

**INTERNATIONAL JOURNAL OF LAW,  
GOVERNMENT AND COMMUNICATION  
(IJLGC)**  
[www.ijlgc.com](http://www.ijlgc.com)



**PARTICIPATION OF LEADERS, COMMUNITY LEADERS AND  
PEOPLE IN FLOOD MANAGEMENT IN RANONG  
MUNICIPALITY, RANONG PROVINCE**

Pantip Chuaynaket<sup>1\*</sup>, Worawit Chindapol<sup>2</sup>, Pawit Chalermwat<sup>3</sup>

<sup>1</sup> Graduate School, Suan Sunandha Rajabhat University, Bangkok, Thailand  
Email: s59563816019@ssru.ac.th

<sup>2</sup> Graduate School, Suan Sunandha Rajabhat University, Bangkok, Thailand

<sup>3</sup> Graduate School, Suan Sunandha Rajabhat University, Bangkok, Thailand

\* Corresponding Author

**Article Info:**

**Article history:**

Received date: 13.07.2020

Revised date: 10.08.2020

Accepted date: 30.09.2020

Published date: 01.12.2020

**To cite this document:**

Chuaynaket, P., Chindapol, W., & Chalermwat, P. (2020). Participation of Leaders, Community Leaders and People in Flood Management in Ranong Municipality, Ranong Province. *International Journal of Law, Government and Communication*, 5 (21), 13-21.

DOI: 10.35631/IJLGC.521002.

This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)



**Abstract:**

The objectives of this research were to: 1) study the level of participation in flood management of leaders, community leaders, and people in Ranong municipality, Ranong province, and 2) compare the roles, participation, management, community leaders and people in flood management of the people in Ranong municipality, Ranong province. This was quantitative research using questionnaires. The research samples were 5 administrators, 15 community leaders selected by purposive sampling technique, and 17,904 people in Ranong municipality with 355 samples using Stratified Random Sampling (Krejcie and Morgan, 1970, pp. 608-609). The sample size was selected by simple random sampling. The research tool was a questionnaire. Data were analyzed by frequency, percentage, average, standard deviation, and Using the test ANOVA (One-Way ANOVA). The research results were as follows: 1) level of flood management in Ranong municipality, Ranong province in overall and in each aspect were at a high level, with average scores from high to low, namely participation in operations, participation in receiving benefits, participation in decision making, and participation in the assessments, respectively, and 2) the different roles and responsibilities of flood management affected flood management in terms of participation per decision, participation in operations, participation in receiving benefits and participation in the overall evaluation were different.

**Keywords:**

Flood Management, Participation

## Introduction

Global climate change has resulted in a continual increase in the rate of mudslides, forest flows and flash floods in terms of multiplying violence. The natural disasters would damage the lives and property of many people. It is important to provide accurate information because flooding is a natural disaster that Thailand faces every year. It may be heavy or light, and some years will have to face dozens of times. Time has passed, but Thailand is still not able to cope with the disaster well enough.

The 2011 floods were the worst record ever since the beginning of the year until the end of the year and there were areas of disaster spread in every region of Thailand, especially in the northern and central regions that have caused heavy floods for a long time. Moreover, Bangkok and suburb area is one area that has caused heavy floods in the past 70 years since the flood of Bangkok in 1942. This flood has caused heavy damage in agriculture, industry, economy, society and has resulted in impacting a chain to many other sectors. The area was affected by floods and declared an emergency disaster area from the end of July until November 2011. A total of 65 provinces were affected. 657 people died and 3 people lost. 4,039,459 households are affected, with 13,425,869 people. There were 2,329 houses damaged and 96,833 houses were damaged in some parts. Agricultural area is expected to be damaged by 4,347,826 acres, with 13,961 roads, 777 sewer lines, 982 dams, 142 weirs, 724 bridges, 91,668 acres of shrimp and mussels' ponds, and 13,410,000 livestock (Event record of the great flood, 2011).

The researcher is a government officer under the Department of Disaster Prevention and Mitigation of Thailand, which is an agency principle for overseeing disaster management in Ranong province. The department is the main unit that is close to the people, has knowledge and understanding of the problem obstacles and needs of the people in flooding area very well (Thongchai, 2014).

