

# INTEGRATION OF RURAL LANDSCAPE CHARACTERS OF THE PAHANG-TERENGGANU COASTAL ROUTE FOR TOURISM ROUTE PLANNING

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## ABSTRACT

*Landscape characters of a place are shaped by its natural geographic conditions and alterations from human activities. The sceneries found along a certain route can signify the image of a place and enhance tourist experience. This study addresses issues regarding the fragmentation and disconnection of landscape characters that have potentials to be planned and integrated, so that a practical approach can be used by relevant authorities to plan the tourism route and sustain the rural landscape characters. The aim of this paper is to delineate the coastal landscapes characters along the Pahang-Terengganu east coast route. The methods used for this research are content analysis from various literature reviews to derive a conceptual framework, field observations and assessment of the landscape characters found along the Pahang-Terengganu east coast route, and describing the landscape characters from aspects of natural factors and cultural social factors. The findings of the study revealed that the coastal landscape characters for the Pahang-Terengganu stretch are highly influenced by human interactions with the natural resources that are native to the area. The dominant landscape characters that are visible along the routes are composed of natural and cultural settings such as vegetated areas, the seaside and traditional villages, as well as industrial and commercial areas. Future plans and developments need to integrate the natural and cultural landscape characters of the route, towards establishing the Pahang-Terengganu coastal route as one of the scenic tourism routes in Malaysia.*

**Keywords:** Rural landscape characters, Tourism planning, Coastal landscape

## 1. INTRODUCTION

Rural landscape characters in the coastal areas of Pahang and Terengganu are a splendid asset that can be used to promote the east coast region while elevating the income of the local people through tourism activities. The scenic beauty of the rural landscapes can be used to promote and create better or stronger tourism attraction activities such as cultural, traditional and educational tourism. The rural tourist experience can be enriched by offering unique rural landscape settings and integrating culture-based and nature-based activities that are significant to each local area. Rural landscape characters differ from one place to another as they depend on the geographical character of the area, natural features and the local's way of life. In order to create a rich tourism experience, it is crucial for landscape architects, tourism planners and the local governments to identify the uniqueness of rural landscape characters and integrate them with the existing tourism attractions.

The Federal Government of Malaysia has established a tourism corridor which is called as the Northern Corridor, focusing on the states of Penang, Kedah, Perlis and Perak, situated in the northern part of Peninsular Malaysia. The Northern Corridor was planned in line with the National Rural Physical Planning Plan 2030 (National Rural PPP 2030) that focuses to integrate spatial planning with the rural development in Malaysia. The National Rural PPP 2030 aims to strengthen the inclusivity towards a fair society by transforming the rural areas and elevate the welfare of the rural community parallel with the 11th Malaysia Plan (Economic Planning Unit, 2015). The notions are in line with the second mission of the National Landscape Policy (National Landscape Department, 2011) which is to ensure the natural resources are used

optimally, maintained, preserved and conserved by sustainable management systems, especially for tourism purposes and heritage preservation. Back in 2008, the East Coast Economic Region (ECER) Master Plan was approved by the Government to guide the regional transformations of the coastal states of Kelantan, Terengganu, Pahang and the district of Mersing in Johor (ECERDC, 2018). These plans signify that route developments are critical aspects of the regional corridor developments as they can physically connect and integrate different states. However, some of the landscape characters and attractions are segregated by interstitial developments that cause the coastal route image to be less unified and lack integration. Rural attractions are seldom being tied together to facilitate and encourage multi-destination visits (Hamzah and Ismail, 2008). As a result, it leads to less attractive journey for tourists to experience when they engage with self-drive tourism. Parallel to the nation's agenda to become the top 20 country in the economic development, social and innovation advancement, it is clear that rural areas also play a vital role in helping the Government to fulfill its missions. Despite the various agendas and countermeasures outlined in the policy, National Rural PPP 2030 has not listed specific measures to assess rural landscape characters as the existing checklist delivered in the Rural Tourism Master Plan (Ministry of Culture, Arts and Tourism, 2001), which is conceivably outmoded.

