Design of Carita Beach Coastline Tourism Area at Pandeglang Banten

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Abstract. Waterfront area currently has a potential as a face of the city, it should not only being the behind area of the city. Waterfront area can be a tourist destination and a place that create social interaction, so that area can be the center of economic growth for the city especially in the field of tourism activity. Waterfront development experience many problems such as the loss of place quality. In the other side, private investment is not clearly regulated and causing the privatization of land in the shoreline area that should be the public space. Communities that received the impact of the development in the shoreline area are not to get involved in the planning process. This study formulates the design of tourism public space in a seaside area with attention to the image of an area and have the quality of public space. By analyzing design area both regionally and environmental context, in the findings obtained several principles that need to be considered to create a coastal tourist area as public space. In this study, planning and designing is required to involve the growth of coastal resorts can be run as a shared vision that avoids conflicts of interest.

1. Introduction
Banten is an area located on the western tip of Java Island, where most of its territory is surrounded by coastlines from the north to the south. The length of the coastline in the Banten region has a huge tourism potential, especially marine tourism. This opportunity has been responded to through a plan to accelerate regional development contained in the 2010-2030 Regional Spatial Plan. The plan includes the construction of the Sunda Strait Bridge on the North, and the Tanjung Lesung Waterfront City Tourism Special Economic Zone in the South. One of the Tourist Destination Areas (TDA) that developed on the coastal route west of Banten is Carita Beach which is located between the two nodes of the development of the region. For this reason, Carita Beach’s position is very strategic and benefits and will be affected by the development of the surrounding area.

Based on Regional Tourism Satellite Accounts (Nesprad 2009) Beaches in Banten are still the main choice of tourism objects visited by tourists (55.4%). The beaches that are the main tourist attractions visited are Anyer beach, Carita beach and Sawarna beach. Not much different from foreign tourists, the beach is also the main tourist attraction of a foreign tourist when vacationing in Banten (49.63%). More than half of tourists on vacation choose attractions along Anyer and Carita Beaches (64.52%)

The Carita Beach Tourism Area is located on the west coast of Banten, including the Pandeglang Regency government area. Located between 6 ° 18'23.98 "South Latitude and 105 ° 50'24.78" East Longitude. The development of people's livelihoods around the Carita area in 2006-2008 was almost 70% of which were traders and services, the rest were farmers, laborers and craftsmen. The area that is the object of administration is located in two villages, namely Sukajadi Village and Sukarame Village,
Carita District. In this area there are facilities and infrastructure to support tourism activities such as hotel buildings, lodging, condominiums, restaurants, parking areas and supporting facilities. The position of the Carita beach area itself is included in the category of domestic tourism within ± 150 Km from the Capital of DKI Jakarta.

The Carita beach area is a low-lying area with a height of about 0 - 200 meters above sea level (asl). Part of this area is in the form of hills that are directly related to Mount Aseupan with slope ranges ranging from 0 - 2%. The air temperature in the Carita region ranges from 22ºC - 27ºC, the temperature in Carita is relatively hot because it is included in the coastal area but in the rainy season it is quite cool because it is close to the hills and mountains of Aseupan. Rainfall is between 2,000 - 4,000 mm per year with an average rainfall of 3,814 mm and has an average of 177 rainy days per year with an average air pressure of 1,010 millibars. The climate in the Carita coast is strongly influenced by the monsoon wind, during the rainy season (November-March) the weather is dominated by the west wind (from the Indian Ocean) which joins the Asian winds that pass through the South China Sea. Whereas in the dry season (June-August) the weather is dominated by many eastern winds which cause some coastal areas to experience drought, especially if the El-nino season.

In 2015, tourism shopping in the Banten region has encouraged the creation of employment opportunities for 121,295 people and in 2016 tourism shopping in the Banten region has encouraged the creation of employment opportunities for 128,452 people. In 2015, employment opportunities in the trade, hotel and restaurant sectors created by tourism activities amounted to 54,458 people or 44.90 percent of total employment opportunities in 2015 and in 2016 employment opportunities in the trade, hotel and restaurant sector were created by tourism activities as much as 57,671 people. From these data, it can be seen the impact of economic improvement on regional income and the increasing demand for labor in the tourism sector. So with the increase in tourism activity, especially in the area around Carita, the concentration of circulation of vehicles will increasingly reach saturation, which is where the condition of the tourist area will be more crowded and crowded. In the design of public beach tourism areas that are expected to be able to further increase the income of regional income and Gross Added Value, so it is necessary to design a vehicle circulation scenario that supports public tourism activities.
2. Issues and Ideas
Macro issues raised in the design of this area are the development of tourism activities in the area around the coast of Carita, Banten. This development leaves the problem of privatization of the coastal area which should be public space. Coupled with the concentration of vehicles that operate in this tourist area is getting full and crowded, especially in the holiday season.