This organization has an important mission in disaster management which is according to the act on disaster prevention and mitigation, 2007. Therefore, the researcher studied the role of the participation of executives, community leaders and people towards flood management in Ranong municipality area, Ranong province, in order to apply the results of the study to be useful and as a guideline for flood management in Ranong province as well as creating confidence in the safety of life and property of people in the area of Ranong province sustainably.

## Literature Review

In the study of flood management, the researchers studied the concept theories which related to the research framework. Theoretical concepts included concepts of flood crisis management, concepts of public policy, concepts of situational leadership, and people participation in development.

### *Basic Information of Ranong Province*

Ranong is a province of Thailand. It was ranked at 59th in term of area in Thailand, at 77th in term of population in Thailand, and at 70th in term of density in Thailand. Basic information of Ranong province as shown in table 1.

**Table 1: Basic Information of Ranong Province Example**

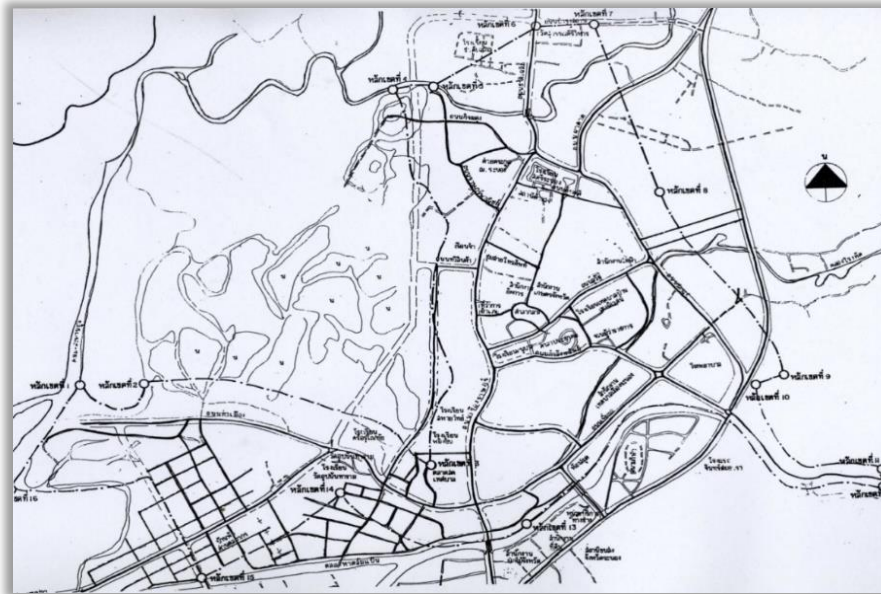
Items	Data
Country	Thailand
Capital	Ranong
Government	
-Governor	Chatuphot Piyamputra (since October 2016)
Area	
Total	3,298 km <sup>2</sup> (1,273 sq mi)
Area rank	Ranked 59th
Population (2018)	
Total	191,868
Density	58/km <sup>2</sup> (150/sq mi)
Website	<a href="http://www.ranong.go.th">www.ranong.go.th</a>

***Geographic of Ranong Province***

Ranong province, Thailand, has a landscape of mostly mountains. The valley is complicated by approximately 86 percentages of the provincial area, with only 14 percentages of the land plains. The east of the area is the Tenasserim mountain range stretching from the north to the south, consisting of Khao Dan, Khao Huaisiad, and Khao Nomsaw, the area is sloping from the east to the Andaman Sea to the west. The area is approximately 69 kilometers along the Andaman coast, consisting of 62 large and small islands, with an average annual rainfall of more than 4,000 millimeters, causing heavy rainfall almost throughout the year. Map of Ranong Municipality was illustrated in figure 1.

***Floods in Ranong Province***

Ranong province is known as the city “eight rainy and four sunny”. It will enter the rainy season between May - November every year which is influenced by the low-pressure groove that moves up and down across combining with the influence of the southwest monsoon that blows through. The area of Ranong province has dense rain and continuous heavy rain which causes flooding and causing damage to life and properties of the government and the people.



**Figure 1: Map of Ranong Municipality Area**

### ***Concepts of Flood Crisis Management***

The main causes of flooding are divided into two main causes: natural flooding and human action flooding. The floods that are caused by natural factors can be divided into 3 cases: 1) water from the sky, which may be rain, snow, droplets or hail, 2) water from reservoirs such as dams, reservoirs, floodgates, irrigated dams, which cause flooding. It is the drainage of excess water in large quantities, and 3) the flooding from the sea support, which caused by rising sea levels can cause directly flooding at the area (Hassaya, 2012).

