

Systematic Literature Review on Coastal Sociology: The Uses of Sociological Paradigms

Tinjauan Literatur Sistematis tentang Sosiologi Pesisir: Kegunaan Paradigma Sosiologi

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ABSTRACT

The increasing density of coastal populations has resulted in various environmental and social challenges. To address these issues, various studies have been conducted by coastal sociologists. However, no research has yet discussed the use of paradigms in coastal sociology articles. This research aims to identify the use of paradigms in the field of coastal sociology. This systematic literature review was conducted using the PRISMA method. This research began by searching for articles related to the keyword of "Coastal Sociology" in the Scopus and Web of Science databases. The search successfully identified 98 research articles published until the end of 2024, in English and openly accessible. This research applies Ritzer's multiple sociological paradigms, the Human Exceptionalism Paradigm (HEP) and the New Ecological Paradigm (NEP) in the screening process to find 21 relevant and eligible articles. This research found ten themes frequently discussed in coastal sociology articles, namely community adaptation, environmental justice, public migration, traditional beliefs, ecotourism, public health, public participation, coastal wildlife, fishing industry, and gender issues. This study also provides a summary of information from 21 articles related to the distribution of time and place of research, data collection methods, popular sociological paradigms, and interrelated factors between the environment and society. The word "paradigm" is only found in five articles (environmental justice paradigm, hydraulic paradigm, neoliberal policy paradigm, and new paradigm for well-being), but it is not to explain the sociological paradigm for the research.

Keywords: Coastal Sociology; Environmental Sociology; Paradigm Application; Ritzer Paradigm; SLR Screening

ABSTRAK

Kepadatan penduduk pesisir pantai yang semakin meningkat telah mewujudkan pelbagai cabaran alam sekitar dan sosial. Bagi menangani isu-isu ini, pelbagai kajian telah dijalankan oleh ahli sosiologi pesisir pantai. Walau bagaimanapun, tiada kajian yang membincangkan penggunaan paradigma dalam artikel sosiologi pesisir pantai. Kajian ini bertujuan untuk mengenal pasti penggunaan paradigma dalam penyelidikan sosiologi pesisir pantai. Kajian literatur sistematik ini dijalankan menggunakan kaedah PRISMA. Kajian ini dimulakan dengan mencari artikel berkaitan sosiologi pesisir pantai menggunakan kata kunci "Sosiologi Pesisir" dalam pangkalan data Scopus dan Web of Science. Carian berjaya mengenal pasti 98 artikel penyelidikan yang diterbitkan sehingga akhir tahun 2024, dalam bahasa Inggeris dan boleh diakses secara terbuka. Kajian ini mengaplikasikan Paradigma Berganda Sosiologi dari Ritzer, Paradigma Keistimewaan Manusia (HEP) dan Paradigma Ekologi Baharu (NEP) dalam proses penyaringan untuk mencari 21 artikel yang relevan dan layak. Kajian ini menemui sembilan tema yang sering dibincangkan dalam artikel sosiologi pesisir pantai, iaitu kepercayaan tradisional, penyesuaian komuniti, keadilan alam sekitar, migrasi awam, penyertaan awam, ekopelancongan, kesaksamaan jantina, industri perikanan, dan hidupan liar pesisir pantai. Kajian ini juga menyediakan ringkasan maklumat daripada 21 artikel berkaitan dengan taburan masa dan tempat penyelidikan, kaedah pengumpulan data, paradigma sosiologi popular, dan faktor yang saling berkaitan antara persekitaran dan masyarakat. Perkataan "paradigma" hanya terdapat dalam lima artikel (paradigma keadilan alam sekitar, paradigma hidraulik, paradigma dasar neoliberal, dan paradigma baharu untuk kesejahteraan), tetapi bukan untuk menjelaskan paradigma sosiologi untuk penyelidikan tersebut.

Kata kunci: Sosiologi Pesisir; Sosiologi Alam Sekitar; Aplikasi Paradigma; Paradigma Ritzer; Saringan SLR

INTRODUCTION

The long history of mankind shows that coastal areas are high-density human areas because of their strategic location or another privilege. Many great civilizations in history were located on the coast, such as the Minoan, Phoenician, Ancient Greek, Srivijaya, and Malacca civilizations. According to Reimann et al., (2023), almost 2.15 billion people live in a 100-kilometer radius of the coastline, and 898 million of those people live in the low-area coastal zone (that area is less than 10 meters from the sea surface). In 2100, coastal areas are predicted to accommodate 2.9 billion people, with 1.2 billion of those people living in low-area coastal zones. No wonder the United Nations Environmental Program (UNEP) said that 12 of the 15 world's biggest megacities—which accommodate 40% of the global population—are placed in coastal areas. Unfortunately, population growth in this coastal area is also predicted to increase the safety risks for coastal residents and damage coastal ecosystems. Neumann et al., (2015) discussed that rising sea levels and flooding are very dangerous for communities living in coastal areas, while Creel (2003) mentioned that migration, urbanization, tourism, and the fishing industry have a significant impact on the sustainability of coastal areas.

