CONSERVATION AND ENVIRONMENTAL MANAGEMENT OF THE COASTAL GULF OF THAILAND IN RAYONG PROVINCE

Mayurapas Patcharasappaisan*, Koblap Areesrisom**, Saowapark Krajangyooth*** Division of Resources Management and Development, Faculty of Agricultural Production, Maejo University, Chiangmai, Thailand 50290

Introduction

Statement and Significance of the Problem

The rapid development of the Thai economy in recent years As a result, Thailand is one of the leading economies and development partners in the ASEAN region. However, the country's economic development still relies on natural resources and the environment as the fundamental factor of production. And as a result of rapid economic development, urban communities expand. There is a growing industry and sector in the conservation and environmental management of the Gulf of Thailand in Rayong. As a result, the use of natural resources and the environment exceeds the capacity of the ecosystem. Evident from the lack of abundant natural resources. The quality of the environment continues to deteriorate. And cause an impact on the well-being of the people. coastal area It is of great importance to the society and economy of the country. Coastal land offers an environment with many valuable natural resources such as natural gas, water, minerals, food, beaches and beautiful scenery. It is also an important area of the transport network that is the gateway to the country's economy. Therefore, the coastal area is an economic base that produces various products. There are industrial factories, commercial sites and tourist attractions. but at the same time Coastal areas are also ecologically complex and vulnerable due to their susceptibility to destruction by both natural disasters and human activities. Therefore, it is necessary to be very careful in developing it without damaging existing conditions, such as exploiting or overusing coastal areas. or cause environmental problems and pollution The government should therefore focus on the implementation of policies, measures and management mechanisms based on sustainable development principles. By creating a balance of development in 3 dimensions, namely the economic dimension, the social dimension, and the environment dimension. Emphasis on economic growth at an appropriate level, stability, income distribution, income distribution, human resource development. and build a solid base of natural resources and environmental quality (Office of Natural Resources and Environmental Policy and Planning, 25 6 5)

The coast of the Gulf of Thailand, Rayong province, used to have abundant marine life as well as a breeding ground. And is the habitat of young aquatic animals. There are many species of aquatic animals. As a result, the Gulf of Thailand is an important fishing area with a high concentration of fishermen. The model of artisanal fishing that catches enough fish is very different from that of commercial fishing, relying only on small boats and various types of fishing equipment rotated according to the species. Methods and selection of tools of the local fishermen will consider the conditions or characteristics of marine animals and coastal areas in each area. Due to the lack of modern fishing facilities such as commercial fishing boat Local fishermen therefore rely on comprehensive knowledge. such as knowledge of marine animals climate and the nature of the sea design of fishing equipment suitable for aquatic species

The coast of the Gulf of Thailand, Rayong province, used to have abundant marine life as well as a breeding ground. And is the habitat of young aquatic animals. There are many species of aquatic animals. As a result, the Gulf of Thailand is an important fishing area with a high concentration of fishermen. The model of artisanal fishing that catches enough fish is very different from that of commercial fishing. By relying only on small boats and various types of fishing equipment circulating according to the species of aquatic animals Methods and selection of tools of the local fishermen will consider the conditions or characteristics of marine animals and coastal areas in each area. Due to the lack of modern fishing facilities such as commercial fishing boats. Local fishermen therefore rely on comprehensive knowledge such as knowledge of marine animals. climate and the nature of the sea design of fishing gear suitable for aquatic species

The main problem in developing coastal areas is the degradation of coastal land and coastal resources. Including environmental degradation through wasteful use of resources and development-related problems occurring in coastal areas with many negative impacts on natural resources and environment. Many important coastal resources such as mangrove forests, beach lands, coral reefs, seagrasses and coastal waters are now exposed. Has been destroyed and deteriorated to the point that it requires urgent attention and management. Department of Marine and Coastal Resources The problem of waste released from houses and accommodation areas for villagers living along the coast of the Gulf of Thailand in Rayong Province Buildings and fences have been built along the beach. Sedimentation of soil and rocks from past mining operations. Sand mining on or near the beach Including the construction of various current events and oil leaks from ships Both contribute to the deterioration of beach conditions. Beach erosion and coral reef destruction will accelerate the degradation of beach land. (Department of Marine and Coastal Resources, 2019)