The principle of preparing for crisis management according to the 2003 Thai Royal Decree on Good Corporate Governance Criteria and Methods is that government agencies can apply lessons in critical situations in the past and adjust their work processes, especially in matters of public service, in order to ensure that the main missions of the government or the important public services can be operated or to provide services continuously without interruption or stop even when faced with crises or various disasters. The approach to preparing for crisis situations consists of 4 steps: 1) building knowledge and understanding for government agencies, 2) preparing government agencies to prepare plans to support the operation of the public service continuously, 3) plan rehearsals and implementation, and 4) promoting sustainable management (Supassorn, 2013).

### ***Concepts of Public Policy***

Public policy is the power to allocate values and distribute them legally for the whole society, People and organizations that can enforce such power legally are governments and agencies of the relevant government. Therefore, the act or not to act is the result of the allocation of social values (David, 1953: 129). Public policy refers to what the government chooses to do or not to do. In the part that the government chooses to do, covering various activities consist of primary and occasional mission activities, including the objectives that the government has chosen to achieve goals well in serving the people (Thomas, 1984: 1). Public policy is an activity in which states choose to act or not, it is the usage of state power to allocate activities in response

to social values. Political leaders, such as political leaders, administration, judiciary, political parties, government institutions, etc. (Sombat, 2010)

### ***Concepts of Situational Leadership***

Leadership is all about influence usage, influencer, the purpose of the influence, characteristic of influence usage, and the results of influence usage (Yukl, 2010). There are also some different meanings that leadership is not just action, but it is a way of life. Leadership is an interactive feature, behavior, ability, process, or a way of life in a person that can influence others, build desire, trust, faith, acceptance, effort, dedication, best use of talent, and help to increase the power of others to achieve the goals (Ratnikorn, 2013).

### ***People Participation in Development***

People participation in Development can be divided into 4 types: 1) participation in decision making which can be an early decision, a decision during the activity, and a decision on the activity, 2) participation in operations which may be in the form of participating in the project, providing support for resources, administrative involvement or cooperation, including participating in the cooperation, 3) participation in receiving benefits which may be of material, personal or social benefit, and 4) participation in assessments which control and audit all activities and represent an adjustment to further participation (Cohen and Uphoff, 1981).

## **Methodology**

### ***Research Objectives***

The purposes of this research were to: 1) study the level of participation in flood management of executives, community leaders and people in Ranong municipality, Ranong province, and 2) compare the roles, participation, management, community leaders and people in flood management of the people in Ranong municipality, Ranong province.

### ***Research Tools***

This was the quantitative research using questionnaire. The questionnaire was developed and constructed by obtained information from the study of concepts and theories and relevant research in order to study the approach for managing the flood crisis in Lam Liang sub-district, Kraburi district, Ranong province. The questionnaire composed of 3 parts as follows Part 1 of the questionnaire collected the demographic information of the research samples, including gender, age, education level, occupation, and position. Part 2 of the questionnaire collected data about participation roles of executives, community leaders and people in Ranong municipality, Ranong province in terms of rating scale. Data were divided into 4 areas as follows: 1) participation in decision making, 2) participation in operations, 3) participation in receiving benefits, and 4) participation in assessments. Part 3 of the questionnaire collected suggestions and comments on the role of participation of executives, community leaders and people towards flood management in Ranong municipality area, Ranong province in term of open questions.

### ***Research Samples***

The samples used were 5 administrators, 15 community leaders selected by purposive sampling technique and 17,904 people in Ranong municipality with 355 of samples using stratified random sampling (Krejcie and Morgan, 1970, pp. 608-609). The sample size was selected by simple random sampling.

