

Zoning Analysis of Settlement and Tourism in Kampung Melayu Terengganu

Gladies Imanda Utami Rangkyut¹, Vicky Lim², Nurhalisa³, Khayril Husnul⁴, Steven Eli Marsela⁵

Gladies@uib.ac.id¹, 22212004.vicky@uib.edu², 32112033.khayril@uib.edu³, 42112022.nurhalisa@uib.edu⁴,
52112026.steven@uib.edu⁵

^{1,2,3,4,5}Faculty of Civil Engineering and Planning, Architecture Study Program, Universitas Internasional Batam

Abstract

A city or region absolutely needs zoning or regional organization. One of them is Terengganu Malay Village Settlement Zone. Development without a clear regional organization and non-compliance with the rules for structuring coastal areas has caused Vanakula's condition to worsen. The concept of good settlement management can support the ability of an area to maintain activity stability between visitors and the people who live in the area. The purpose of this research is to determine the zoning between the tourism area and Kampung Melayu, Terengganu, and to provide clear guidelines for more appropriate zoning. The method used in this study is a qualitative descriptive analysis method, where data collection techniques are used to carry out zone analysis at the location of the research object. The results of the study show that the Terengganu old village area can support the achievement of a sustainable zone in terms of construction and quality of the area that is laid out. Based on findings in old village settlements in Terengganu, it is classified as flexible zoning, so it has the potential to become a non-permanent zoning area, impacting residential areas which can change their use at any time.

Keywords:

Zoning, Tourism, Terengganu Malay Village, Coastal Settlements

Introduction

Batam City is geographically very strategically located on an international shipping lane. Based on Local Regulation No. 2/2004 on Spatial Plan of Batam City 2004-2014, Batam City is located between: 00 25' 29" N 10 15' 00" N 103o 34' 35" E 1040 26' 04" The area of Batam City, like the districts/cities in other parts of Riau Islands Province, is also part of the continental shelf. The area of Batam city is 3,868.97 square kilometers. The islands scattered in this area are the remnants of pre-Tertiary land erosion or shrinkage that stretches from Peninsular Malaysia/Singapore in the north to Moro and Kundur Islands and Karimun in the north, south. (source Batam in figures, 2022)

The area in Batam City is mostly industrialized so that the city is often referred to as an industrial city. Batam City has 12 sub-districts. Interestingly, Nongsa sub-district itself has 14 Old Villages, in each old village there is a unique gate to welcome visitors and this gate was built by the Batam City Government to signify that there is an Old Village here. The development of the Old Village in Batam is slowly rising and starting to be used as a tourist spot. But there are still Old Villages that are still not neatly organized even for tourism that should be able to develop rapidly.

Gladies Imanda Rangkyut Utami, Vicky Lim,
Khayril Husnul, Nurhalisa, and
Steven Eli Marsela

Kampung Tua Terengganu is one of the old villages in Nongsa sub-district that is still not too developed even though the tourism potential there can be said to be very good, because it is one of the accesses to Putri Island. Kampung Tua Terengganu itself has an area of $\pm 64,100$ m² and has approximately 120 houses. The development of Terengganu Old Village continues to grow without any visible regional arrangement & without following the coastal area arrangement budget as a result it will cause degradation in the Old Village. The degradation will be seen in the arrangement of zoning areas between residential areas & tourist sites that are still mixed without clarity & restrictions.

This study aims to identify the zoning and constraints on the division between tourism areas and coastal settlements and provide clear direction on the placement of the Terengganu Old Village area. In the Terengganu village area in Nongsa, there is no good management, both the arrangement of settlements as well as the utilization & management of tourist attractions that can attract both local and foreign visitors. Based on the above background, a concept of settlement arrangement is needed that can support the tourism potential that exists as a result can maintain the stability of activities between visitors & people who live in the area.

Literature Review

Settlements

According to Law No. 1 of 2011, Settlement is part of a residential environment consisting of more than one housing unit that has infrastructure, facilities, public utilities, and has supporting activities for other functions in urban areas or rural areas. A residential environment can be said to be good and quality if the environment is able to accommodate the activities and way of life of its residents.