High population density in coastal areas has caused numerous problems worldwide. These problems are detrimental to both human welfare and the coastal environment. For example, in Australia, climate change has threatened air quality, food security, water resources, housing, safety, and mental health in remote Australian communities due to bushfires, floods, cyclones, the spread of infectious diseases, and drought (Lansbury Hall & Crosby, 2022). But Australians have also converted tens of thousands of hectares of coastal land into agricultural land since the 1900s in Queensland (Rowland et al., 2023). In Africa, extreme rainfall and flooding on the east coast of KwaZulu-Natal Province, South Africa, in 2022 killed 435 people and destroyed several thousand homes, roads, and bridges (Bouchard et al., 2023). However, sand mining, dam construction, and human activities have caused shoreline changes and erosion in Ghana, West Africa (Ankrah et al., 2023). In the Americas, 130 people died in landslides that coincided with flash floods from waves off Brazil's east coast. These events, which occurred in May and April 2022 in the states of Pernambuco, Alagoas, and Paraíba, prompted fourteen municipalities in the Recife metropolitan area to declare a state of emergency and affected 130,000 Brazilians (Marengo et al., 2023).

Conversely, human waste from coastal communities in Lee County, Florida, USA, has polluted urban watersheds and caused ecological problems (Tyre et al., 2023). In Asia, coastal disasters during the 21st century alone have claimed 400,000 lives in Asia through the Indian Ocean Tsunami, Cyclone Sidr in Bangladesh, Cyclone Nargis in Myanmar, the Great Japan Earthquake and Tsunami, Typhoon Haiyan in the Philippines, and the Sulawesi Earthquake, Landslide, and Tsunami in Indonesia (Takagi & Heidarzadeh, 2023). But Indonesia lost 182,091 ha of mangroves from 2009 to 2019 due to aquaculture and agricultural practices (Arifanti et al., 2021). Extreme weather events along the Atlantic and Mediterranean coasts in Europe caused 168 deaths, 137 injuries, and nearly €4,000 million in direct economic losses in France, Portugal, and Spain from January 2009 to February 2020 (Mateos et al., 2023). However, building a railway along the Sicilian-Italian coast has done a lot of damage to coastal environments (Cinelli et al., 2021). These conflicts between coastal environments and human activities have generated considerable research in coastal sociology.

A systematic literature review is necessary to understand the development of coastal sociology research. However, many research articles currently discuss the lives of coastal communities. Therefore, a method is needed to identify relevant and eligible articles. As part of sociology, relevant coastal sociological research must be linked to sociological paradigms. Ritzer (1975) stated that sociology is a multiparadigm science: social facts, social definition, and social behavior. Furthermore, coastal sociology as part of the sociological environment is also tied to two main paradigms of the sociological environment: the New Ecological Paradigm (NEP) and the Human Exceptionalism Paradigm (HEP). First introduced by Catton and Dunlap in 1978²⁴, this paradigm can be briefly understood as "nature influences humans" (NEP) or "humans influence nature" (HEP). So, coastal sociological research must have "the interrelated factors" between nature and humanity. The objective of this article is (1) to find the articles that are relevant and eligible as coastal sociology research articles by using the Ritzer and Dunlap/Catton paradigm and (2) to identify the used of paradigms in coastal sociology research. Application of paradigm is really important to differentiate real coastal sociological research from unsociological research or sociological research that "happens" in a coastal area.

LITERATURE REVIEW

Depending the term of "paradigm" was popularized by Kuhn (1962) in his book *The Structure of Scientific Revolution*. Kuhn criticized the positivist and falsificationist views on the development of science. According to Kuhn, scientific development did not occur in a linear and accumulative manner. Science develops through a dynamic process of paradigm change. This process of change goes through several phases: the old paradigm phase, the normal science phase, the emergence of anomalies, the crisis phase from anomalies accumulation, the scientific revolution phase, and the rise of a new paradigm. He called the period before the consensus of the scientific community was established the pre-paradigm period. According to Kuhn, a paradigm is not merely a point of view but also includes fundamental theories, basic assumptions, research methods and instruments, standards for appropriate problems, and successful examples (exemplars) from past research. He believes that different paradigms cannot be directly compared (incommensurable). He demonstrated that social, psychological, and historical factors, particularly in the scientific community, influence paradigm shifts and scientific development. Kuhn used the term of "paradigm" 21 times in different contexts. Masterman (1970) then summarized the paradigm concepts introduced by Kuhn into three types: metaphysical paradigms, sociological paradigms, and construct paradigms. Masterman talked about these three paradigms in his book entitled *"The Nature of a Paradigm"*.

Friedrichs (1970) discussed paradigms in his book *"Sociology of Sociology."* Friedrichs agreed with Kuhn that the paradigms of scientific communities are influenced by social, political, and personality factors. He called these factors "worldviews." Friedrichs distinguished between sociological paradigms and scientific paradigms. The sociological paradigm addresses the theory and subject matter of sociology, while the scientific paradigm addresses the methods and goals of studying social science. He also identified two dominant scientific paradigms among sociologists. The first is the law-like paradigm, and the second is the humanistic paradigm. Sociologists who use the lawlike paradigm tend to be more objective, value-free, and use quantitative methods to explore social laws. Auguste Comte, Emile Durkheim, and Talcott Parsons are considered sociologists with the lawlike paradigm. On the other hand, sociologists who use the humanistic

paradigm tend to be more subjective, structure-free, and use qualitative methods to understand social processes and their actors. These sociologists with the humanist paradigm for example are Max Weber, Karl Marx, and George Herbert Mead. Friedrichs' opinions about paradigms can help a sociologist understand his own research character and choose appropriate theories.