**Scope of Variables**

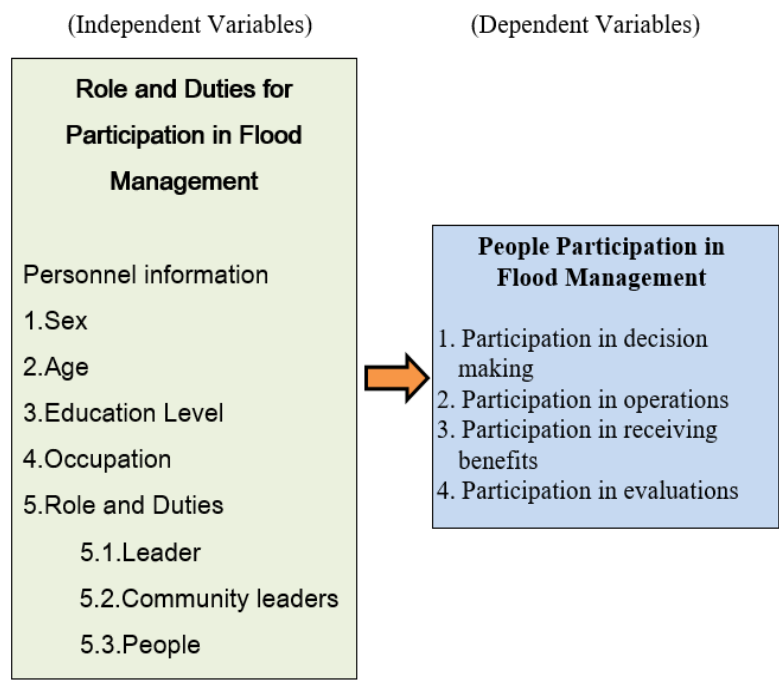
Independent variables are the roles and responsibilities of flood management of the executives, community leaders, and the general public. For dependent Variables, the researcher chose to synthesize according to the concept of Cohen and Uphoff (1981) on flood management, including: 1) participation in decision making, 2) participation in operations, 3) participation in receiving benefits, and 4) participation in assessments.

**Scope of Time**

The study duration was between February and July 2019.

**Research Framework**

The conceptual framework for this study was derived from a review of the literature, which summarized as independent variables, i.e. the roles and duties required to participate in flood management, namely leaders, community leaders and people in Ranong Municipality. The dependent variables were chosen by a synthesis based on the participation of Cohen and Uphoff's contribution to flood management which included as followings: 1) participation in decision aking, 2) participation in operations, 3) participation in receiving benefits, and 4) participation in assessments. Research framework was shown in figure 2.



**Figure 2: Research Framework**

**Data Analysis**

Data was analyzed by frequency, percentage, average, standard deviation and using the test ANOVA (One-Way ANOVA).

Statistics for data analysis in part 1 of the questionnaire, which collected demographic data, were descriptive statistics in terms of frequency and percentage. Statistics for data analysis in part 2 of the questionnaire, which collected flood management roles in Ranong municipality, were descriptive statistics in terms of mean and standard deviation. Content analysis was

applied to use for suggestions and comments about participation roles of executives, community leaders and people towards flood management in Ranong municipality area, in part 3 of the questionnaire.

### ***Hypothesis Testing***

Research hypothesis were tested by analyzing the differences between independent variables and variables according to independent variables such as leaders, community leaders and the general public, and the following variables included participation in decision making, participation in operations, participation in receiving benefits, and participation in evaluations. Assessment analyzed the difference between the averages of more than 2 groups of samples with One Way ANOVA (One Way Analysis of Variance).

## **Findings and Discussions**

### ***Research Findings***

In terms of information background of research samples, data on the personal status of the 355 respondents showed that the most of sample were female, at 56.7 percentages, and male, at 43.3 percentages. The most of samples were between 31-40 years old, 43.3 percentages, and aged between 61 years old and over was the least, at 5.7 percentages. The most of them received elementary education level, at 42.8 percentages. 53.9 percentages of respondents were agriculture. Almost of samples were people, at 94.8 percentages while the administrative level of samples were the least, at 1.8 percentages.

The research results were as follows: 1) Level of flood management in Ranong municipality, Ranong province in overall and in each aspect was at a high level with average scores from high to low, namely participation in operations, at 3.83, participation in receiving benefits, 3.74, participation in decision making, 3.44, and the aspect of participation in the evaluation, 3.35, respectively. 2) The different roles and duties of flood management affecting flood management in terms of participation per decision, regarding participation in operation, participation in receiving benefits and the aspects of participation in the overall evaluation were different.

### ***Discussion***

4.2.1 From the analysis of the level of participation of leaders, community leaders and people towards flood management in Ranong municipality area, Ranong province in 4 aspects, namely participation in decision making, participation in operations, participation in receiving benefits, and participation in the evaluation, it was found that the overall of participation role was at a high level. Flood management in Ranong municipality area has been carried out according to the decentralization and decentralization act for the local government organization in 1999 and in accordance with the disaster prevention and mitigation act.

