajarermpong 2016). This suggests that not the women of Prik Tai alone but most women in Thai society are exceeding the capacity of their bodies and run the risk of longer term health problems, especially in the current situation where Thailand is facing demographic changes. This puts a greater strain on women both at the household and at the community level.

Reproductive work has become a societal expectation that has become the primary duty of women. Women who work outside the home often face questions regarding the balance between their outside work and domestic responsibilities; they are hindered by the image of the woman tied to family care. As a result, women in the manufacturing sector and women with a higher socioeconomic status use their money to buy care from women with a lower social status. These individuals become cheap labor for women with a high income and help them to maintain the balance between family responsibilities and productive or community work. At the same time, lower-level women lose their role in taking care of their own families in exchange for economic compensation (Buranacharoenkit 2017). Commentators have consequently argued that the value and importance of reproductive work, as the main societal function of women, should be increased (Benería 1979; Hoskyns and Rai 2007; Rai, Hoskyns, and Thomas 2010).

According to the data on the Thai population, in 2020 compared to 2012, the percentage of childhood household members (aged 0–14 years) decreased from 18.55 percent to 15.80 percent, the percentage of working-age household members (aged 15–59 years) decreased from 67.03 percent to 64.12 percent, and the percentage of elderly (60 years and over) increased from 12.68 percent to 18.24 percent (United Nations Population Fund [UNFPA] 2022). This data shows that in the future, population growth will decrease, resulting in a decrease in the working-age population. The cause of this population decline is the changing values of having a family in modern society as a result of economic factors caused by low incomes and higher cost of living. Furthermore, the values of independent living in the new generation have had an impact. Thai marriage statistics show that the number of marriages has decreased by an average of 0.8 percent per year, and the number of single-parent households with one child has increased by 63 percent (UNFPA 2016). The increase in household debt in Thai society, partly due to the impact of the COVID-19 epidemic during 2020 to 2022, has also had a more severe impact on poor households.

The preceding information emphasizes the fact that Thailand is an aging society. In the past, the obligation to take care of the family fell on the women in the family. Women of working age needed to work to earn money while taking care of family members. While revenue-generating

manufacturing jobs are included in GDP, they are used as a tool for policymaking and economic development plans. However, women's labor is required to drive household and community activities, and this is still not included in the workforce statistics or policymaking considerations. In addition, society and the state do not give importance to such issues.

International feminists, including Rai, Hoskyns, and Thomas (2014), have emphasized that the female labor force is expended in neglected and overused social reproductive work and can have a negative effect on a woman's physical and mental health. This can also cause damage to families and communities as well, especially if the government and society pay no attention to or ignore these issues. There must be guidelines set for providing policy assistance related to the promotion of various welfare schemes for the elderly and their families. There are also no serious and urgent measures to empower women leaders and women groups in the community. Most women in Thai society, especially women in disadvantaged groups, will have to bear an even heavier burden with these impending demographic changes, and Thai society, as a whole, will suffer damage as well. This viewpoint echoes the findings of the current study in the Prik Tai community, where women leaders' significant contributions to social reproductive work are often overlooked, placing their well-being at risk. The need for governmental and societal recognition, through policy changes and empowerment initiatives, is crucial in mitigating the impending challenges, particularly as Thailand confronts demographic shifts that further strain these women.

Political-economic feminists have proposed that reproductive work be counted as an economically appraised labor force. It is both a starting point for reducing gender inequality and a shift in mainstream paradigms. It emphasizes the importance of women's social reproductive work at the household and community levels being raised as an issue that the government and society, as a whole, must pay more attention to. On a global scale, society has become more equal in terms of gender, especially thanks to the UN Sustainable Development Goals campaign, which aims (among other targets) to achieve gender equality and empower women and girls. However, measures will continue to be criticized by feminist movements at the international level if female roles in social reproduction are not fully recognized (Rai, Brown, and Ruwanpura 2019).

## Conclusion

This investigation explored the crucial role women play in disaster management, as well as the cost they pay for it in terms of their health and well-being. The study brings to light the hidden labor that women contribute in the form of reproductive work, a role intensified in times of crisis like disasters, at both the household and the community levels. Within the Prik Tai community, women leaders have been found to dedicate their limited spare time to community service, often exceeding their physical capacity and risking their health. Concurrently, their roles in social reproduction work and disaster management, although crucial, are undervalued and remain largely unrecognized by the society and state. These findings resonate with other research showing that women in various sections of Thai society face similar circumstances.

Despite contributing significantly to the societal and community fabric, their work is not adequately recognized or compensated, nor is it factored into workforce statistics or policymaking considerations. This research underscores the need to confront these issues and provide appropriate recognition and support to women in these roles.

Over the past few decades in Thai society, the concept of feminism has been used to conduct more gender analyses and present the problem of gender inequality in the economy, society, politics, and environment. This is partly due to the current struggle of the feminist movement internationally, which resulted in the World Conferences on Women by the United Nations from 1975 onwards, including the Fourth World Conference on Women in Beijing in 1995, which focused on the issue of gender equality on the global agenda. Domestically, it is also as a result of development approaches to drive the social struggle and feminist movement by women's organizations, local women's groups, and various NGOs in Thai society (Angsuwithoon 2015 as cited in Kittitornkul and Puwajareernpong 2016). This context helps to recognize the importance of women's role in social reproduction, both in managing flood disasters and in community mobilization. However, the significance and value of the role have not yet been realized, nor have associated problems been addressed by the state and society as a whole.

## **Recommendations**

Developing a disaster management plan that is gender inclusive with decentralized mechanisms should be promoted, and more women should become involved in the formulation of policies and plans. As Agarwal (2000) stated, the number of women participating in the role is a critical mass, and the proportion of the number of women participating must be large enough to result in structural changes. Westermann, Ashby, and Pretty (2005) stated that women were more cooperative, demonstrating a collaboration solidarity, and better at conflict resolution. Women have relational social capital, while men have institutional social capital. Therefore, to promote participation, it is necessary to increase the rules, procedures, and reinforcement conducive to women or, alternatively, create institutional social capital. Rai, Hoskyns, and Thomas (2014) emphasize the neglect of the conditions under which the women's labor force is used in social reproductive work. It exceeds the limit because women have to absorb a high workload, at both the household and community levels, which the state and society do not pay attention to. This is an unsustainable burden on women. Therefore, the state and society should formulate policies and operational plans that focus on promoting social structures and welfare. These will provide well-being benefits to vulnerable groups, the elderly and children, and reduce women's social reproductive obligations at both the household and community levels.

## **Informed Consent**

The author has obtained informed consent from all participants.

## **Conflict of Interest**

The author declares that there is no conflict of interest.

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