Effrat (1972) wrote an article entitled "Power to the Paradigms: An Editorial Introduction." This article was written when the Structural Functionalism Paradigm was receiving much criticism from partisan of conflict theory and Symbolic Interactionism. Effrat wrote this article to show the changes occurring in the discipline of sociology. The single paradigm that had been used in sociology was asked by other paradigms. Effrat saw paradigms as maps that display certain information and ignore other information. He also saw paradigms as lenses that can view the same thing from different angles. According to Effrat, paradigms have three functions: selecting, directing, and organizing. The selecting function consists of choosing important problems, choosing problem-solving methods, and selecting relevant data. The directing function consists of providing an agenda, a framework, a list of questions, and a template for answers. The organizing function is to organize disparate findings and glue together intermediate theories. Effrat also created a paradigm map based on two fundamental questions: What is the nature of social reality (ontological) and how humans behave (praxeological). He concluded four things. First, the debate between paradigms is difficult to find an end because the underlying questions are different. Second, a sociologist must be aware of his own paradigm. Third, no paradigm can make a full truth claim. Fourth, the development of sociology requires in-depth dialogue between paradigms.

Kuhn, Masterman, Friedrich and Effrat's writings on paradigms led to the assumption that sociology was unscientific because it lacked a single paradigm. To refuse the assumption, Phillips (1973) wrote an article entitled "Paradigm, Falsifications, and Sociology." He mentioned three important points in the article. First, he underlined that Kuhn never made a "single paradigm" as a scientific requirement. Second, he shows that natural sciences such as physics sometimes also have multiple paradigms. Third, he explained that multiple paradigms in sociology actually are the strength of sociology. Phillips also offered a more comprehensive definition of paradigm. According to Phillips, a paradigm is a network of theories. A paradigm connects high-level theories (those most difficult to prove), mid-level theories, and low-level generalizations (those easiest to prove). If falsification or anomalies occur, the paradigm protects the high-level (hardcore) theory. Partisans of the paradigm usually modify the mid-level theory (a protective belt). Phillips successfully resolved the long-standing debate between Popper's view of falsification and Kuhn's view of anomalies in paradigms.

Ritzer (1975) wrote a book entitled "Sociology: A Multiple Paradigm Science." In this book, Ritzer was very proud of sociology as a science with multiple paradigms. He grouped sociological paradigms into three groups based on their subject matter. First, the social fact paradigm, which considers social reality as an external fact that forces people to conduct their behavior. Theories related to the social fact paradigm are structural functionalism and systems theory. Second, the social definition paradigm, which considers social reality as a product of the definitions, interpretations, and meanings given by individuals through interaction. The related theories are symbolic interactionism, phenomenology, and ethnomethodology. Third, the social behavior paradigm, which considers social reality as the observable behavior of individuals who are influenced by the environment, or influence the environment. The theory related to this paradigm is social exchange theory. Ritzer opinion slightly differs from Kuhn's opinion. Kuhn see that new paradigm as the result of scientific revolutions over old paradigms. Meanwhile, the three paradigms said by Ritzer in sociology continue to exist and compete each other until today.

METHODOLOGY

PRISMA STATEMENT

This study used the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework. PRISMA for systematic reviews (Moher et al., 2009) was chosen because it provides a strong and clear methodological foundation.

RESEARCH QUESTION

This study aims to examine three main components: (1) scientific articles containing the term 'coastal sociology' (population), (2) the relevance and eligible articles to be classified as coastal sociology research (issue), and (3) the extent of the temporal, spatial, popular themes, and the used of paradigms in coastal sociology research (context). Therefore, this article attempts to answer three main questions. First, how many research articles use the term 'coastal sociology' in the Scopus and Web of Science (WoS) databases? Second, how many articles are relevant and eligible to be called coastal sociology research articles? Third, what is the temporal, spatial, and popular theme distribution of coastal sociology research articles?

IDENTIFICATION

Using the keyword 'Coastal Sociology' in the searching process, we found 43 articles from Scopus and 50 articles from Web of Science (WoS). The keywords were found in the title, abstract, or body of the article. These 93 articles were only English-language, open-access research articles. Limitations of the search strategy are expected to be in precision and coverage. Using the keyword "coastal sociology" may have narrowed the results and missed relevant studies. But, the searching process by 'Coastal Sociology' keywords was realized to be quite accurate. The results provided were far more precise than a search using the keyword 'Coastal' and then filtering it with the keyword 'Sociology' or vice versa. By separating 'Coastal' and 'Sociology', the result would give us 1,581 articles, but the majority of these did not discuss coastal sociology.

TABLE 1. Search String

Data Base	Search String
Scopus	TITLE-ABS-KEY (coastal AND sociology) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (OA , "all"))
WoS	(ALL=(coastal sociology)) AND (DT=("ARTICLE") AND LA=("ENGLISH") AND OAJ=("ALL OPEN ACCESS"))

SCREENING

From 93 articles found in Scopus and WoS, 23 duplicate articles were removed. 70 articles left to enter the test of relevancy. Information from the title and abstract was used to delete non-relevant articles. 29 non-relevant articles were deleted due to reasons such as being non-research articles (review articles), non-coastal area research, and non-sociological research. To differentiate between sociological and non-sociological research, three sociological paradigms from Ritzer (1975) which are social facts, social definition, and social behavior had been used. Then, 41 relevant articles were tested as coastal sociology articles.