1. Coastal settlements

According to Dahuri et al, (2013), the coastal zone is a transitional zone between land and sea, seen from the coastline (littoral), the coastal zone has two types of boundaries perpendicular to the coastline (cross-shore). A common feature of coastal settlements is that demographically, coastal areas are characterized by migrants with very rapid population growth, illegal land occupation and often lack of attention to environmental quality, quantity. The layout of the area within the settlement is very important to be considered so that coastal settlements can be maintained and the existing coast is not eroded by settlements.

2. Settlement Pattern

According to R. Bintarto, there are 6 village patterns, namely: Along the road: The arrangement of the village follows the path of roads and rivers. Example: found in the Bantul area, Jogyakarta Extending the river: The arrangement of the village follows the paths of roads and rivers. Examples are found in Bantul, Yogyakarta, Radial: This village pattern is radial to the mountain and extends along the river on the slopes of the mountain, Scattered: The village pattern in the Gunung Kidul Yogyakarta is a nucleus that stands alone, Along the coast: In the coastal area, the arrangement of fishing villages is elongated along the coast, parallel to the railroad.

Zoning

According to KBBI 2011 Zoning is the division or division of an area into several parts according to the function and management objectives. The zoning concept provides a framework within which plans are put together and is an important part of the master plan but does not replace it.

There are 6 (six) types of planning which are divided into 2 (two) types including flexible planning and fixed planning. The difference between the two groups lies in the approach, manner and scale of the zoning policy, namely:

1. Flexible division, including:

Gladies Imanda Rangkuty Utami, Vicky Lim,
Khayril Husnul, Nurhalisa, and
Steven Eli Marsela

- a. Rezoning, which restricts land within existing zoning to facilitate the objectives of new development or improvement projects.
 - b. Floating partitions, these are partition areas that are not rigid or fixed.
Approximately. Special exceptions, which are administrative policies for land acquisition.
2. Fixed partitions include:
- a. Grid or batch zoning, i.e. division into lines or groups on the assumption that the development will occupy the aggregated site at the same time and by separate owners.
 - b. Community unitary zoning, i.e. community unitary zoning in which land use and development regulations are in place, not for specific parts but for large areas, with the expectation that the entire development area is subject to the general provisions of the zoning regulations.
Approximately. Density partitioning, this is a new type that is different from the others. This type of form already exists for large areas and is the current zoning scheme.

Tourism

Tourism is a tourist activity carried out by several or a group of people by visiting certain places for the purpose of entertainment, personal development or study of unique tourist attractions that have been visited at a certain time. Meanwhile, religion is defined as a system that contains concepts that are believed and become the absolute belief of a people and leaders who practice them (Sucipto and Limbeng, 2017). Tourism is a temporary travel activity from a place of origin to a destination, not for the purpose of settling or making a living, but only to satisfy curiosity, pleasure, rest time and other purposes. (Meyer, 2019)

Research Methods

This research method uses a qualitative approach through narrative analysis and direct observation in the field. The analysis was conducted by dividing the zoning pattern simultaneously, utilizing the surrounding area and optimizing the function of space found in the field. The research location is still in the coastal settlement of Kampung Tua Terengganu, Nongsa District, Batam City, Riau Islands. Data collection from the methods used is useful in developing a qualification indicator model that supports regional potential. The variables observed in the data collection are the residential area and tourist area of Kampung Tua Terengganu.



Source: Author, 2022



Source: Author, 2022

Existing Site: Kampung Tua Terengganu Nongsa. Batam

Data Collection Technique

There are two data collection techniques in this study, namely primary data collection and secondary data collection. Primary data is a data collection technique obtained directly from the location of the object of research without intermediaries. Secondary data is a collection of information obtained from various related sources such as scientific journals, books and previous research. During data collection, additional information was sought from various sources such as scientific journals, books, theses, literature studies and various sources on the internet.

