

SCENIC ROUTE QUALITY: PRESERVING THE NATURAL AND CULTURAL LANDSCAPES ALONG LOCAL ROAD IN KUALA SELANGOR, MALAYSIA

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ABSTRACT

By nature, scenic roads, have considerable potential to protect and connect landscapes through their ecological, recreational, and aesthetic value. The dramatic development of the surrounding land has presented challenges for the scenic roads, necessitating public awareness of the value of beautiful routes in rural areas. The study aimed to preserve the aesthetic value and cultural, historical, and environmental qualities of country roads. The study was conducted along the Tanjung Karang to Sabak Bernam local road. The view of the natural elements made this area famous for tourism and classified it as a rural area. Mixed methods such as observation, photographic inventory, and surveys were used to collect primary data. The results confirmed the sense's impact on perception, focusing on naturalness, attractiveness, vividness, unity, and emotional involvement in the picture. The average ratings out of 40 were: vividness 4.39, naturalness 3.73, attractiveness 3.37, and unity 3.61. Henceforth, the route will be more appealing, sustainable, and driver-friendly, while maintaining scenic beauty and improving regional aesthetics and environmental standards.

1. INTRODUCTION

In a rural area, scenic route quality is crucial and one of the key factors in drawing tourists. The road's landscape and view greatly influence tourists' perception of the road. This research concentrated on the aesthetics, visual quality, and perception along the road, aiming to enhance our understanding of the conservation scenic routes and establish criteria for planning rural roads for conservation. Additionally, picturesque pathways influence economic growth (Alamgir et al., 2017). People will use the road to travel for work, business, and pleasure. This research primarily took place on the Tanjung Karang-Sabak Bernam local road.

Users from all over the region connected the scenic area to the surrounding natural scenery. The road's natural and cultural attractiveness encouraged users to appreciate it. By nature, scenic highways have enormous potential for landscape protection and connectivity through their ecological, recreational, and aesthetic significance. Every rural road should have a purpose and attraction

for travellers, as this will motivate them to use it and increase awareness of the significant value of beautiful routes. According to Kent and Elliott (1995), roads connect key landscape elements in high-scenic locations. Thus, the evaluation perspective aims to assess, describe, and inform the distinctiveness of a landscape in all planning decisions. As a result, it will accentuate a place's unique characteristics, particularly the existing natural and cultural contexts.

The study area's issue stemmed from the drastic development of the land. The land has undergone significant development over the centuries and is currently at a critical stage. It will bring about changes in the economy, aesthetics, society, and surrounding activities. The changes will occur over time (Jaal & Abdullah, 2012). According to Clay and Daniel (2000), issues typically arise with the beauty and quality of scenic routes, highlighting the need for road users to appreciate nature and cultural routes more. The negative influence will not only affect road usage, but it will also reduce the quality of

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the road. As a result, road users may not view the existing natural and cultural landscape as one of the area's attractions, potentially leading to its loss in value.

This study aimed to safeguard the scenic quality of the Tanjung Karang to Sabak Bernam Local Road amid its diverse natural and cultural settings. By examining the relationship between these landscapes, it sought to highlight the importance of preserving scenic views. This is because both natural and man-made elements will help protect these ecological areas, benefitting local communities and tourists (Ismail & Misni, 2022; GLVIA3, 2021; Jaal & Abdullah, 2012). On the other hand, the surroundings will offer a beautiful view and entice travellers to use the route (Antonson et al., 2009). Therefore, it is crucial to maintain the quality of the beautiful roads, as this will increase their values.

2. LITERATURE REVIEW

Jamal (2017) noted that local roads primarily connect locations, serve a secondary role, and generally experience low traffic. Garré et al. (2009) stated that roads historically reflect the movement of people, commodities, and vehicles within the environment. According to Kent and Elliott (1995), scenic highways feature multiple trees or bushes growing alongside the road and roadside corridors with high levels of natural beauty and cultural or historical significance. The quality of these roads is rated based on their landscapes. To protect these picturesque routes, it is essential to value the surroundings. Kane (1981) identified key factors for landscape assessment:

- i. Help priority lists of locations and areas that need protection to preserve our natural heritage.
- ii. To create an aesthetic area and region, one can strategically exploit or direct human influence into the locations with the least aesthetic appeal.
- iii. To assist in tracking the decline in landscape quality for particular locations using routine assessments.