from the foregoing The researchers concluded that environmental conservation and management in the Gulf of Thailand in Rayong Province It must be used inappropriately, cost-effectively, and conserved and managed in other areas such as the development of agroindustry, tourism, including the expansion of the community In practice, government policies have failed to do much to help the coastal environment recover. Due to the complex relationships and interconnections of policies related to indigenous fisheries and coastal environments, with many responsible agencies. For this reason, the researcher is interested in studying the conservation and environmental management of the Gulf of Thailand in Rayong Province.

Research Question

- 1. State of environmental conservation and management problems in the Gulf of Thailand in Rayong Province. At present, what are the problems that need to be solved quickly? and maintain it sustainably
- 2. Environmental Conservation and Management of the Gulf of Thailand in Rayong Province What should I start with? And proceed in any direction that is appropriate and suitable in the future
- 3. Models and new knowledge on environmental conservation and management of the Gulf of Thailand in Rayong Province. How should it be organized to suit the current and future situations?

Research Objective

- 1. To study the problem Environmental Conservation and Management of the Gulf of Thailand in Rayong Province.
- 2. To study and analyze environmental conservation and management of the Gulf of Thailand in Rayong Province.
- 3. To propose guidelines and create new forms and knowledge in Environmental Conservation and Management of the Gulf of Thailand in Rayong Province.

Research Hypothesis

- 1. Different individual factors affect the conservation and environmental management of the Gulf of Thailand in Rayong Province differently.
- 2. The satisfaction of the villagers living in the Gulf of Thailand area in Rayong Province towards the environmental conservation and management of the Gulf of Thailand in Rayong Province were different in each aspect.

Scope of the Study

- 1. Population Area Boundaries The target groups used in the research were divided into 2 groups:
- 1) Manager for Environmental Conservation and Management of the Gulf of Thailand in Rayong Province 5 people by using in - depth interview tools (Depth Interview) and questionnaires (Questionnaires)
- 2) Villagers living on the coast of the Gulf of Thailand, Rayong Province, aged 18 more but not more than 55 Year Number according to the population census Rayong Province Number 2, 236, 203 persons (Registration Office, Department of Provincial Administration, Ministry of Interior Data as of September 16, 2022) The researcher has determined the size of the sample group according to the stratified random method in order to collect data from the sample group covering all provinces. The researcher defined a sample group of 400 people.

2. Content Scope

- 1) Personal factors include gender, age, status and education.
- 2) Social and economic factors, including occupation, monthly income family roles Role in environmental conservation and management of the Gulf of Thailand in Rayong Province and membership in social groups
- 3) Environmental factors in environmental conservation and management of the Gulf of Thailand in Rayong Province, including news perception on environmental conservation and management of the Gulf of Thailand in Rayong Province, culture on environmental conservation and management of the Gulf of Thailand in Rayong Province, environment conservation and management Environment of the Gulf of Thailand in Rayong Province and Development of Environmental Conservation and Management of the Gulf of Thailand in Rayong Province.
- 3. Term Scope Schedule for data collection and synthesis analysis during January -September 2023

Significance of the study

- 1.6.1 Aware of the state of conservation and environmental management problems of the Gulf of Thailand in Rayong Province.
- 1.6.2 Acknowledging the results of the analysis of conservation and environmental management of the Gulf of Thailand in Rayong Province.
- 1.6.3 got a suggestion Guidelines and creation of new models and knowledge in environmental conservation and management of the Gulf of Thailand in Rayong Province.
 - 1.6.4 The results of the study have been extended to other coastal provinces.

