

## **Legal Issues Concerning Seashore Erosion Management in Thailand**

Udomsak Sinthipong  
School of Law, Bangkok University, Thailand

— *Review of* —  
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### **ABSTRACT**

The purpose of this research is to study legal issues concerning the management of seashore erosion. Three issues to be elaborated; (i) Legal status of eroded seashore. Seashore land, which firstly belonged to private, will turn, after reclaimed by state, to be public asset. Extended seashore by state is also fully entitled, as the same manner, to state. (ii) Relevant institutions, especially from public ones. Public sector, if empowered, may expropriate private lands in order to comfortably deal with erosions. (iii) Public participation. In particular, related provisions of the Constitution of Thailand provide for rights and obligations of community and people to manage the eroded seashore, as underlined in Sections 66-67, creating direct role of participation upon stakeholders.

This research proposes enactment of policy law as a pertinent framework to design national policies on coastal management. The law should contain substantive visions in dealing with the problems, especially coastal management compatible with coastal dynamism employing engineering technique. It should also include monitoring coastal activities, setting backline, knowledge management regarding coastal dynamism, inspiring novelty and wisdom through integrated manner. Moreover, institutions and mechanisms for coastal management activities should also be established. Financial support, inevitably, is to be created. Public participation should be directly and indirectly full-fledged. Enactment of regulations is highly required to endow public sectors, communities, stakeholders, to express opinions. There should be also central authority who determines standards and measures for such reclamation, to be referred as best practice.

Keywords: Coastal Zone Management, Seashore Erosion, People Participation, Policy Law

### **Introduction**

Thailand has faced with the loss of coastal areas from erosion. This is due to the natural influences which are severe storms and sea level rise because of global warming. Also, the human acts as an accelerator such problem such as creating dams which obstruct sand and sediment from flowing into coastline, dredging near the coast that makes the soil sliding down into the coast, excessive using of groundwater in the seashore areas which causes the ground collapsed, and creating obstacles that change tide direction and cause severe erosion in another direction. (Coastal Zone and Marine Resources Department, 2014, 15) Moreover, the seashore ecosystems, which secure the seashore and reduce the strength of waves, such as mangrove forests, were destroyed so the seashore is going to erode easily.

Seashore Erosion impacts on using land and coastal resources. Also, it affects legal area whether or not the law has a mechanism to deal with such issues appropriately; moreover, this is able to affect the international legal position in relation to prescribing the territorial sea

because Thai seashore can be change. (Convention on the Territorial Sea and the Contiguous Zone 1958, Article 24.2) This issue has been concerned, especially, where the seashore of Thailand attach with the border of a neighbouring country because Thailand and neighbouring countries have not been divided the territorial sea divisibly, especially in Andaman Sea and the Gulf of Thailand. Seashore erosion in Thailand decreases the coastal areas. In this case, if such areas have not reconciled with the neighbours, Thailand will be disadvantage in negotiations if disputed country is not a party in the United Nations Convention on the Law of the Sea.

## **Research Results**

### **1. Ownership and legal rights of private sector over the seashore where was eroded.**

#### **1.1 Before the seashore erosion**

Legal rights and ownership of seashore land of private sector, both in Thailand and United Kingdom, are similar. That is state owns the shore, including beaches, mangroves, and under sea used for public benefit. On the other hand, the private sector owns coast. Under the Civil and Commercial Code of Thailand, the law has divided the coastal land based on the use which are the land that has public benefit is owned by the public sector such as beaches, wetlands, and land belonging to the state for public interest (e.g. national parks, and wildlife sanctuaries) and other lands belong to private sector under the Land Code. (Civil and Commercial Code, Section 1304,1309, Land Code, Section 2, 5, 6) The United States law allows private sector to have ownership over beaches where are not able to be flooded by seawater but this area is evicted that the owner must allow the public to access or use as public transit.

Classification of coastal land in Thailand bases on the purpose of land use, such as for people use. According to the laws of the United States and the United Kingdom, both countries hold the physical characteristics of the land. It can be said that the land where is flooded by seawater is owned by the public sector for public use; and, the land where are not able to be flooded by seawater and are outside the state reserved for special handling is treated as private land. (Crown Estate Act of 1961) The laws of the two countries also determine the distance of space to be a consideration of the classification of land. This is the basis for the determination mechanism for the management, such as a specific area for management (Zoning) or borderline retraction (Setback Line) to control development in vulnerable areas or threatened area by seashore erosion.