The scenic routes should be preserved and protected. According to Steiner (2012), conservation entails preserving and safeguarding cultural, natural, and unique elements without altering their surroundings, view, or physical characteristics. This study used the term "preservation" to describe the quality of these scenic routes. The study also aimed to preserve the panoramic view, which enhances human movement and attraction within the study area by highlighting the natural and cultural landscapes. The preservation term's goal is to prolong cultural property's existence.

2.1 Scenic Route Quality

Scenic quality blends natural and cultural elements to create a basic landscape pattern (Tweed Shire Council, 2019). These picturesque routes can generate revenue for the locals while boosting the area's aesthetic appeal and identity. Incorporating trees and bushes along the road will further enhance the natural beauty and

cultural significance of the study area. Ismail and Misni (2022) and Sandbrook and Burgess (2015) defined scenic quality as the value of the views during sightseeing measured by factors such as attractiveness, naturalness, vividness, and unity. The preservation sector created the concept of scenic quality to acknowledge the exceptional quality of the scenery and enhance the user experience. According to Clay and Smidt (2004), the scenic routes will facilitate spontaneous sightseeing, foster memories, and attract road users. Besides that, scenic routes also foster a sense of place, particularly if they feature attractions such as paddy fields, mountains, rivers, beach, oil palm field, and local cultural activities that the road users may not encounter in their own area.

2.2 Criteria for Scenic Quality

The "Scenic Landscape Strategy" in Makhzoumi and Pungetti (2008) and Clay and Daniel (2000) explains that scenic quality combines natural and cultural elements that form the fundamental pattern of the landscape and reflect social and land use changes over time. Additionally, the natural quality impacted how the observer perceived the view of the time and environment. A recent survey by Tahoe and Evaluations (2004) also graded the scenic quality using four criteria. Based on the study, each point of view lists vividness, naturalness, beauty, and unity.

2.2.1 Vividness

The vividness element also means clarity or brightness at the site study area. This feature will be graded according to how opposing components (colour, line, design, and shape) result in strong or distinctive patterns or motifs. When everything is vibrant, the surroundings will stand out and the views will be vivid. Places with signboards look more vibrant and help people find their way.

2.2.2 Naturalness

The naturalness factor considers how much of the terrain is in its natural state or how much change emphasises or improves it. The surrounding terrain is explored to determine the site's or region's viewpoint. The naturalness of the surrounding landscape, particularly the topography and trees, may be considered while assessing the element. If the area has a large number of trees, it will provide a clear view of the natural characteristics.

2.2.3 Attractiveness

The attractiveness element is one of the crucial factors in evaluating the view. If a place has something interesting to offer, it can attract people and have a psychological impact. Aside from that, it enhances the aesthetic appeal of the area and creates a sensory-pleasing atmosphere. Similar to the study area, which features a paddy field, cultural activities, and other attractions, the term "attraction" can also refer to the subject matter of the attraction.

2.2.4 Unity

The element of unity measures the extent to which the various landscape components work together to create a harmonious and pleasing visual unit. It ensures that every component creates a cohesive and visually appealing whole. Repetition is a crucial element in creating unity. Plants, colours, and materials can be repeated along the road to create a sense of continuity that unifies everything. One more crucial element in reaching oneness is consistency. This entails keeping the landscape components' style consistent and ensuring that every component complements the unique idea of scenic view.

To put it another way, the study area's elements interact with each other to create a picturesque landscape along the route. It was evaluated in terms of its unique character. In addition, Ksaibati et al. (1994) and Ismail and Misni (2022) have stated that we may characterise and classify a landscape's scenic beauty by analysing five landscape components that give it character and state, as well as influence how we perceive it. These include geographical factors, vegetation, water, wildlife, and changes.

Each component may display characteristics or qualities typically representing outstanding scenic quality. The picturesque qualities play a crucial role in determining the pattern of scenery along the routes. Depending on the individual, the scenery's quality may vary. The vividness of the scenery will attract some people, while its variety and unity will attract others.