Definition of term

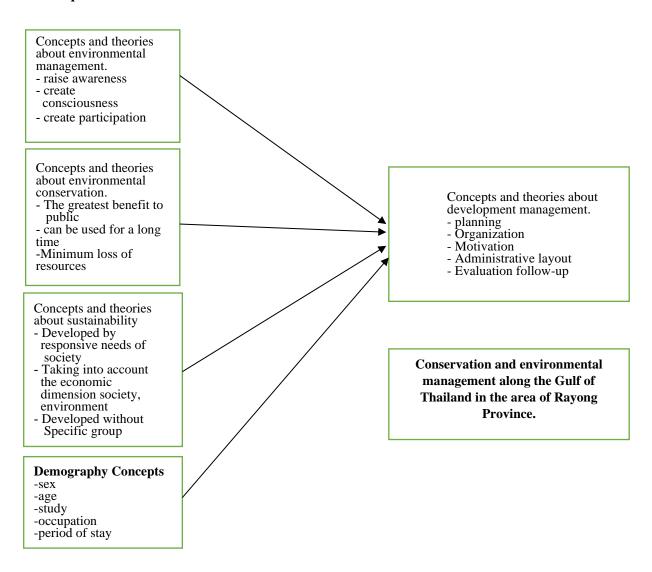
1. conservation Refers to the wise use of natural resources and the environment. and used appropriately for maximum benefit to human beings By avoiding the least negative impact on the environment. Proper and efficient process conservation must cover both environmental and environmental degradation problems. natural resources to deteriorate For Conservation and Management of the Gulf of Thailand Environment in Rayong Province.

- 2. Management means having a group of people in an organization work together to achieve the common objectives of the organization. This includes organizational planning, management, staffing. Leads or directs and supervises organizations or efforts to achieve common objectives in environmental conservation and management of the Gulf of Thailand in Rayong Province.
- 3. Rayong Province means the eastern part of Thailand that the researcher used to study Environmental Conservation and Management in the Gulf of Thailand in Rayong Province It is the province with the highest per capita income in the country and the total product of the province is ranked 2nd in Thailand. It is a tourist city with many famous tourist attractions. And is a very important city in the economy. both in the industry travel and agriculture
- 4. Coastal environment in the Gulf of Thailand, Rayong Province, means things that exist or occur naturally in marine and coastal areas. including coastal wetlands, canals, lagoons, lagoons and estuaries with areas exposed to the sea or its influence, such as mangrove forests, beach forests, beaches, seashores, islands, seagrasses, corals, tall shellfish, marine flora and fauna Man-made for the benefit of marine and coastal ecosystems such as artificial coral reefs and preventing coastal erosion of the environmental conservation and management of the Gulf of Thailand in Rayong Province.

Theoretical concepts used in research

- 1. The 12th National Economic and Social Development Plan (B.E. 2566-2570)
- 2. Environmental Quality Management Plan B.E. 2566 2570
- 3 Laws and strategies related to the management of marine and coastal resources
- 4. Marine and coastal resources management plan
- 5. Theoretical concepts of development management
- 6. Concept of sustainable development
- 7. Theoretical concepts of environmental management
- 8. Theoretical concepts about environmental conservation
- 9. Sustainable Development Goals: SDGs
- 10. International Conventions and Agreements Related to Administration natural resources and environment
 - 11. Participation Concept
 - 12. Theoretical concepts of demographics
 - 13. Related Research
 - 14. Conceptual Framework

Conceptual Framework



Bibliography

Kamonthip Kongprasertamorn, (2021). Knowledge of natural resources. Bangkok: Sirindhorn Anthropological Center.

Pollution Control Department (2004.). Preparation of water quality standards. Retrieved December 1, 2022. From http://www.pcd.go.th/info_serv/reg_std_water05.html.

Pollution Control Department Ministry of Natural Resources and Environment . (2009). Water Quality Standards. Retrieved December 1, 2022. from http://www.pcd.go.th/info_serv/reg_std_water02.html

Pollution Control Department. (2002). Authority. Retrieved December 1, 2022. from http://www.pcd.go.th/ about/ab_mission.html

Pollution Control Department. (2004). Simple Environmental Quality Monitoring Guide: Water Quality. Retrieved December 1, 2022. From http://infofile.pcd.go.th/water/inspect water.pdf? CFID=2151222&CFTOKEN=13969418.