#### **1.2 After the seashore erosion**

Under the Thai law, the original owner of private land has exclusive right against the seashore erosion. If the owner opposes successfully, such land will still be owned by such owner, not public domain of state. (Supreme Court Case No 341-350/2507, 353-360/2507, 2589/2520, 3093/2523, 4782/2533, 2744/2541, 2744/2546) Notwithstanding, if the owner fail, such land where was eroded to the sea will belong to the public domain of state for public use. (Civil and Commercial Code, Section 1304 (2), Supreme Court Case No 1166-1167/2497, 1532/2509, 2199/2515, 779/2536) Similarly, this is close to the laws of the United Kingdom. The UK law considers land change. If the land was eroded gradually, the ownership of the land shall cease and such land will also belong to the public domain of state. However, if there is a gradual accumulation of land, private owner of such increasable land has ownership of such land. (Coast Protection Act of 1949, Section 49, 50, 51) Regarding the

laws of Singapore, if the transformation of seashore land is caused by natural or human action, the increasable seashore land belongs to the state sector. (Foreshores Act of 1985, Section 7(2)) According to the US law, the law focus on the difference between the right to trespass into the sea in order to compensate the damage from the seashore erosion and with no right to trespass into the sea although it is possible to protect properties because a person shall not be entitled to prevent the decrease or increase of their land on others damage. From the first thought, private landowners are entitled to act on their land destroyed by erosion by asking for permission from the US Army Corps of Engineer and still have ownership of the restorable land. (Coastal Zone Management Act of 1972) According to the second thought, on the other hand, private landowners have no right to take any action on their own land in relation to the seashore erosion; and, if the state is able to restore the land from the erosion, such restorable land becomes the property of the state because the private landowners have already lost the ownership of the land and such restorable land is operated by the state.

## **2. The limit of authority of the government and the state agencies to manage private seashore eroded.**

Under the laws of Thailand, organizations involved in the management of coastal land have the authority to manage the coastal land where is the public use both before and after the erosion. If the land is privately owned, the state has the legal authority to expropriate such land both before and after the erosion. (Enhancement and Conservation of National Environmental Quality Act B.E. 2535) In relation to the law of the Netherlands, it stated that “the state is directly responsible to prevent movement of the beach not to move into the area of dry land whatever the cause of the flood waters or seashore erosion and whether the land is public or private land.” So, the main responsible organization managing the seashore erosion is the state organization. According to the laws of Singapore, the organization has centralized management to the federal government. The federal government is responsible for national policy on the management of the coast especially in the matter of land reclamation and the national committee, which was established by law, including HDB, JTC, PSA and other involved organizations. Also, the government serves the coastal reclamation projects and allocate the land for the benefit of the state and people. In case of Singapore's coastal reclamation, a state can exercise the power to expropriate private land for the land reclamation. The state restricts private sector to claim rights regarding the coastal reclamation projects.

The management of seashore erosion should be process in the national agenda because it is the damage related to the loss of land that affects territory. Therefore, it is urgent national agenda; and, it is the duty of the state to take steps to resolve the issue that could affect the rights of private property and the way of living of people.

## **3. The legal issues regarding the mechanisms of state and government agencies to resolve and manage the seashore and the problem in relation to law enforcement and authority of the state and state agencies.**

The seashore management of Thailand has involved with several government sectors including the Department of Land, Marine Department and the Department of Marine and Coastal as a result of the legal structure which is a separated form. These organizations have their own authority under significant laws; so, it causes the overlapping of tasks and responsibilities in the management of coastal land. Under the law of Netherlands, the law

requires only one national government organization to be responsible for such matters; such organization is The Ministry of Public Works, Transportation and Water Management or VenW. It is not a separate section that several ministries take responsibility in the land management and the seashore erosion. According to the US, there are several organizations to response for the seashore management, both at national level and at state level, including the conservation organizations and the organization in relation to management and utilization of seashore. These organizations support and cooperate in the management of coastal land, such as the National Oceanic and Atmospheric Administration or NOAA, which has the authority to oversee, restore and manage sea, ocean and seashore, cooperates with California Coastal Commission or CCC, which has the authority to manage and protect the coast and coastal resources of the state of California. Regarding Singapore, there is no problem about law enforcement and government authority because Singapore clearly divides responsible divisions to manage the coastal reclamation projects. The responsible divisions shall be determined by considering the final purpose whether each seashore is used for. Also, Urban Redevelopment Authority or URA of Singapore acts as a central organization that is responsible for taking care of the coastal erosion. (Foreshore Act of 1985, Section 4(2)) Whoever wants to install a device used to prevent coastal erosion, the applicant must ask for permission from this organization. Another problem of the management of coastal land is the management of local organizations. It can be said that there is confusion between the former organization and the local organization; so, it causes a gap of power in the management of local resources. This issue arises from incomplete decentralization to local communities of the government.