Furthermore, the view rating illustrates the general preference for the scenes. The preference for specific locations stemmed from the landscape characteristics of vividness, naturalness, attractiveness, and unity. The previous study defined the landscape as a visible feature, which encompasses physical elements such as mountains, hills, water bodies, rivers, oceans, ponds, and lakes. According to Garré et al. (2009) and supported by Kaymaz (2012), people perceive the landscape as an area shaped by the action and interaction of natural and human factors. Jaal et al. (2013) emphasised that a landscape can also be defined as "what the element on the earth's surface is, which we can see through using an eye."

2.3 Preservation of Scenic Road Areas

Natural surroundings and visual appeal enhance a road's pride and uniqueness, making it stand out. Remarkable vistas, perspectives and picturesque areas boost a community's liveability, appeal, and property value (Zhang et al., 2019). People are drawn to aesthetically beautiful environments, as visual perception significantly influences our sensory experiences. Consequently, this creates opportunities to preserve the unique qualities that make the designated road special. Scenic preservation along the road aims to protect and maintain its unique qualities and character (Eck, 2004). This preservation also

fosters strong relationships with stakeholders along the road, united by a shared interest in the corridor's future. Construction around, on, or given a well-known monument or spectacular panorama may considerably influence whether or not people perceive the area as unique.

3. MATERIALS AND METHODS

3.1 Area of the Study

Tanjung Karang is located 15 kilometres from Kuala Selangor and 82 kilometres from Teluk Intan, while Sabak Bernam is about 67 kilometres and 32 kilometres from Kuala Selangor, respectively. The distance between Tanjung Karang and Sabak Bernam is approximately 60 kilometres, as shown in Figure 1.

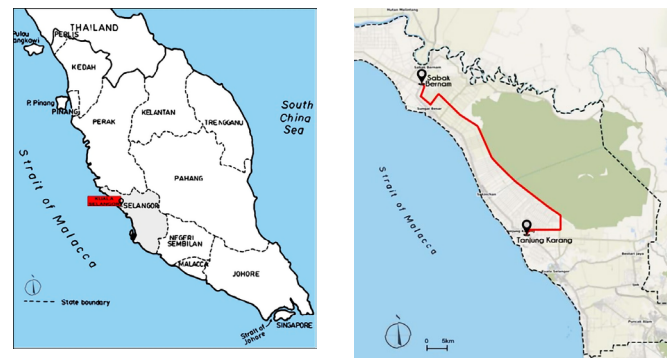


Figure 1: Key plan (left) and location of Sabak Bernam to Tanjung Karang local road (right)

This small town or country road has been a popular destination for eco-tourism due to its stunning views of the surrounding natural beauties. This road was chosen as a case study location since no research has been done on Malaysia's picturesque local route. In Malaysia, the study for the picture square has been done at the expressway from Johor Bharu to Bukit Kayu Hitam by (Jaal et al., 2013). This local route offers substantial advantages over the interstate that other drivers, locals, and tourists have yet to appreciate. The agricultural area, dotted with rice fields, and the numerous homestays near the paddy field area are two of the route's many interesting features. The wonderful surroundings will draw travellers to the road, creating an excellent panoramic perspective.

3.2 Data Collection

Mixed qualitative and quantitative methods were used for collecting primary data through observation, photographic, and questionnaire surveys, as follows:

3.2.1 Observation

This study used an observation survey as its qualitative method. Observation is the systematic collection of physical data while subjects engage in various activities under a particular situation and assess the collected data (Tsfazgi, 2003). Bhasin (2023) stressed the use of observational methods to prevent bias-induced errors during evaluation and interpretation processes.

The data collection method narrowed down the two natural and cultural groups that comprise the chosen element by systematic observation. Moreover, the data collection used specific variables according to a pre-defined criterion. The nine main selection criteria included gentle flat topography, woods, open space, paddy fields, palm oil farms, industrial areas, residential areas, towns, and villages. The chosen elements were used to observe the case study region and evaluate its appeal, vibrancy, unity, and naturalness. The researcher could directly access the research phenomena on-site using this method, which also offers high flexibility for future reference. The researcher also employed an observation procedure around the study locations to identify specific scenic route criteria which could potentially be preserved for inclusion in the questionnaire survey.