ELIGIBILITY

Articles entering this process were carefully reviewed to distinguish between coastal sociology studies and sociological studies conducted in coastal areas. The Human Exceptionalist Paradigm (HEP) and the New Ecological Paradigm (NEP) by Catton and Dunlap (1978) served as the theoretical basis for distinguishing eligible articles. The use of these paradigms required us to identify "the interrelated factors" between society and nature. From the 41 relevant articles, only 21 articles qualified as eligible coastal sociology articles, while the remaining 20 were sociological studies conducted in coastal areas. The 20 articles were excluded because they did not have "the interrelated factors", so they were not eligible to be classified as environmental sociology or coastal sociology research articles.

DATABASE ELIGIBILITY

All articles submitted to the selection process have undergone an indexing eligibility assessment. This is evidenced by their publication in journals indexed by Scopus and Web of Science (WoS).

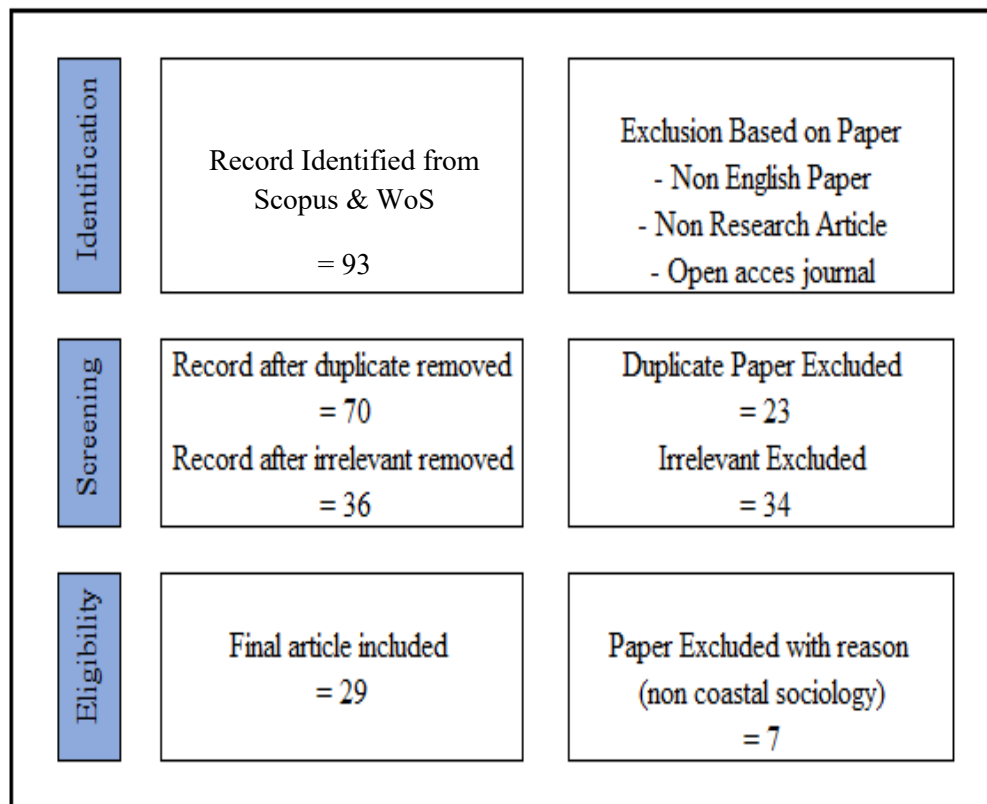


FIGURE 1. Research Strategy

RESULTS AND DISCUSSION

TEMPORAL AND SPATIAL DISTRIBUTION

This research found several articles that used the words "sociology" and "coastal" but did not discuss social facts, social behavior, or social definitions at all. These articles mostly came from the field of environmental management, such as articles written by Zheng et al., (2024), Tam et al., (2024), Sovacool et al., (2024), Tagtachian and Balk (2023), Knol-Kauffmann et al., (2023), Gray (2021), and Afonso et al. (2021). Articles from the field of geography were also found, such as those written by Park (2021) and Zhou et al., (2022). There were also articles from the field of agriculture, written by Manikandan et al., (2025), Viaud et al., (2023) and Failler et al., (2022). There were also articles from the field of information technology, such as those written by Zhang et.al., (2024). These articles did not pass the relevance test, but it can be seen that the field of environmental management is very much related to environmental sociology and coastal sociology.

Several other articles passed the relevance screening did not pass the eligibility. For example, articles titled "Making a difference with matter in researchers' positionality dynamics in qualitative inquiry" (Adjei & Chan, 2024), "Developing AI for Weather Prediction: Ethics of Design and Anxieties about Automation at the US Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography" (Lukacz, 2024), "Fisheries local action groups, small-scale fisheries and territorial development" (Phillipson et al., 2024), "Embeddedness at varying depths: interactions between rural e-commerce entrepreneurs and China's local politico-economic contexts" (You, 2023), "An inequity assessment framework for planning coastal and marine conservation and development interventions" (Singh et al., 2023), "Engineering an Ecological Civilization Along Shanghai's Main Waterfront and Coastline: Evaluating Ongoing Efforts to Construct an Urban Eco-Network" (Den Hartog, 2021), and "Quantifying Spatiotemporal Changes in Human Activities Induced by COVID-19 Pandemic Using Daily Nighttime Light Data" (Lan et al., 2021). This ineligibility occurred because the four articles failed to demonstrate the interrelated factors between humans and the environment. This ineligibility indicates that these articles are indeed sociological articles, but they are not suitable as research articles in environmental or coastal sociology. It was only in 2015 that an article titled "Participate for Women's Sake? A Gender Analysis of a Swedish Collaborative Environmental Management Project" was published (Westberg & Powell, 2015). This was the first article to pass the relevance and eligibility screening.