- Department of Marine and Coastal Resources, (2019). Coastal areas. Retrieved December 1, 2022. From http://www.dmcr.go.th/marinecenter/coastalzone.php. (12/9/2022)
- Department of Environmental Quality Promotion. (1992). Enhancement and Conservation of National Environmental Quality Act 1992 and related laws. Bangkok: Department of Environmental Quality Promotion. Ministry of Science and Technology
- Department of Environmental Quality Promotion. (1997). Environmental conservation. Bangkok: Ministry of Science, Technology and Environment.
- Department of Environmental Quality Promotion. (2009). Environmental Situation in Thailand 2009. Bangkok: Environmental Information Center. Ministry of Natural Resources and Environment
- Kannika Sirisingha. (2001). Chemistry of Water: Sewage and Analysis. Bangkok: Faculty of Public Health. Mahidol University
- Kobkarn Wongwisit (2013). Language skills for communication. Bangkok: Odeon Store
- Ketkanok Boonphet, Uthai Prinyasuthinan, Kasetchai and Heem (2019). Management of the Khlong Na Thap Coastal Fishing Boat Association with fun food security for community sustainability in Na Thap Subdistrict, Cha District. Na Songkhla Province. Journal of Silpakorn University. 39 (4), 155-173.
- Kasem Chankaew. (1986). Environmental Science . . Bangkok : Siamese typography.
- Kasem Chankaew. (1997). Environmental Science. (3rd edition). Bangkok: Kasetsart University.
- Kasem Chankaew. (2004). Integrated environmental management. 2nd edition . Bangkok: Kasetsart University Press.
- Kasem Chankaew. (2013). Integrated environmental management. 3rd edition, Bangkok. Kasetsart University Press.
- environment committee Technology and life. (2010). Environment, Technology and Life, 10th edition, Bangkok: Kasetsart University.
- Science, Technology, Natural Resources and Environment Working Group National Economic and Social Advisory Council. (2014). Convention on Natural Resources and the Environment. Bangkok: Duean Oct Company Limited
- Tin Prachyaprut (1996). Documentation for Teaching Behavior in Organization Series. Bangkok: Sukhothai Thammathirat Open University Press.
- Thitaya Suwanachat. (1984). Sociology. Bangkok: Thai Wattana Panich.
- Thongchai Santiwong. (1997). Consumer Behavior in Marketing. Bangkok: Thai Wattana Panich.
- Thongchai Seefah. (2010). Environmental Impact Assessment and Coastal Area Management: Coastal Area, Phetchaburi Province. Science and Technology Journal. 18 (1), 51-60.
- Niwat Ruangkaew. (1994). Conservation of natural resources and the environment. Bangkok: Green fence V.B. Book Center.
- Buchita Sangkaew, Chayathat Supachalasai, Sarunyu Yantsap. (2021). Policy Development Model for Deep Sea Port Management for Sustainable Marine and Coastal Environment: Case Study of Laem Chabang Deep Sea Port. Chonburi Province. Journal of Political Science and Public Administration. 13 (1), 119-146.
- Announcement of the Ministry of Science, Technology and Environment, No. 3 (B.E. 2539) Re: Setting standards for controlling the discharge of industrial factories and industrial estates, dated January 3, 1996. Announced in the Government Gazette, Volume 113, Section 13 D., dated February 13, 1996.
- Prayoon Wongchantra. (2012). Environmental Science. Mahasarakham: Mahasarakham University Press