## **2. THE FORMATION OF MALAYSIA LANDSCAPE CHARACTERS**

Malaysia resides in the Sunda shelf, and tectonically inactive. It is strategically located in seismically stable plate which protects the country from most major natural disasters. The setback nevertheless, is that it cannot shield the country from flooding and landslide risks due to its tropical climate (Cavendish, 2008). This climatic condition allows Malaysia to home a wide range of geographical landforms, rainforests and landscape abundance. Today, the number of populations in Malaysia as in 2016 is 28.7 million in which 68.8% of them are from the Malay ethnics, while Chinese and India is at 23.4% and 7% respectively in the context of major ethnic groups (Department of Statistics, 2017). A study shows about 25% of Malaysian resides in rural areas known as Kampung (village, or house clusters) (Lockard et al, 2017). Due to the geographical condition, most of these villages are underdeveloped. They are sparsely populated as a result to lack of infrastructures and necessities. As a result, some people choose to leave the rural area for urban settings, which provide more infrastructures. Study by Farooq (2012) indicated that

homogeneity is commonly collective in the rural areas due to the following reasons:

- (a) Their main profession in rural residents are self-sustaining which are agricultural and nature-based;
- (b) Choice of apparels;
- (c) Informal way of life;
- (d) Strong relationship between the communities;
- (e) Lack of transportation and communication resources;
- (f) Low rate of education and modern technology because hereditary occupations;
- (g) Very minimal of pollutions;

However, the custom and culture might differ between the societies itself due to different ethnicity and cultural root. In regards to the economic situation of Malaysia currently and in the past, it was mainly determined by politics where ethnic groups were differentiated.

Landscapes play a salient part in representing the image of a country other than the language and religions professed by the populace (Shuib and Hashim, 2011). In terms of settlement, the landscape settings in the particular area are shaped and altered to suit and cater human necessities to survive. Generally, the landscape setting in Malaysia was preoccupied with agricultural products comprising of rice fields, coconut groves and rubber plantations. However, the traditional landscape of the country was dominated by oil palm plantation in the early 1970's due to the increasing demand of cooking oils worldwide. Study by Ismail (2005) and Hussain and Byrd (2012) indicated that the natural landscape was mainly inhabited by forests and coastal areas. Rice fields are cultivated in the north-western region and foothills in the east coast of the peninsular, while rubber and oil palm were mainly planted along the west coast of Peninsular Malaysia. It is almost self-sufficient for the people to make use of the resources attributable to the inherited characteristics of a natural and traditional landscape in Malaysia (Hussain and Byrd, 2012). The bounty of natural resources in Malaysia along with its scenic panoramas will

always be ample to be used by the local populations as long as the usage of remains optimised adequately. At present, agricultural activities in the rural areas in north-western region such as paddy and coconut plantations are one of the most grossing economic activities for rural communities due to its relatively flat topography and fertile soil quality. This activity contributes to the picturesque views that can be seen in the rural part of the peninsular Malaysia for instance in the states of Kedah, Selangor and Perak. Rainforests also coexist in the rural landscape such as mangroves and dipterocarp forests which are vital as ecological, aesthetic and economic resources (Abdullah, 2011). In the past, mangrove woodlands serve as timbers and charcoal productions for the rural inhabitants. However, at present, most mangrove forest areas in Malaysia are reserved and under protection due to the number that has depleted exponentially in the recent years. Meanwhile, the dipterocarp forest serves as provider for food and medical supply as they are occupied with forest animals, fruits and herbs. Therefore, it is clear that the unique and distinctive characters of the rural landscape settings in Malaysia are important assets that must be protected and optimised by the relevant agencies. Due to the continuous modernisation and extensive development happening throughout Malaysia, preservation of the rural areas must be contained in order to protect the natural resources. Preserving rural landscape is crucial as to protect natural, historical heritage thus stimulating local economy simultaneously.