Environmental sociologists have published numerous relevant and worthy coastal sociology research articles from 2015 to 2024. The number of articles varies each year, with a minimum of one article (in 2015, 2017, and 2022) and a maximum of six (in 2024). However, four articles published in 2018 failed to pass the eligibility screening. This study cannot yet explain the reasons for the highly fluctuating number of published articles. Generally, the results indicate that the publication of coastal sociology research articles is trending upward. More detailed information can be seen in Figure 2.

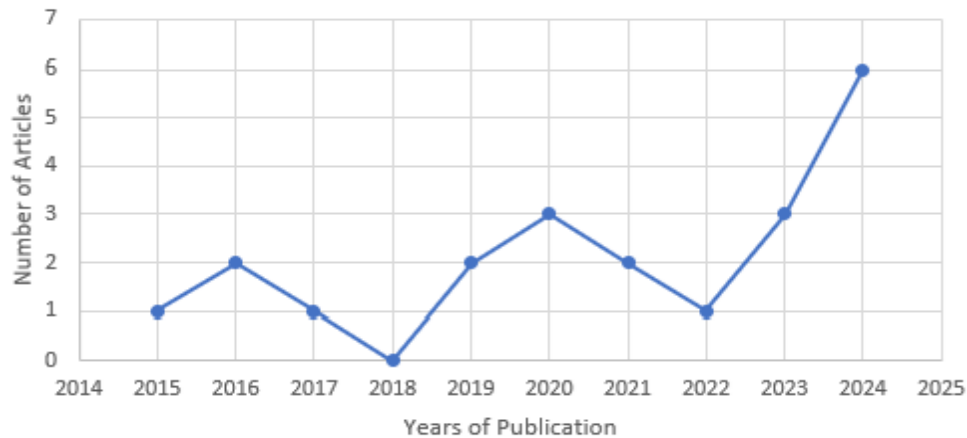


FIGURE 2. Temporal Distributin Chart

The research found that environmental sociologists have conducted coastal sociology research in twelve countries. These twelve countries are Vietnam (four articles), Indonesia (three articles), the United Kingdom (three articles), the United States (three articles), Australia (one article), Cambodia (one article), Chile (one article), France (one article), Kenya (one article), New Zealand (one article), Sweden (one article), and Tanzania (one article). The research findings indicate two things. First, no single country dominates coastal sociology research. Second, several countries with long coastlines, such as Vietnam, Indonesia, the United Kingdom, and the United States, have more coastal sociology research. More detailed information can be seen in Figure 3.

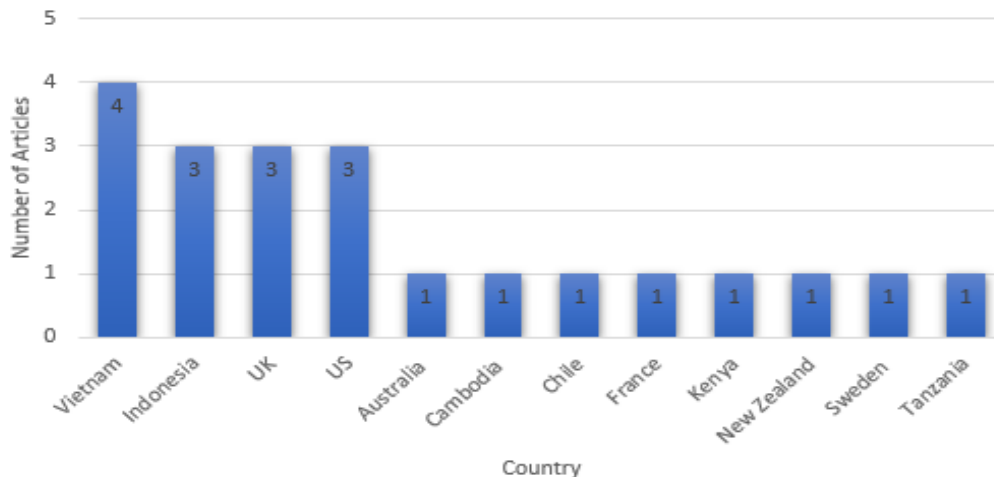


FIGURE 3. Spatial Distribution Chart

However, this research does not state that only twelve countries conduct coastal sociology research. The research found other relevant and eligible coastal sociology articles, but they did not appear in the search results. For example, a study in Malaysia (Yusoff & Yusoff, 2022) entitled "Disaster risks management through adaptive actions from human-based perspective: case study of 2014 flood disaster" (indexed by Scopus) or a study in Iran (Jannatov, 2024) entitled "Analysis of the Influence of Environmental Crisis in the Lake Urmia Basin on the Middle East" (indexed

by WoS). Unfortunately, neither of these articles uses the term "Coastal Sociology" in the title, abstract, keywords, or body of the article.

Indeed, using "Coastal Sociology" as a keyword in the searching process narrows the search results. However, it provides a clear recognition and demarcation between coastal sociology research and other research. A social science SLR requires a clear delimitation method because social science research articles tend to have similar and general titles. For example, an article entitled "Navigating Security and Human Rights: The Malaysian Maritime Enforcement Agency's Response to the Rohingya Refugee Crisis" (Aizat Khairi et al., 2025) can address various aspects, including humanitarian, legal, management, and environmental issues. We offer the principle of making SLR in social science research, which should go through three stages of screening: relevance screening, eligibility screening, and recognition screening.