4.2.1 From the comparative analysis of participation roles of leaders, community leaders and people towards flood management in Ranong municipality area which were classified by roles and duties in disaster management, the general overview and the different aspects are different. When flood occur, the people may think that it is the duty of government agencies to provide assistance. Therefore, they were not aware of the importance of participation in flood management. For this reason, the leaders and communities' leaders should provide opportunities and encourage people to participate in flood management in the area.

## Conclusion

In this research, the researchers proposed guidance for participation of executives, community leaders and people in flood management as the following aspects: 1) in decision, people in the area should be encouraged to participate in decision making and solving various problems in flood management, 2) in operation, sufficient budget should be allocated to prevent and solve flood problems in all areas such as personnel preparation, alarm devices, buildings and places for evacuations to meet the needs of people in the area, 3) in benefits, projects should be selected for various activities in preventing and solving flood problems in accordance with the needs of the people and suitable for the area, and 4) in evaluation, people in the area should be involved in monitoring and assessing the impact of flood management. Therefore, the solution will match the needs of the people in the area. Future study on flood management should focus on the comparison of roles and duties of the agencies in all levels, from local, district, and province.

## Acknowledgement

Financial assistance for this article publication was provided by a scholarship from Suan Sunandha Rajabhat University, Bangkok, Thailand.

## References

- Cohen, J. M., & Uphoff, N. T. (1981). *Rural Development Participation: Concept and Measures for Project Design Implementation and Evaluation*. Ithaca, NY: Rural Development Committee Center for International Studies, Cornell University.
- David, E. (1953). *The Political System: An Inquiry into the State of Political Science*. New York: Knopf.
- Department of Disaster Prevention and Mitigation, Ministry of Interior, Thailand. (2007). *Prevention and Mitigation Act 2007*. Bangkok, Thailand.
- Department of Disaster Prevention and Mitigation, Ministry of Interior, Thailand. (2010). *Prevention and Mitigation Act 2010-2014: Chapter on Water and Flood Management*. Bangkok, Thailand.
- Department of Disaster Prevention and Mitigation, Ministry of Interior, Thailand. (2015). *National Disaster Prevention and Mitigation Plan 2015*. Bangkok, Thailand.
- Dye, T. R. (1998). *Understanding Public Policy* (9th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Easton, D. (1965). *A Framework for Political Analysis*. Englewood Cliffs, NJ: Prentice-Hall.
- Hassaya, T. (2012). *National Guidelines for Sustainable Disaster Management: A Case of Flood Studies*. Bangkok: Center for Strategic Studies, National Defense Studies Institute.
- Krejcie, R. V., & Morgan, D. E. (1970). Determining Sample Size for Research Activities. *Journal Education and Psychological Measurement*, 30(3), 608-609.
- Ranong Province. (2011). *Event record of the great flood*. Received March 3, 2019, from <http://www.thaiwater.net/current/flood54.html>
- Ranong Province. (2018). *Specific Plan to Prevent and Solve Flood, Storm, and Mudslide Problems in Ranong Province 2018*. Ranong: Ranong Disaster Prevention and Mitigation Office.
- Ranong Town Municipality. (2019). *Three-year Development Plan: 2017-2019*. Ranong: Ranong Municipality.
- Ratnikorn, J. (2013). *Leadership: Theories, Research, and Approaches to Development*. Bangkok: Faculty of Social Sciences, Kasetsart University.



- Sombat, T. (2010). *Public Policy: Concept, Analysis, and Process*. Bangkok: Faculty of Public Administration, National Institute of Development Administration.
- Supassorn, T. (2013). *Principle of Preparation for Management in a Crisis in Accordance with the Royal Decree on Principles and Procedures for Good National Administration 2003*.
- Thaitad, M., Walaiporn, C., & Wilailak, R. (2015). *Sustainable Flood Management of Bueng Cham Or Sub-district Administration Organization, Nong Suea District, Pathum Thani Province*.
- Thongchai, S. (2014). *Information Technology Application for Knowledge Management in Medium-Size Business*. *International Journal of Industrial and System Engineering*, 8(4), 942-947.
- Thomas, R. D. (1984). *Understanding Public Policy (5th ed.)*. Englewood Cliffs. New Jersey: Prentice-Hall.
- Yukl, G. (2010). *Leadership in Organizations*. U