## 2.1 Rural Landscapes Characters

The rural landscapes are comprised of diverse tangible and intangible characters and it is vital to classify them through several groups. Simensen et al. (2018) dictated that rural landscape characters can be divided into five categories which are the bioclimatic landscape variables, geo-ecological landscape variables, ecological landscape variables, land use variables and socio-cultural landscape variables. On the other hand, Swanwick (2002) pointed out that landscape can be annotated through integrated character types which are landscape character survey and analysis, biodiversity, historic characters, water and air quality and recreation, while Tudor (2014) is direct in categorising landscape through natural factors, cultural or social factors, cultural associations and perceptual and aesthetic factors. Study by Jaszczak and Zukovskis (2011) stated that the elements of rural landscapes can be grouped into farm building use, natural potential and agriculture land, cultural elements, historical objects, technical objects, greenery areas and rural gardens and visual elements. Shuib and Hashim (2011) divided rural characters into four themes: 1) scenery, settings and recreational meanings, 2) ecological and natural landscape meanings, 3) historical and socio-cultural experience, 4) rural setting, people and culture. Therefore, it can be suggested

that landscape characterizations is influenced by perceptions and experience as all the characters may be classified in various ways depending on the emphasis or context of the study. They typologies of the physical features are commonly described by the landform, hydrology, vegetation, land use patterns and settlement patterns, spatial organisations and infrastructures (Queenstown Lake Council District, 2017; Zakariya et al., 2017; Tudor, 2014). This can be annotated that the main product of landscape characters are dominated by physical attributes which it is important to be assessed by visual and sensory perceptions and preferences. In relation to landscape preference and experience, views, scenic route, coherence, disturbance, imageability or sense of place, visual scale, naturalness, historicity and heritage and cultural significance are the terms used to assess user preference and experience (Ode et al., 2008; Queenstown Lake Council District, 2017; Tveit et al., 2006; Zakariya, 2017; Geltmeyer, 2011; Tudor, 2014). Last but not least, Lv et al. (2017) emphasised that the product of landscapes settings with human interactions are security and convenience, rural landscape, residential life, natural environment and intangible cultural heritage. Based on the studies highlighted above, it can be summarised that rural landscape depends so much on its natural settings because different environment caters different human needs. Experiencing rural landscapes and its characters is crucial to determine its importance to ensure that the distinctive features are remain celebrated and preserved. Scazzosi (2013) mentioned in his study that the values of rural landscape can be sustained by establishing general notions about its management, conservations and knowledge. It is also encouraged to promote awareness by doing collaborations with multidisciplinary sectors including local communities and public-private associations (Scazzosi, 2013; Federal Department of Town and Contry Planning, 2017).

## 2.2 Coastal Landscape Characters

Coastal areas can be defined as an intersection point between the sea and the mainland. Pungetti (2012) describes coastal landscapes as an outline for landscape and seascape in which it is constituted from the interaction between coast, sea and adjacent waters. Study by Hill et al. (2001) elaborated that the concept of seascape can be translated into the views or settings to the sea. Despite richness in biodiversity, coastal areas hosted the most fragile ecosystems in the world namely the mangroves and coral reefs (Lakshmi and Shaji, 2016). The protection of coastal areas are necessary as it is a significant part of the nature-based tourism attractions, bestow scenic views and endowed with rich landscape resources. Balasubramanian (2011) listed five processes and landform of coastal landscapes. Firstly, is the profile of coastal zone that is divided into three categories: backshore region, foreshore region and offshore region, followed by waves, tides and currents, coastal