3.2.2 Photographic inventory

In addition, the data collection process included a photographic sampling process. Photography is a product of digital databases that help to increase their accessibility to third-party participants/respondents and contribute to ongoing surveys and documentation (Smith, 2019). Clay and Daniel (2000) stated that the photographic view will be collected at each selected location within the study area. Each photo point must have a total of 20 points. Based on Figure 2, the researcher should adhere to the precise photographic position, orientation, and area, capturing two photos at each location, one from each side of the roadway, to ensure the accuracy of the scenic view. The local route from Tanjung Karang to Sabak Bernam would yield a total of 80 photographs. The author's photographs would be placed first in the questionnaire and then in the point area. Two images for both sides of the road were taken for each point.

The technique involved using a digital camera to capture pictures from 7 a.m. to 5 p.m. Photographs were taken at each selected research location or photographic point, chosen for the scenic value. The photographic points were established at intervals of half a kilometre along the corridor, following the methodology outlined by Clay and Smidt (2004) and Clay and Daniel (2000). As long as there were 20 photo points, two images would be taken from each side of the roads at each location.

Finally, the respondents would place the picture in the questionnaire at the designated points and evaluate it. The researcher would randomly select the photo's position on significant elements along the road that have the potential for preservation. This also served to ensure that the photography sampling method was free from bias.

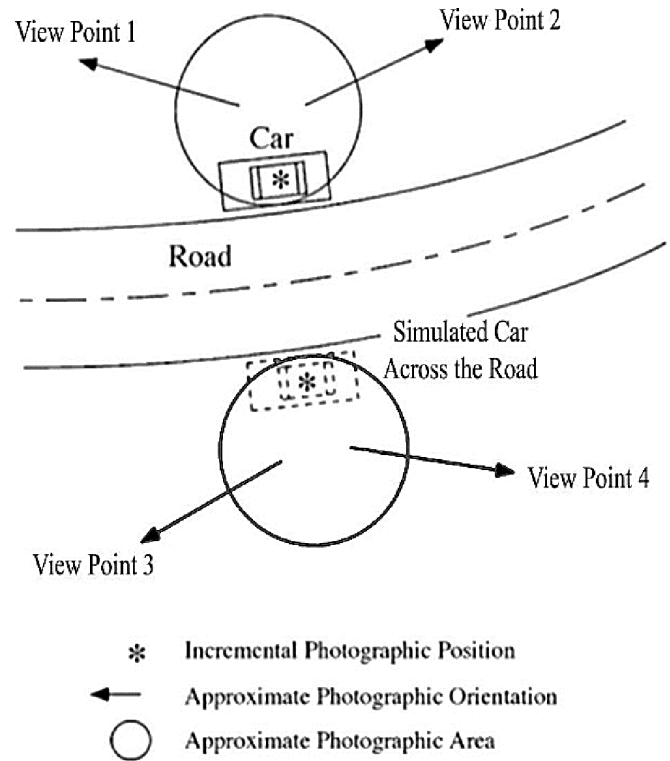


Figure 2: Schematic diagram of photographic sampling procedure (Clay & Daniel, 2000)

3.2.2 Questionnaire survey

This study considered road users/tourists/visitors' active participation; as a result, a questionnaire was constructed with an approach more directly tied to tourists and places of activities (Sheng & Chen, 2013). In other words, this study created a user/tourist-based expectations questionnaire based on actual tourists' opinions, experiences, and fieldwork. Moreover, researchers use questionnaires for descriptive studies with large target populations, making the data gathered ideal (Babbie, 2001). Hence, this study posed questions to the respondents, soliciting their perspectives on various aspects of a scenic view, with the aim of collecting data. The questionnaire survey for this investigation employed a quantitative methodology. The researcher randomly selected 80 regular users of this local road from all states in Malaysia to participate and answer the questions. The opinions presented in the questions would be the respondents' main focus when they rated them. This questionnaire would be supported by the photographs that the researcher had taken. The photos would be arranged in the questions, followed by the points to the pictures, and they would be asked their opinion using a Likert scale ranging from 1 to 5 representing bad, poor, moderate, good, and excellent, respectively.