In the other hand from Micro issues, the Carita Beach area is now developing with multiple functions as a tourist area. Starting from the type of tourism object, accommodation, marina, and regional support activities. But these developments without good planning, seen several buildings and supporting facilities for tourism activities built on the border of the beach and public land, for example the parking area and selling souvenirs and souvenirs carried out on the shoulder of the road. So that both directly and indirectly add obstacles to the circulation of vehicle flow. And also as a tourist area does not look like a well-organized area. For this reason, it is necessary to design a seafront lane that can support activities in the tourist area of Carita Beach Banten.

3. Planning Methodology
In this developing of Carita Beach area, in general the method used is the synoptic (rational) method supported by several other approaches in the stages of analyzing data. Synoptic methods are chosen because of the nature of this method which is systematically the process starts from searching the background, collecting data and analyze data, formulating potentials and problems, producing design concepts and criteria, making a design and then assessing the design.

![Figure 2. The stages of design method.](image)

4. Design Principles
The following are the design principles of the Carita Beach tourism area that are adapted from normative criteria, site potential and stakeholder preference analysis.
1. Restoring the function of the region as a public space by growing the tourism economy.
2. Develop mixed-use functions in accordance with regulatory provisions that apply to buildings in each zone of the sub-district of the region.
3. Creating regional permeability to open space and making waterfront areas an orientation of the building period and regional attraction.
4. Generating recreational activities with local cultural arts as tourist attractions and adding new functions as stimulants.
5. Connecting between sub-district zones with a good circulation system and creating an articulation of the appearance of coastal tropical buildings and applying elements of local architecture.
6. Sharing public open spaces with different functions and themes that are multifunctional and recreational.
7. Creating pedestrian lines that are safe, comfortable and attractive complete with street furniture.
8. Designing an effective and efficient circulation system and integrated with the city transportation system and parking area.
9. Develop an attractive information system design in accordance with the environmental context and apply Banten locality elements.

5. Design Concept of District
In the design concept, the Carita Beachside tourism area path refers to the design element as a city by Hamid Shirvani, including the concept of land use, the concept of integration with the area, the concept of time and building, the concept of functions and activities, the concept of vehicle circulation and parking, pedestrian track concept and open space concept and green layout.

5.1. Concept of land use
In the concept of land use describes the pattern of relations between the center of activity with circulation or movement in the region. Based on the function of the area to be developed as a tourist area, it is necessary to add land functions. The function will support tourism area activities including commercial functions, cultural functions and education, recreation and entertainment, as well as occupancy. In the development of this area, it will be carried out with a stage scenario in accordance with the priority level of its interests in the development of the region as a whole, these stages include:
1. Restoring the function of the coastal area as a public space and increasing access to the coast.
2. Development of road infrastructure and tourist support facilities to support regional economic activities.
3. Distribution of regional sub-districts and structuring of facilities in it as stimulants of regional activities. Among them are the tourist center, residential sub-district, recreation and entertainment sub-district, and cultural sub-district and education.

The division of zoning in the area is divided based on the orientation of the coast. In the coastal zone until the road boundary is functioned as a public area, then the next zone is semi-public, and the next zone is more private. Sub-district division system is needed with each function that supports tourism activities. Based on the provisions of the applicable regulations, the Building Base Coefficient (BBC) set for the Tourism Area is 50% of the design area, then the distribution of the sub-districts is as follows:

Commercial (Tourist Center), this sub-district acts as the center of the Carita beach tourist area. This zone is also an area that connects residential areas with coastal tourism activities.
1. Residential, this sub-district acts as a support for tourist accommodation facilities and new settlements in the form of Condotels, resorts, villas & cottages.
2. Recreation and entertainment, this sub-district accommodates recreational activities, by combining natural and artificial tourist attractions.
3. Culture and Education, this sub-district accommodates tourism activities that are research and learning about the environment and local culture.

![Figure 3. Area concept design.](image)

Each sub-district has different functions from each other. In each sub-district, implementing mixed-use functions in buildings, using the ground floor as a public and commercial function will increase the permeability of the area and be more secure so that activities in the area can last 24 hours.

5.2. Concept of district linkage
In each sub-district must be related to both the regional structure and the visual appearance of the building. The concept of regional integration consists of a visual linkage facade of buildings where there is a visual link in the harmony of architectural styles of buildings that characterize tropical beachside buildings. Some landmark buildings are expected to apply elements of the local architectural style. Structural linkage is the linkage between building structures in the area taking into account the permeability of the area utilizing vehicle accessibility systems and pedestrian lanes with water edges as their orientation.

5.3. Concept of building mass
The concept of building refers to the principle of elements forming the image and identity of the region with the coastal area as a consideration of the orientation of the area and the intensity of the building.

1. Building Intensity and Skyline
   Building Intensity concept in the area is based on the function of the sub-districts. The composition of the building towards the shore will be lower and the density will be lower. This is arranged in more detail in determining of the KDB rules, KLB, and building height.