geomorphic processes, erosional landforms and depositional landforms which are basically subjected as geological oceanography. The quality of coastal landscapes varies depending on a particular setting, in which it is moulded by the sea actions, speed of the waves and type of rocks compositions. The stretches of coastal landscape settings can provide a marvellous scenic settings that is important to promote the natural resources surrounding the area. In terms of characterizations, coastal landscapes are not distinctive to the general rural landscape characterizations. Shelbani (2017) suggested that the study of coastal landscape can apply the standard Landscape Character Assessment (LCA) method. First, three components of the seascape unit (nearshore, foreshore, and backshore) need to be divided into types or areas of distinctive, recognisable and common characters. Then, mapping all of the distribution of these units of common landscape character. Wahab et al. (2018) recommended that the LCA is applied in which the characteristics of landscapes are identified through site inventory and observations, followed by mapping through segments of selected or identified attributes. Based on the literature review conducted, this study summarises the pertinent components of rural characters in the coastal area in three major categories, which are the natural factors, cultural or social factors and key scenic route. Figure 1 outlines the conceptual framework of rural landscape characters that can be used as a guide to document and assess the coastal route.

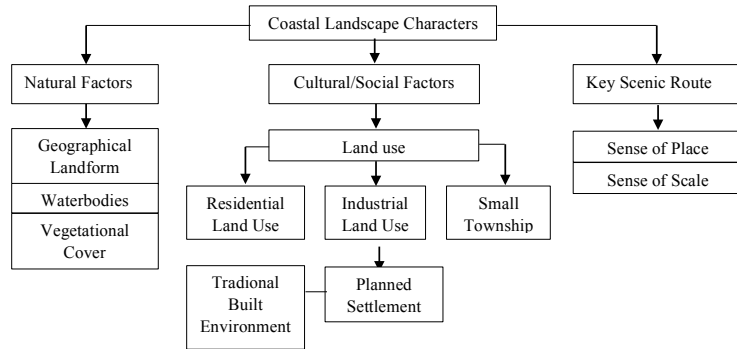


Figure 1: Framework for Coastal Landscape Characters

### 3. METHODS

The site selected for this study is Federal Route 3, one of the oldest roads in Malaysia, which connects the southern region to the north-eastern region of the country through the coasts. The coastal route stretches from Johor, passing through Pahang and Terengganu and ends in Kelantan. The scope of the research only focuses on the Pahang-Terengganu stretch, due to its abundance of rural attractions, which is fundamental in determining the most optimum route. Furthermore, the limitation of the study area serves to give a focus to the study as the Pahang and Terengganu coastal areas share the similar geographical characters. This study has adopted a qualitative approach to extract the landscape characters along the Pahang-Terengganu coastal route, through methods of observation and assessment of recorded checklist of the dominant landscape characters based on the framework for coastal landscape characters as elaborated in the previous section. The observation was conducted for two weeks on August 2018 and 1 week on January 2019 according to the checklist items (natural factors, cultural/social factors and key scenic route), documented in terms of the visible characters, and interpreted through descriptive analysis of landscape characters' assessment. Findings on the natural factors from the observation were validated by comparing the documented landscape characters with land cover map of the areas, while findings on cultural and social factors were sourced from actual photographs captured along the route and described based on their visible characters. The site is segmented into six areas: 1) Gebeng, 2) Cherating, 3) Kemaman, 4) Kerteh, 5) Dungun, and 6) Marang (refer Fig. 2). The total distance of the route from Gebeng to Marang is about 176 kilometres. Data from the observation were documented through descriptive field notes and photographs.

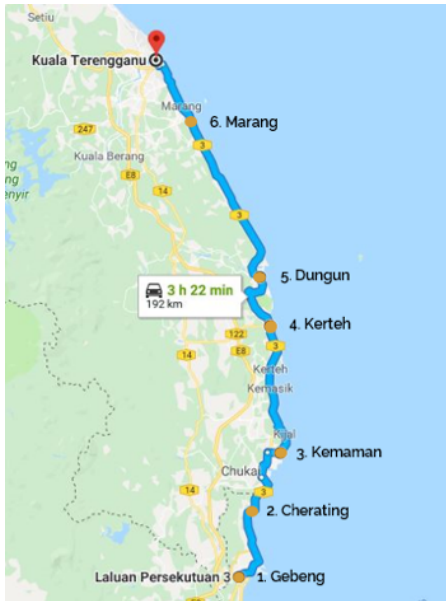




Figure 2: The selected site study, Pahang- Terengganu stretch, starting from Gebeng to Kuala Terengganu.  
Source: Google Maps.