DATA COLLECTION METHOD

Seven data collection methods were used in 21 coastal sociological research articles. These methods were interviews (36%), observation (18%), secondary data (13%), documentation (9%), focus group discussions (9%), case studies (7%), and surveys (7%). More detailed information can be seen in Figure 4. The majority of coastal sociological research used more than one data collection method. Two interesting data collection techniques are worth discussing. First, verbal data recording (Keating et al., 2024). This technique does not like recording an interview session. Instead, it records conversations overheard by the researcher while actively participating in the observed activities. Second, photo elicitation (Szaboova et al., 2020). Researchers provided participants with several photos and asked them to categorize the photos. This technique provided researchers with information about beautiful outdoor spots that frequently, rarely, or never used by the participants. Photo elicitation is categorized under survey and verbal data recording are categorized under documentation. This study also identified one interesting data collection technique from an article that did not pass the screening process (Morales-Nin et al., 2005). The sociological article focused on recreational fishing. It used volunteer logbooks and match recordings as data sources.

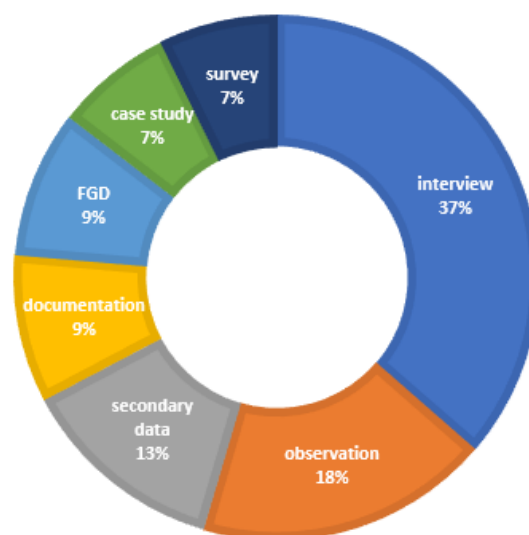


FIGURE 4. Data Collection Method

THEMATIC ANALYSIS

Ten popular themes have been discussed in 21 coastal sociology research articles. The themes are community adaptation (3 articles), environmental justice (3 articles), public migration (3 articles), traditional beliefs (3 articles), ecotourism (2 articles), public health (2 articles), public participation (2 articles), coastal wildlife (1 article), the fishing industry (1 article), and gender studies (1 article). Three articles on community adaptation discuss community adaptation to climate change. Three articles on environmental justice discuss legal and regulatory injustices in accessing ecosystem benefits. Three articles on public migration discuss youth, community marginalization, and conflicts between indigenous and non-native populations. Three articles on traditional beliefs discuss local wisdom, environmental sacralization, and belief transformation. Two articles on ecotourism discuss empowerment and local community identity. Two articles on public health discuss environmental landscapes, benefits, and the burden of malaria. An article on wildlife discusses the threat of jellyfish to humans. An article on the fishing industry discusses salmon industry regulations. An article on gender studies discusses the role of women in environmental management regulations. Two articles on public participation discuss the distribution of natural resources and coastal management.

No standard method has been found for grouping sociological research article themes in an SLR. Therefore, thematic categorization is conducted by summarizing keywords from each article. We offer another method for grouping articles. This method is based on the paradigms in sociology proposed by Ritzer (1975). The group of paradigms can be seen in Table 2. The use of these paradigms has two functions. First, it separates sociological research from non-sociological research. Second, it increases the opportunity for research gaps in sociological research. As a multiple-paradigm science, sociology has more perspectives in viewing research objects. Differences in paradigms used in research can create research gaps. Identifying research gaps is one of the goals of researchers creating SLRs.