2. Building Mass Orientation
   In accordance with the design topic, in terms of area and building in principle, utilizing the waterfront area as the orientation and main attraction, both the beach and river. This orientation is also a solution to the local climate and also the completion of the mitigation principle (the building’s position is perpendicular to the direction of wave and wind)
5.4. Concept of activities

Activities in the area are divided based on the theme of each sub-district. The concept of the activity applied is to harmonize recreational, sports and residential activities in one tourist area. The sub-districts include:

1. Sub-district Commercial
   - Tourist Center
   - Shopping Center
   - Culinary Center
   - Snacks and Souvenir
   - Market
   - Restaurant and Café

2. Sub-district Occupancy
   - Condotel
   - Hotel dan Motel
   - Guest House
   - Resort
   - Villa dan Cottages

3. Sub-district Recreation
   - Beach and Watersport
   - Theme Park
   - Outbound
   - Marina dan Beach
   - Restaurant and Café

4. Sub-district Education and Culture
   - Museum Krakatau
   - Ocean Research Center
   - Art Studio and Cultural.
   - Auditorium

5.5. Concept of circulation of vehicles and parking area

The concept of vehicle circulation arrangement is aimed at facilitating achievement, fulfilling the need for traffic generation, linkages to the region, and also as a strategy to increase capacity or land value. In this case, making a road hierarchy system in the form of a by-pass line crosses from north to south to the location of the area, and also crosses from east to west with the river as its orientation. Whereas the existing road on the coast has been changed to become a beach road, this route is closed to vehicles at 6:00 p.m. to 24:00 p.m. Vehicle track arrangement The principle is to slow down the speed of the vehicle with a traffic calming system, as well as providing traffic signs and road markings. The public parking area utilizes a coastal border area that accommodates both private vehicles and tourism buses. At some points there is also on-street parking provided with limited parking capacity and time. Besides that, in each lot also provides parking for the visitors of the plot.
5.6. **Concept of Pedestrian Area**

The nature of tourism activities is walking so that the pedestrian lane in the area is the main liaison, then all areas in the area will be connected to each other's pedestrian lanes. The main principles applied are safe and comfortable. Safe from the threat of motorized vehicles completed by differences in height and material differentiation. Convenient when used by tourists walking in the area, calm, attractive with its street furniture, and allows access to the building. Pedestrian lines must also be integrated with other public functions such as parking areas, public transportation access. The pedestrian route also acts as the main attraction in the form of promenades along the coast.

5.7. **Concept of open space and green area**

The concept of open space in the region is an approach to the problem of land privatization, restoring the function of the waterfront as a public open space where there can be a process of social interaction between communities or as recreational facilities. This public space can also be a generator of economic growth within the scope of each lot by functioning the ground floor as a public activity. Provide open space at every maximum pedestrian distance of 300-400 meters or around 10-15 minutes on foot. While the concept of green governance in the area is as a buffer for the lungs of the city and water catchment areas, shade, and directors.
Open Public Space in the area consist of:

a. Major open space, this open space is more dominant, active and recreational. Incorporate elements of public art, sculpture and water features as an attraction. This public space is located on: the beach promenade, river walk, festival / cultural park, commercial strip, as well as open spaces available in each sub-district.

b. Minor open space, this open space has a smaller of service. Which is more like transition park, parking area or open space in each lot

c. Green belt, is a green open space that is more passive to function as urban forest and water catchment area.

d. Green strip, this green space serves as a shade on the pedestrian path and is direct.

5.8. Concept of signage and information management

The concept of information management in the area is divided into several groups of information, including information about activity nodes in the form of directions to places and supporting facilities in the area such as banks, pharmacies, security offices, etc. Next is information about activities in each sub-district, and information about activities in open spaces in the form of information on recreation and support areas. Applying sculpture elements of locality as a marker with the selection of materials and colors that are appropriate to the coastal climate.

6. Conclusion

In the concept of developing the Carita beach area as a public space, it can be seen that a waterfront area can develop by carrying out "spirit of publicness", whatever functions and facilities can be adapted as public spaces. The division of the sub-district is also a strategy of equitable activities in the Carita beach tourist area both in the West area (coastline) and the East (residential) area as well as the North-South area (gate area). For this reason, a concept of vehicle and pedestrian circulation is needed to facilitate achievement as well as a strategy to increase land value.

In certain zones the area is fully available as a public space in this case is a coastal area as a place of recreation. There are also certain zones in the form of private facilities which also provide public spaces such as accommodation facilities on the upper floors and the basics are provided by public facilities such as restaurants, commercial areas, and so on. This situation can also bring the region to life up to 24 hours so that regional security and order can be maintained. By applying the concept of permeability of public access, the private sector indirectly benefits, ease of access can increase the supply of needs for accommodation and commercial facilities, these facilities will be more accessible for tourism.

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