#### 4. RESULTS

Findings from the data collection revealed that the coastal landscape characters for the Pahang-Terengganu stretch are highly influenced by human interactions with the landscape settings (refer Table 1). While the most dominant features of the landscape settings throughout the segments are the vegetated areas and the coastal areas, the landscape characters along the route have been mostly intervened and altered due to manmade activities such as the industries that can be found in the area of Gebang, Pahang and Kerteh,

Table 1: Coastal Landscape Characters Findings

Segment	Landscape Characters Findings	Images of the Area
Gebeng	<p><b>Key Scenic Route</b></p> <ul style="list-style-type: none"> <li>Mainly featured with industrial landscape and heavy machineries</li> <li>Rural settings are also dominant</li> </ul> <p><b>Natural Factors</b></p> <ul style="list-style-type: none"> <li>Dense street planting, coconut plantation as scenic backdrop for traditional houses</li> <li>Some barren land also visible</li> </ul> <p><b>Cultural/ Social Factors</b></p> <ul style="list-style-type: none"> <li>As to occupy the high number of people working on the industrial site, the residential areas are visible</li> <li>In some areas, the traditional houses or 'kampung' are present but it is in a scattered form</li> <li>Basic necessities are available but infrastructures are not adequate</li> </ul>	
Cherating	<p><b>Key Scenic Route</b></p> <ul style="list-style-type: none"> <li>Tourist attractions: full of infrastructures to accommodate tourist's needs</li> <li>Has a huge number of food stores to sell local delicacies such as <i>keropok-lekor</i> and <i>satar</i>, which represent the local resources</li> <li>Beaches are sufficient to provide a lot of tourism activities such as glamping, windsurfing</li> </ul> <p><b>Natural Factors</b></p> <ul style="list-style-type: none"> <li>Hills and coconut plantations act as a stunning backdrop</li> <li>Mangrove is present in waterbodies</li> </ul> <p><b>Cultural/ Social Factors</b></p> <ul style="list-style-type: none"> <li>Rural township, the infrastructures is not sophisticated but proper to cater the needs of the locals and tourists</li> </ul>	

Segment	Landscape Characters Findings	Images of the Area
Kemaman	<p><b>Key Scenic Route</b></p> <ul style="list-style-type: none"> <li>• Heavily surrounded with industrial sector, which disrupts the sense of scale and scenic quality</li> <li>• Can be considered as township: ample utilities, amenities and facilities</li> <li>• Various characters and splendid natural landscapes</li> </ul> <p><b>Natural Factors</b></p> <ul style="list-style-type: none"> <li>• Coconut plantation and mangrove landscape mainly inhabit the area, and some small hilly areas are also visible</li> <li>• Beach as waterbodies cater a lot of leisure and fishing activities</li> </ul> <p><b>Cultural/ Social Factors</b></p> <ul style="list-style-type: none"> <li>• Developed settlements, lack of heritage and cultural settings</li> </ul>	
Kerteh	<p><b>Key Scenic Route</b></p> <ul style="list-style-type: none"> <li>• Dominated with Petronas petroleum processing terminal as a landscape giving off sense of grandeur</li> </ul> <p><b>Natural Factors</b></p> <ul style="list-style-type: none"> <li>• Limited vegetation and <i>Rhu</i> trees as a typical street planting</li> <li>• Striking mountains as a prominent backdrop and sandy beach as waterbodies</li> </ul> <p><b>Cultural/ Social Factors</b></p> <ul style="list-style-type: none"> <li>• Developed areas with adequate facilities</li> <li>• Industrial areas and township is dominating the routes while settlements are located far from roads</li> </ul>	