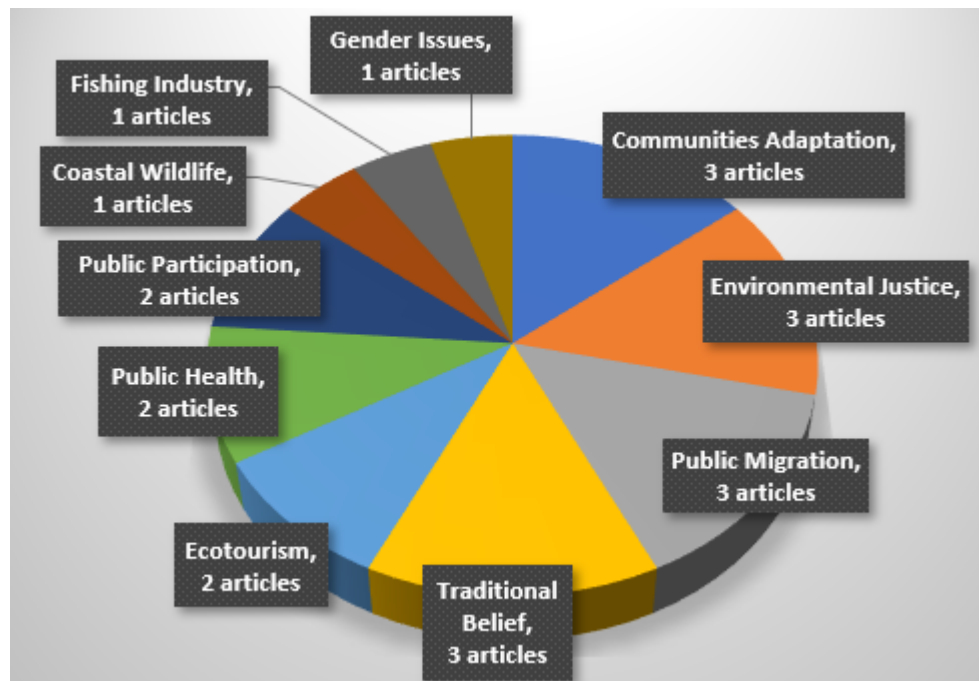


FIGURE 5. Popular Themes

PARADIGM IN ENVIRONMENTAL SOCIOLOGY, COASTAL SOCIOLOGY, AND SLR

Most environmental sociology research before 1960 was influenced by the structural functionalist paradigm. This paradigm was anthropocentric and viewed nature as an object to be exploited by humans. However, around 1960-1980, a paradigm shift occurred. The New Paradigm was more ecocentric and strongly opposed capitalism, which overexploited nature. Catton and Dunlap, in their article entitled "Paradigms, Theories, and the Primacy of the HEP-NEP Distinction," referred to the old paradigm as the Human Exceptional Paradigm (HEP) and the new paradigm as the New Ecological Paradigm (NEP). This paradigm shift was triggered by several things. First, the publication of writings that spoke out against environmental exploitation, such as "Silent Spring" (Carson, 1962), "Tragedy of the Commons" (Hardin, 1968), "The Closing Circle: Nature, Man, and Technology" (Commoner, 1971) and "The Limits to Growth : a report to the club of Rome" in 1972 (Meadows, 1972). Second, several big environmental events occurred, such as Earth Day 1970, the energy crisis in 1973, and the formation of the sociological and technological environmental section within the American Sociological Association (ASA) in 1976. The shift from HEP to NEP occurred in a similar pattern to the paradigm shift predicted by Kuhn. This article does not aim to discuss the precise meaning of paradigms, but rather to found the used of paradigm in coastal sociology articles and apply the paradigm in SLRs making process.

In general, SLRs are created to identify research gaps in a scientific field. Type of gaps are research gaps include the evidence, knowledge, practical-knowledge, methodological, empirical, theoretical, and population gap. These gaps are discussed in the works of Robinson (2011), Müller-Bloch and Kanz (2015), Miles (2017), and Jacobs (2021). Not all of these research gaps can be found in SLRs. SLRs based on Prisma Statements typically usually only provide data on the distribution of time and place, data collection methods, and thematic analysis. The SLRs can at least serve as a reference for finding research articles related to a scientific field. In this SLR on coastal sociology, only five articles mention the word paradigm, (three of it are listed only in the reference). Some articles do not even mention the theory used in their research at all. The paradigms mentioned in these articles are the environmental justice, the hydraulic, the neoliberal policy, and the new paradigm for well-being. Even the HEP and NEP are not found in these 21 articles. None of the articles properly discuss the paradigm underlying the research. These findings indicate that coastal sociology researchers rarely use paradigms explicitly in research articles.

This article offers a solution to the methodological gap in the SLR screening process. Paradigms can be used in the article screening process because one of their functions is to determine subject matter (Friedrich, 1970) or important issues (Effrat 1972). Among the many paradigms offered by sociologists, the Ritzer classification is used to screen relevant articles. Ritzer's classification is considered the most recent and simplest. Ritzer divides sociological paradigms into three groups: social facts, social definitions, and social behavior. Social facts refer to fields of study that focus on "entities outside the individual" and tend to use questionnaires and interviews. Social definitions refer to fields of study that focus on "the meaning of social action" and tend to use observational methods. Social behavior refers to fields of study that focus on "individual behavior as influenced by the surrounding environment" and tend to use experimental methods. The groupings made in this article are still interpretative and require inter-rater checks or structured validation steps to reduce classification bias.

The HEP and NEP paradigms are used to select eligible articles. In general, the HEP and NEP paradigms are quite contradictory. However, these two paradigms have one thing in common: the interrelated factors between social and environment matter. In this article, I define interrelated factors as subject matter or important issues in the fields of sociology and environmental science

that are discussed as interrelated. These subject matter or important issues can be found in the title, abstract, or keywords used by the author of an environmental sociology article. To test the effectiveness of the Ritzer, HEP, and NEP paradigms as screening tools, the term of environmental sociology is much more appropriate than coastal sociology. However, the strong interest in coastal sociology has led us to choose coastal sociology as the keyword. The need for appropriate screening references has been felt since we wrote the article entitled "Maslow's Hierarchy of Needs Theory in Environmental Sociology: A Systematic Literature Review on Theory Use" (Abu Bakar et al., 2025)

The strong interest in coastal sociology arises from many considerations. Coastal sociology is currently viewed as a unit of analysis. Coastal sociology has not become a subfield of environmental sociology because it does not have its own paradigm. However, the presence of this SLR will demonstrate the importance of a paradigm. The presence of the coastal sociology paradigm is not to narrow sociology as Osbaldiston (2018) argued, but to demonstrate the values and interests of the majority coastal sociology researcher. If the SLR is needed to identify research gaps in a scientific field, then a paradigm is needed to determine the relevance and eligibility of an article within a discipline. This research also provides "interrelated factors" from reviewed articles in Table 2.