Collection of primary data containing field observations in Kampung Tua Terengganu Sub-district, Nongsa District, Batam City which includes physical information of the area and existing structures around the area. Collecting analytical data from residential and tourism areas. The collection of research data is supported by documentation in the form of photographs taken from research activities carried out at the location of the research object.

Results and Discussion

Kampung Tua Terengganu has a land area of $\pm 64,100$ m². The distribution of the area in Terengganu village based on table 1 is mostly used for tourist attractions as much as $\pm 27,385$ m². While settlements are only $\pm 18,715$ m² and Green Zone $\pm 18,000$ m². This needs to be considered and reviewed in order to provide an arrangement that is in accordance with the zoning regulations in the coastal settlement environment. In order to avoid uncontrolled land exploitation. The following is a table of land distribution in kampung terengganu.

Table 1. Distribution of Land Area According to its Use

No	Usage	Area (m ²)
1	Settlements	± 18.715 m ²
2	Tourist Attractions	$\pm 27,385$ m ²
3	Green Zone	± 18.000 m ²
4	Total Area	$\pm 64,100$ m ²

Source: Author, 2022

Identification of Potential Sites Based on the Distribution of Land Area

Based on the results of the identification of the distribution of land based on the Land Area Calculation variable. It can be interpreted that the spatial division program in the region is able to support the achievement of sustainable areas (sustainable zone) in building and considering the quality of sustainable areas, among others:

- a. Areas that have a positive influence, especially for settlements that provide the quality of life sustainability (Green Zone) so that public awareness is increasing to participate in maintaining the sustainability of nature.
- b. Consideration of areas that support human mobility which has an impact on changes to the tourism area and the development of other regional sectors.
- b. Development of natural capital conditions that have not provided major changes and the development of the tourism sector through supporting facilities and development that is useful for the regional economy.
- c. Zoning mapping directs development objectives based on sustainability strategies including regional facilities and infrastructure, health, education that meet regional infrastructure standards.

Facilities and Infrastructure

1. Facilities

Facilities are everything that can be used as a tool in achieving goals and objectives.

Table 2. Availability of Facilities

No	Facilities Availability	Facilities Availability
1	Education	Inadequate
2	Health	Inadequate
3	Worship	Adequate
4	Housing	Adequate
5	Green open space	Adequate
6	Trade	Adequate

Based on Table 2, education and health facilities are still inadequate, so further development of both facilities is needed to make it easier for the community.

2. Infrastructure

Infrastructure is everything that is the main support for the implementation of a process (business, development, projects and so on).

Table 3. Infrastructure Availability

No	Facilities Availability	Facilities Availability
1	Road	Adequate
2	Drainage	Adequate
3	Wastewater Treatment	Adequate
4	Clean Water	Adequate
5	Electricity	Adequate
6	Solid Waste	Adequate
7	Telecommunications	Adequate

Based on table 4, the infrastructure is adequate so that if sustainable development is carried out it can be easily and quickly.

Gladies Imanda Rangkuty Utami, Vicky Lim,
 Khayril Husnul, Nurhalisa, and
 Steven Eli Marsela

Analysis of Tourism Potential

Terengganu village has beach tourism with sea views that lead to Singapore. And there is also an annual competition in the form of boat racing which is a tradition of the Terengganu village community. The typical coastal scenery is also a tourism potential of this village and there are seafood culinary tours that are caught directly by the fishermen of the village. So that the tourism potential still needs development and grouping between settlements and tourism.

1. Available Tourism Objects

In its role as a tourist village of Kampung Terengganu, the following cultural attractions are available in Kampung Terengganu:

a. Coastal Settlement

Coastal settlements are residential areas consisting of dwellings and as a residential area along with advice and infrastructure located on the coast of the sea. The general characteristics of Coastal Settlements in Kampung Terengganu are demographically coastal areas that have a location adjacent to Singapore, Malaysia, and Princess Island.

b. Community Activities

People in Kampung Terengganu open their own businesses such as restaurants, crossing services to Putri Island, and gazebo rentals for beach visitors. And some people also work as employees. The surrounding community is also the manager of the beach tourist attractions in Terengganu village.

c. Community Traditions

Boat Racing

This tradition is an annual activity of the community in terenggganu village. this activity is carried out to attract visitors and as a gathering of residents between villages.