Segment	Landscape Characters Findings	Images of the Area
Dungun	<p><b>Key Scenic Route</b></p> <ul style="list-style-type: none"> <li>• Natural landscapes are the dominant character of the site</li> </ul> <p><b>Natural Factors</b></p> <ul style="list-style-type: none"> <li>• Mangroves, protected forest and protected paperbark swamp</li> <li>• Most of the route settings is vacant and dominated with barren area and bushes</li> </ul> <p><b>Cultural/ Social Factors</b></p> <ul style="list-style-type: none"> <li>• Basic necessities are available</li> <li>• Stall selling goods visible along the route</li> <li>• The people depend a lot on the road to commute and conduct business activities</li> </ul>	
Marang	<p><b>Key Scenic Route</b></p> <ul style="list-style-type: none"> <li>• The main feature of this area is the beach, and the scenic setting is used as tourist attractions and for evening activities</li> </ul> <p><b>Natural Factors</b></p> <ul style="list-style-type: none"> <li>• Coconut plantation and open areas are the main landscape features</li> <li>• Patches of corn plantation are visible at the side of road</li> </ul> <p><b>Cultural/ Social Factors</b></p> <ul style="list-style-type: none"> <li>• Stall selling goods is visible along the route</li> <li>• The people depend a lot to the road to commute and conduct business activities</li> </ul>	

Terengganu, and local settlements of traditional villages, new housing areas and commercial buildings that are sparsely distributed. The landscape settings of east coast are also dominated with natural resources that are geographically unique to the area. For example, the presence of coconut plantation along Cherating and Kemaman segments indicates the proximity towards seas and mangrove forests, protected forests and paperbark swamp are native to the area. On top of that, the striking highlands become the borrowed landscape that is located closely to the beaches and the sea. In terms of the cultural aspect, the landscape settings of rural areas in the east coast have made people adaptive to its surrounding. The use of the vernacular resources, for example, the traditional houses that can be found in the area of Marang, and keropok lekor (fish-based snacks) that derive from fishery activities, show how the geographical characters influence the locals' way of life. The high quality of sandy beaches become opportunities for business providers to cater for the high demand of tourism activities on and even introducing new ideas to accommodate recreational needs for example 'glamping', ATV and horse riding. This study found that along the route, the dominant visual landscape characters are made of natural and cultural settings, with industrial, commercial and settlement areas distributed in between these settings. The stunning views that are prominent in these particular areas must be preserved and integrated into future developments, so that the cultural heritage and scenic characters of coastal landscape remain visible to be experienced by locals and tourists.

## 5. CONCLUSION

The natural settings of rural areas have made people become adaptive of its surrounding and influence the types of activities of the area. Human interaction with the land changes the characteristics of the existing natural landscapes. Consequently, the changes shape the rural landscape characters. Based on the findings, some of the human activities such as traditional settlements, local products and tourism activities enhance the coastal landscape characters because these activities derive from optimizing the natural resources of the area. However, the expansion of industrial areas, commercial areas and on-going constructions that can be found along the route cause the scenic views to be disrupted because the natural settings are no longer visible and the landscape character has diminished and reduced to only roadside streetscapes. The coastal landscape characters are determined by natural factors in which the multifaceted nature of rural landscapes allows people to interact and experience their natural surroundings. The combination of cultural and social factors of rural settlements and its components are integral in shaping and strengthening the genius loci of the particular place. As the land uses change, visitors can see and experience different landscape settings as they drive along the Pahang-

Terengganu coastal route. Thus, the enhancement of the coastal landscape characters along the route is necessary to enhance the overall scenic landscape of the Pahang-Terengganu route. This study recommends stakeholders to use findings from this research for future plans and development by incorporating and reintroduce the existing landscape characters of the area, and harmonizing it with new developments. Certain viewpoints, vistas, natural backdrops and cultural sceneries should be preserved and taken into consideration when any projects are being undertaken. Furthermore, a rich landscape character can help in sustaining the tourism industry by offering a unique experience and sceneries along the route, as well as developing the rural economy. This study concludes that the integration of the rural landscape characters into the coastal tourism route planning (as illustrated in Figure 1: Framework for Coastal Landscape Characters) can be adopted and adapted in other states or countries so that a richer tourism experience and a better quality regional destination image can be offered.

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