- Preeya Meebun, Pongchai Atikomrattanakul. (2018). Development of Coastal Transportation Systems in the Gulf of Thailand by Delphi Technique. Journal of Development Administration. 58 (3), 197-219.
- Leader Institute of Hydrological and Agricultural Informatics. (2011). Annual Report 2011. Bangkok: Hydro and Agricultural Informatics Institute (Public Organization).
- Pornphin sparks peace. (2007). Personal characteristics, values, tourism resources. and tourism behavior in the People's Republic of China of villagers living along the coast of the Gulf of Thailand in Rayong Province. Thai people in Bangkok. Independent research, B.B.A. (Marketing). Bangkok: Graduate School. Srinakharinwirot University.
- Paiboon Termsomket, Boon-Ea Boonrit, Thinphan Nakata. (2017). Environmental Conservation of the Gulf of Thailand Coastal Area in Rayong Province: A Case Study of Rayong and Chanthaburi Provinces. Kasem Bundit Journal. 18 (1), 97-105.
- Passinee Piempongsarn. (2005). Environmental Studies, Teaching Guidelines, Student-Centered Learning Content . Bangkok: Chulalongkorn University.
- Manat Suwan. (2006). Guidelines and tourism management project in the area under responsibility of SAO and sub-district councils. Bangkok: Tourism Authority of Thailand.
- Chaipattana Foundation (2014). The meaning of the sufficiency economy. Retrieved December 1, 2022. From http://www.chaipat.or.th/site_content/34-13/3579-2010-10-08-05-24-39.html
- Constitution of the Kingdom of Thailand B.E. 2560
- Reerakorn Gajaseni. (2008). Man and the environment. 5th edition. Bangkok: Chulalongkorn University Press.
- Wachirawat Ngamlamom. (2015). Theory of Participation. Thai Academic Development and Management Institute TRDM: Pathum Thani
- Worawit Cheeporn. (2004). Techniques for analyzing environmental quality. Chonburi: Chonburi Printing.
- Wasin Ingkhapattanakul et al., (2017). Commercial fisheries are capable of catching more fish with more energy than fishermen who fish with local fishermen. Songkhla: Prince of Songkhla University.
- Sornchai Paliwong. (2013). People's Participation in Managing Dust Problems in Vientiane Capital. Master of Arts Thesis. (Human and Environmental Management), Chiang Mai University.
- Siriwan Sereerat. (2007). Consumer Behavior. Bangkok: Publishing House, Theeraphanyont and Sci-Tech Co., Ltd.
- Somkid Bangmo. (2002). Organization and management. (3rd edition). Bangkok: Wittayapat.
- Somyot Nawakari. (1993). Introduction to Management. Bangkok Metropolitan Administration. Duangkamol.
- Siam Arunsornmorakot, Yongyut Watcharadul. (2021). United Nations 17 Sustainable Development Goals for the Future World. Thai Interdisciplinary Research Journal. 11 (3), 1-17.
- Sawat Non Sung. (2000). Natural resources and the environment. Bangkok: Odeon Store
- Office of the National Economic and Social Development Board. (2017). 20-year national strategy. (2017 - 2036).
- Office of Natural Resources and Environmental Policy and Planning, (2022). Coastal land and coastal areas, issue 4. Bangkok: Department of Marine and Coastal Resources.

- Office of Natural Resources and Environmental Policy and Planning. (2007). A Study on National Solid Waste and Hazardous Waste Management Strategic Plan, Ministry of Natural Resources and Environment.
- Saowalak Mathuratsakul et al. (2010). Guidelines for Coastal Erosion Management by Stakeholder Participation: A Case Study of Chao Lao Beach and Laem Sadet Beach, Klong Kut Sub-district, Tha Mai District, Chanthaburi Province. Khon Kaen University Journal. 10(2), 71-78.
- Sopharat Jarusombat. (2003). Natural resource and environmental management in Asia. south east Bangkok: Chulalongkorn University Press.
- Atikan Wichit. (2016). Potential development of local fishermen in the municipality of Phum Riang Subdistrict, Chaiya District, Surat Thani Province. Silpakorn University Journal. 9 (2), 1909-1924.
- Butler, R. (1963). The life review: An interpretation of reminiscence in the aged. Journal for the Study of Interpersonal Process, 26(1), 65-76.
- Drucker, Peter F. (1954). The Practice of Management. New York: Harper & Row, Publishers. Fayol, H. (1925). General and Industrial Management. London: Sir Isaac Pitman and Sons.
- Lunenburg. Fred and C. Ornstein Allan. (1996). Educational Administration: Concepts and Practices. 2nd ed. New York: Wadsworth Publishing Company.
- Powell, R. R. (1997). User studies In John Feather & Paul Sturges In. International Encyclopedia of Information and Library Science. (pp. 455-457). London: Routledge.
- Turner, Ronna C. and Carlson, Laurie. (2003). Indexes of Item-Objective Congruence for Multidimensional Items. International Journal of Testing Volume 3 Number 2