2. Number of Tourists

The number of tourists visiting Kampung Terengganu is residents of the city of Batam, residents outside the island and neighboring countries Malaysia and Singapore. For the number of tours around 100 visitors on weekdays and 200 visitors on holidays.

Analysis of Settlement Characteristics

1. Type of Settlement

Based on the existing literature then compared with the existing conditions of settlements where settlements in Kampung Terengganu have the following characteristics:

a. The community in establishing dwellings and forming their settlements no longer adhere to traditional values and dwellings tend to be modern in terms of facades and materials. The settlement pattern is linear following the coastline.

b. Physical system includes the use of a construction system and the use of materials that have similarities between one house and another.

c. The housing is still in the form of unfinished concrete and the GSB in each dwelling still does not meet the standards on land use.

Based on the above characteristics, it can be concluded that the type of settlement in Kampung Terengganu is a traditional to modern settlement. So that the type of settlement in Kampung Terengganu in the future will turn into a modern village.

Gladies Imanda Rangkuty Utami, Vicky Lim,
Khayril Husnul, Nurhalisa, and
Steven Eli Marsela

2. Settlement Pattern



LEGENDA
 Perumahan Penduduk
 Zona Wisata
 Zona Hijau/Resapan Air

Based on the settlement pattern in this area is the use of flexible zoning (Zoning that can change), especially in the floating zoning type, which is a zoning area that is not rigid or fixed. This is because the area is a settlement that changes in the transfer of functions.

Accessibility Analysis

Accessibility is one of the important aspects of travel, accessibility can be the main thing in an effort to increase the number of tourists. To measure the level of accessibility services, factors such as travel time, cost, frequency of connecting modes are needed. For accessibility in Terngganu village is quite easy but still needs clear and organized circulation.

Conclusions

Conclusion

From the results of the research and discussion previously described, it can be concluded that:

1. Spatial division in the region is able to support the achievement of sustainable areas (sustainable zone) in building and considering the quality of sustainable areas, among others (1) Areas that have a positive influence, especially for settlements that provide the quality of life sustainability (Green Zone) so that public awareness is increasing to participate in maintaining the sustainability of nature. (2) Consideration of areas that support human mobility which has an impact on changes to tourism areas and regional sector development. (3) Development of natural capital conditions that have not provided major changes and the development of the tourism sector through supporting facilities and development that is useful for the regional economy. (4) Orientation map (mapping Zoning) directs development objectives based on sustainability strategies including regional facilities and infrastructure, health, education that meet regional infrastructure standards.
2. Adequate facilities and infrastructure are very helpful in achieving the goals and objectives to be achieved. The facilities and infrastructure in this area are not fully adequate, namely from education and health facilities. Apart from education and health, other facilities and infrastructure such as worship, housing, green open space, trade, roads, wastewater treatment drainage, clean water, electricity and telecommunications are very

Gladies Imanda Rangkuty Utami, Vicky Lim,
 Khayril Husnul, Nurhalisa, and
 Steven Eli Marsela

- adequate so that the tourism potential adjacent to this settlement is expected to become a tourism area that is visited by many tourists.
3. Community activities in Kampung Terengganu that utilize the tourism sector adjacent to this settlement are by opening their own businesses such as restaurants, crossing services to Putri Island, and renting gazebos for beach visitors. The surrounding community is also the manager of the beach tourist attractions in Kampung Terengganu.
 4. Settlements in Kampung Terengganu have the following characteristics (1) The community in establishing dwellings and forming their settlements no longer adhere to traditional values and dwellings tend to be modern in terms of facades and materials. (2) Physical systems include the use of construction systems and the use of materials that have similarities between one house and another. (3) The housing is still in the form of unfinished concrete and the GSB in each dwelling still does not meet the standards on land use. Based on these characteristics, it can be concluded that the type of settlement in Kampung Terengganu is a traditional settlement towards modern, so that the type of settlement in Kampung Terengganu in the future will turn into a modern village.
 5. Based on the map of residential areas in this area using flexible zoning (Zoning that can change) type of floating zoning is a zoning area that is not rigid or not fixed. This is because the area is a settlement and tourist attractions that can change the transfer of functions.