TABLE 2. Title of article, paradigm and interrelated factor

No	Title	Paradigm	Interrelated Factor	
			Soc.	Env.
1	Democracy underwater: public participation, technical expertise, and climate infrastructure planning in New York City (Araos, 2023)	Social Fact	Social Class	Dissaster
2	Evolving blue development discourses and policies: Salmon farming industry and regional making in Chile (Carrasco & Casellas, 2024)	Social Definition	Government Policies	Salmon Farming
3	Ad Hoc Adaptations to Climate Change in Coastal Communities (Castro, 2024)	Social Behaviour	Human Adaptation	Climate Chage
4	What we know and what we think we know: Revealing misconceptions about coastal management for sandy beaches along the U.S. Atlantic Seaboard (Charbonneau et al., 2019)	Social Fact	Govern-ment Decision	Sandy Beach
5	Understanding the benefits and burdens associated with a malaria human infection study in Kenya: experiences of study volunteers and other stakeholders (Chi et al., 2021))	Social Behaviour	Human behaviour in reseach	Malaria in coastal region
6	Go Back To Where You Came From!: Moral Economy of Land and the Politics of Belonging in Coastal Tanzania (Chung, 2024)	Social Fact	Human conflict	Natural Resources
7	The impact of legal vulnerability on environmental inequalities. A case study of coastal populations in Guadeloupe (French Antilles) (Claeys et al., 2017)	Social Fact	Government Policy	Coastal Dangerous
8	How are coastal households responding to climate change? (Elrick-Barr et al., 2016)	Social Behaviour	Human Adaptation	Climate Change
9	Empowerment of Coastal Communities Through Marine Tourism: A Functional Approach (Hamzah et al., 2024)	Social Behaviour	Tourism activities	Coastal Resources
10	Transformation in Traditional Beliefs of Coastal Residents in Vietnam During the Current Urbanization Context: Case Study from Da Nang City (Hien & An, 2022)	Social Definition	Communities Beliefs	Coastal Nature
11	Movers, returners and stayers: the role of place in shaping the (im)mobility aspirations of young people in coastal towns (Keating et al., 2024)	Social Fact	Youth Behaviour	Coastal Geographic
12	The global spread of jellyfish hazards mirrors the pace of human imprint in the marine environment (Lee et al., 2023)	Social Behaviour	Human Activity	Jellyfish population
13	Coastal and marine resource policies and the loss of ethnic identity of the Bajo tribe (Obie, 2020)	Social Fact	Govern-ment Policy	Coastal and marine resources

14	Sacralization of natural environment and the socio-religious conditions of the South Coast of Java (Sardjuningsih et al., 2023)	Social Definition	Communities Beliefs	Coastal Nature
15	Access to Ecosystem Benefits: More than Proximity (Szaboova et al., 2020)	Social Fact	Social Class	Ecosystem Services
16	When water policies derail livelihood aspirations: farmers' agency in everyday politics in the Vietnamese Mekong Delta (Tran & Pittock, 2024)	Social Fact	Human Conflict	Coastal Water resources
17	Perceived Self-Efficacy and Adaptation to Climate Change in Coastal Cambodia (Ung et al., 2015)	Social Behaviour	Human adaptation	Climate Changes
18	"Wish you were here"? Geographies of exclusion: young people, coastal towns and marginality (Wenham, 2020)	Social Behaviour	Youth Marginalisation	Coastal Geographic
19	Participate for Women's Sake? A Gender Analysis of a Swedish Collaborative Environmental Management Project (Westberg & Powell, 2015)	Social Fact	Gender Discrimination	Coastal Ecosystem
20	Coastal communities, leisure and wellbeing: Advancing a trans-disciplinary agenda for understanding ocean-human relationships in Aotearoa New Zealand (Wheaton et al., 2021)	Social Definition	Human wellbeing and recreation	Ecosystem Services
21	Landscape and well-being: A conceptual framework and an example (Yuill et al., 2019)	Social Fact	Human Well-Being	Coastal Landscape

CONCLUSION

A total of 98 research articles were found in the Scopus and Web of Science (WoS) databases using the keyword "Coastal Sociology". These 98 articles are in English, open access, and published before 2025. From the 98 articles, only 21 passed the relevance and eligibility screening. The screening was carried out using Ritzer's multiparadigm-sociology, the Human Exceptional Paradigm, and the New Ecological Paradigm. Relevant and eligible articles were first published in 2015. The most publications (six articles) occurred in 2024. Research has been conducted in 12 countries, namely: Vietnam, Indonesia, the United Kingdom, the United States, Australia, Cambodia, Chile, France, Kenya, New Zealand, Sweden, and Tanzania. Vietnam is in first place with six articles. The data collection methods used were interviews, observation, secondary data, documentation, Focus Group Discussions, Case Studies, and Surveys. Several unique data collection methods were identified: verbal data recording and photo elicitation. The topics discussed in these coastal sociology articles are related to community adaptation, environmental justice, community migration, traditional beliefs, ecotourism, public health, community participation, coastal wildlife, gender issues, and the fishing industry. This article focuses on two main ideas. First, mapping coastal sociology articles found under the "coastal sociology" keyword. Second, proposing paradigm-based screening. The use of paradigms is important because they serve as a reference for the screening process but paradigms are rarely stated explicitly in scientific article reports. Unfortunately, this SLR only reviews English-language articles indexed by Scopus and WoS. It is estimated that many other coastal sociology articles are not in English. Therefore, it is hoped that in the future, a more comprehensive literature review will be conducted to determine the extent to which coastal sociology research has developed worldwide.

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