Seashore management should be integrated. It is need for policies and legal instruments which is consistency by mobilizing of wisdom, knowledge and cooperation from the national level down to the local community. At the nation level, the national Constitution has laid down the decentralization to the local community; the local government authority, the local community and the local people have the rights in management and maintenance the local resources and the local environment. At the local level, the Constitution has established the policy of decentralization to local community for causing participation of local people in management and maintenance of natural resources, the environment and the matters that are able to impact on the local way of life.

#### **4. The rights and the duties under the laws regarding the seashore erosion management of community and people**

The Constitution of Thailand affirms the right of individuals to engage with states and communities in the conservation, maintenance and benefit from natural resources. The management of the seashore is a part of such right. Also, the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 assures the right to attend a public hearing and comment on the environment limitedly. The Act affirms only the rights of organization registered as a private environment organization. (Section 7, 8) Other organizations and the general public have no such rights in any way; they have only the right to receive information from the government related to the environment. Considering the scope of the right to a private environment organization, it has been seen that there are several limitations. In other words, a private environment organization has only the right to propose opinion to the government; such organization has no right to make decision.

While the law of the Netherlands approved the participation of the people from 3 features which are the participation of the public under the Water Board Act of 1992 which allows people to participate indirectly through elected representatives from their local to be a member of Water Board, the participation in expressing their opinions regarding the orders of the government under the General Administrative Act of 1995, and the participation of the public and stakeholder in stipulating water policies and water management plans since the first stages. The last feature is similar to the CPA law of the United Kingdom. The stakeholder is able to protect the coast from drafting plan and presenting to the public; furthermore, the public can object to the draft plan rationally and comment in the referendum. Moreover, when the plan has been confirmed by those involved, private landowners can ask for a work in accordance with such plan. The CPA allows people to take part in the protection of the coast directly. In the US, the laws have recognized the right of stakeholder to engage in the management of seashore. It is the basic elements that appear in the law and the federal, state and local governments have endorsed. Also, it has implemented systematically. For example, the Coastal Zone Management Act of 1972 and the California Coastal Act of 1977 give people the right to be involved in every step of the law; that is, the law sets out the details, conditions and processes of the participation.

##### **5. How can the mechanism called "environmental protection areas" under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 resolve the seashore erosion?**

According to the laws of Thailand, the mechanism called "environmental protection areas" is suitable to be applied in the case of protecting erosion. However, this mechanism cannot be used to restore the areas where were already eroded.

Managing the seashore, it is required specific measures, such as setback line or buffer zone. That means, a mangrove forest should locate on the front line and some occupations should be prohibited, such as shrimp farming which near the buffer zone. Furthermore, it should limit the type of land use which may be linked to the planning laws. The problems are whether or not there is the mechanism or authority to dictate effectively and whether the objectives of the environmental protection area contravene the principles of land use or not because if it is a protected area, it may not be used for a proper full potential.

The environmental protection areas are able to be announced in the private land. However, the management of such areas is difficult because private ownership is still available; so, this mechanism is not appropriate to apply to the recovery and utilization of the areas where were eroded. Moreover, the environmental protection areas have declared in different areas throughout the country. Notwithstanding, there are issues in relation to the standard in practice what organization is going to take responsibility and what mechanism should be used because the organization being responsible often lacks of knowledge and expertise in the management, especially the seashore management which requires knowledge and technical expertise. The organization under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 usually assigns works to the governor in the area who lack of knowledge and expertise in the management. There should be a mechanism in local level in order to manage such matter, such as coastal communities and etc.

Corporate power under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 is not sufficient to manage the seashore issues entirely. The

mechanisms and existing power only solve the partial problems. In case of the government had already approved the long term construction under other laws then the environmental protection area was declared in such area, the construction is still continuing. So, the mechanism called the environmental protection area is ineffective in managing the seashore.

## Recommendations

This research proposes to develop a legislative policy in order to support the policy framework for managing the national seashore erosion. It, also, intends to ensure the sustainability of the sanction in the policy which will not be influenced by the political situation. Moreover, it is used as a tool to monitor the use of the power of the executive branch. The proposed principles are as follows:

1. To establish a clear national policy on how to implement the seashore erosion management that conform to a natural process for solving the problems by operating in conjunction with the mechanical engineering in some areas such as the military area where is a strategic imperative;
2. To balance of the seashore development. The processes of the seashore development are as follows:
  - 2.1 To control activities in coastal areas to suit the characteristics of the area by using financial measures and tax mechanisms which are environmentally friendly to manage the seashore;
  - 2.2 To specify the management and development of seashore through government, private organization, community and people; and, to support measures that conform to a natural process;
  - 2.3 To define setback line regulation both the fixed boundary and the flexible boundary in order to define areas of management;
3. To manage knowledge of coastal processes, motivate people to create innovation and intellect, and share knowledge with various target groups;
4. To set up coordinate organizations which share, collect, consult and evaluate the local performance measurement;
5. To specify mechanisms for managing seashore. Such mechanisms are as follows:
  - 5.1 To allocate land that has been reclaimed from seashore erosion and land reclamation in order to use as residence, agriculture, tourism and recreation through the power of the Minister concerned;
  - 5.2 To define plans by stakeholder and government;
  - 5.3 To implement the integrated seashore management to projects of the coastal provinces on the willingness of the participants, namely the national seashore management project and the national estuary project;
6. To set up a standard under a prototype of the mission, authority, techniques and practices by integrating knowledge and practices from government, private sectors and communities in order to be guidelines and standards throughout the country. The principles are as follows:
  - 6.1 The soft solutions which are adding sand to the beach, reclaiming mud to the mud area, making sand traps made of wood, sticking bamboo or hardwood in order to trap sediment, and growing mangrove forests.
  - 6.2 The hard solutions which are to create headland to control water flow and to make traps at mouth of a canal.

- 6.3 The integrated solutions which are to bury cement blocks and fill sand, including creating the beach by a combination method.

## REFERENCES

- [1] Chia Lin Sien and Chou Loke Ming. (1991). "Urban Coastal Area Management: The Experience of Singapore." Manila: ASEAN.
- [2] Clark, J.R. (1997). "Coastal zone management for the new century." Ocean and Coastal Management, 37(2), pp. 191-216.
- [3] Coastal Conservation Department. (1990). Coastal Zone Management Plan. Retrieved October 15, 2016 from [http://pdf.usaid.gov/pdf\\_docs/PNABQ543.pdf](http://pdf.usaid.gov/pdf_docs/PNABQ543.pdf).
- i. [4] Coastal Zone and Marine Resources Department. (2014). "Strategy for Coastal Protection and Management." Bangkok, pp. 14-16.
- [5] Dennis J. (1991). "Shoreline Setback Regulations and the Taking Analysis." University of Hawaii Law Review: p. 32.
- [6] Duxbury, J., & Dickinson, S. (2007). "Principle for sustainable governance of the coastal zone : In the context of coastal disasters." Ecological Economics, 63(2007), pp. 319-330.
- [7] Erik Mostert, Integrated Water Resources Management in The Netherlands: How Concepts Function, Journal of Contemporary Water Resource & Education: Issue 135 (2006): pp. 19-27.
- [8] Fleming, C.A. (1996), "Coastal Management: Putting Policy into Practice." Thomas Telford Publishing, pp 96-98.
- [9] Food and Agriculture Organization of the United Nation (2006). "Integrated coastal management law : Establish and strengthening national legal frameworks for integrated coastal management." Rome : FAO Legal Office.
- [10] Hanak, E., & Moreno, G. (2008). "California Coastal Management with a Changing Climate." Retrieved October 20, 2016, from [http://www.ppic.org/content/pubs/report/R\\_1108GMR.pdf](http://www.ppic.org/content/pubs/report/R_1108GMR.pdf).
- [11] Houlahan, J.M. (1989). "Comparison of state construction setbacks to manage development in coastal hazard areas." Coastal Management, 17, p. 221.
- [12] Institute for Government Research. (2007). "The U.S. Reclamation Service: Its History, Activities And Organization." New York: D. Appleton Co.
- i. [13] James G. (1998). "Rising Seas, Coastal Erosion, and the Taking Clause: How to Save Wetlands and Beaches without Hurting Property Owners." Maryland Law Review: p. 52.
- [14] James L. (2005). "The Public Participation Handbook: Making Better Decisions Through Citizen Involvement." Jossey-Bass Publishing, San Francisco.
- [15] Jelgersma S., Zijp, Vander M. and Brinkman R. (1993). "Sea level rise and the coastal lowlands in the developing world." Journal of Coastal Research: pp. 958-972.
- i. [16] Randall, M. & De Boer, H. (2012). "Coastline Construction Restrictions," OLR Research Report." Retrieved October 19, 2016, from <https://www.cga.ct.gov/2012/rpt/2012-R-0046.htm>.
- [17] Robert J. (2006). "Designed for Dry Feet-Flood Protection and Land Reclamation in the Netherlands." The American Society of Civil Engineers.
- [18] Thorne, C.R., Evans E. and Edmund Penning-Rowell. (2007). "Future Flooding and Coastal Erosion risks." Thomas Telford Publishing.

- [19] Tommy Koh and Jolene Lin, (2006). "The Land Reclamation Case: Thoughts and Reflections." Singapore Year Book of International Law, pp. 1-7.
- [20] Wendel, H. (1991). "Restoration as the Economically Efficient Remedy for Damage to Publicly Owned Natural Resources." Columbia Law Review: vol. 91: 430: pp. 440-441.