Suggestion/Recommendation

Based on the results of the research and the conclusions that have been described, the researcher provides several suggestions, namely, as a coastal settlement that has the potential as a tourism site, this research was conducted to determine the zoning system of the Kampung Wisata Terengganu area as well as community activities and infrastructure facilities only. For further research, it is hoped that researchers can add recommendations for a good settlement pattern description, so as not to interfere with the tourism sector and the tourism potential around the Kampung Wisata Terengganu settlement can be maximized.

And it is also expected that the Riau Islands Regional Government, especially Batam City, will take part in tourism development and consideration of the potential of coastal tourism that is directly related to residential areas. As well as the division of zoning between settlements and tourism.

References

- Asiyah, S. (2014). Analisis Perubahan Permukiman Dan Karakteristik Permukiman Kumuh Akibat Abrasi Dan Inundasi Di Pesisir Kecamatan Sayung Kabupaten Demak Tahun 2003–2013 Implementasi Pengayaan Materi Pembelajaran Geografi Di Sma Pada Kelas Xi Semester II Kurikulum Tingk (Doctoral dissertation, UNS (Sebelas Maret University)).
- Christiawan, P. I., Citra, I. P. A., & Wahyuni, M. A. (2016). Penataan permukiman kumuh masyarakat Pesisir di desa sangsit. *WIDYA LAKSANA*, 5(2), 52-59.
- Egam, P. P., & Rengkung, M. M. (2017). ANALISIS VISUAL KAWASAN PESISIR PANTAI. Studi Kasus Permukiman Masyarakat LOS di Pesisir Pantai Malalayang (Doctoral dissertation, Sam tulangi University).
- Kristiyanti, M. (2016). Pemberdayaan Masyarakat Pesisir Pantai Melalui Pendekatan ICZM (Integrated Coastal Zone Management).
- Lautetu, L. M., Kumurur, V. A., & Warouw, F. (2019). Karakteristik permukiman masyarakat pada kawasan pesisir Kecamatan Bunaken. *Spasial*, 6(1), 126-136.
- Mahi, I. A. K. (2016). Pengembangan Wilayah: Terori & Aplikasi. Kencana.
- Gladies Imanda Rangkuty Utami, Vicky Lim, Khayril Husnul, Nurhalisa, and Steven Eli Marsela

- Manaf, M. (2015). Analisis Pemanfaatan Ruang Di Wilayah Pesisir Kecamatan Bontoharu Kabupaten Kepulauan Salayar. *Plano Madani: Jurnal Perencanaan Wilayah Dan Kota*, 4(2), 10-21.
- Putra, B. C. A., & Pigawati, B. (2013). Perubahan Karakteristik Permukiman Pesisir pada Kawasan Wisata Pantai Alam Randusanga Indah Kabupaten Brebes. *Teknik PWK (Perencanaan Wilayah Kota)*, 2(3), 444-456.
- Saptaningtyas, R. S., Hilyana, S., Utomo, P. K., & Hadi, A. P. (2018). Penataan Permukiman Pesisir Dalam Mendukung Pengembangan Pariwisata Di Provinsi NTB. *Prosiding Konferensi Nasional Pengabdian Kepada Masyarakat dan Corporate Social Responsibility (PKM-CSR)*, 1, 1691-1699.
- Undang-Undang Republik Indonesia Nomor 1 Tahun 2011. Perumahan dan Kawasan Permukiman.
- Widjajanti, W. W., & Hendra, F. H. (2013). Penataan Permukiman Nelayan di Pantai Mayangan Probolinggo Jawa Timur.
- Wuisan, M. M. (2013). Perancangan Pesisir Sindulang sebagai Kawasan Pariwisata Tradisional. *RADIAL: Jurnal Peradaban Sains, Rekayasa dan Teknologi*, 1(2), 126-136.