3.3 Data analysis

Statistical software (SPSS) was used to generate and analyse the data on the distribution of scenic evaluations and the observers'

preferences. Other than that, the spatial analysis results provided the researcher with a measure of how much of the view was visible from the roadways.

As a follow-up, the researcher set up a survey to measure how significantly the road view affected scenic and landscape values. The result marks for five scales of the respondents' opinions on scenic views were referred to as the LAP Conservation Index (LAP CI) (Table 1). As shown in Table 1, LAP CI is used as a protocol and recommended indices in conservation condition classes to determine whether scenic view quality is good, excellent, or otherwise (Vlami et al., 2019). One of the techniques to verify and determine whether results and claims are relevant is to look at the standard deviation. Statisticians found that the results are relevant when the standard deviation of the measure is greater than the minus 2 SD value or closer to the actual value than the measure smaller than 2 SD (Ondari & Gekara, 2013).

Table 1: Quality classes proposed for the current version of the LAP Conservation Index (LAP CI) (Vlami et al., 2019)

Quality Class Condition	Condition description	LAP CI	Mapping Colour
Excellent	Favourable preservation condition. Natural/ semi-natural landscape or exceptional quality cultural landscape with a high degree of natural elements and features.	≥ 85	Dark Green
Good	Favourable preservation condition. Near natural or cultural landscape with slight degradation; high-quality urban or peri-urban landscape.	70-84	Green
Moderate	Unfavourable preservation condition. Moderately degraded landscape with various modern changes and pressures.	50-69	Yellow
Poor	Unfavourable preservation condition. Degraded landscape. Moderately degraded urban or semi-urban area.	31-49	Orange
Bad	Unfavourable preservation condition. Severely degraded non-urban landscape or degraded cultural/urban landscape.	≤ 30	Red

4. RESULTS AND DISCUSSION

This section provides an explanation of the study's findings and a discussion of the anticipated findings:

4.1 Demography of the respondents

The demographic profile of the respondents (N=80) includes their state of origin, gender, and degree of education. While 30.0% (n=24) of the respondents were from the East Coast Regions, which include Terengganu, Pahang, and Kelantan, 33.7% (n=27) of the respondents were from the Central Regions, which include Selangor and Kuala Lumpur. The respondents are likelier to use the local road from Tanjong Karang to Sabak Bernam. Sixty-one respondents, or 76.3%, were female, while the remaining 19, or 23.8%, were male. 52.5% (n=42) of the respondents had a bachelor's degree as their highest level of schooling. The respondents of all educational levels and geographic origins know the research area's picturesque pathways.

4.2 General knowledge about the scenic route

The survey indicated their knowledge about the scenic route. This section discusses the general knowledge about scenic routes listed

in Table 1. The focus was on the respondents' comprehension and awareness of the significance of scenic routes, environmental factors, and preservation in managing development.

Table 2: Descriptive analysis of general knowledge

No.	Items	Mean	Std. Deviation	Total
1.	The knowledge about the scenic route.	3.0750	0.93829	80
2.	The significance of the beautiful route concerning environmental considerations.	4.1125	0.72903	80
3.	The significance of beautiful road views to drivers.	4.0750	0.79197	80
4.	The best way to control growth is through the preservation of scenic routes.	4.0875	0.74958	80

Table 2 describes the interrelationships among the questionnaire questions; the researcher had conducted an analysis to determine whether these items were interrelated or not. Based on Table 1, each questionnaire question pertained to the overall comprehension of the picturesque journey. The significance of the picturesque route in relation to our environmental components was found to have the highest mean, at 4.1125. The value of the scenic route view to the road users also had a significant impact, as indicated by the mean of 4.0750, and scenic route conservation was one of the greatest ways to regulate the surrounding development, with a mean of 4.0875. The average level of familiarity with the picturesque route was 3.0750. It demonstrated that the respondents have a solid awareness and general knowledge of scenic route preservation.

The researcher examined whether or not these questions were connected in order to describe the relationship between them (Table 3). There was a positive relationship between these questions, which is the knowledge about the scenic route and the importance of the scenic route towards our environment factors with $r=0.247$, $p<0.027$, followed by the knowledge about the scenic route and the importance of the scenic route view to the road users with $r=0.367$, $p<0.001$. Meanwhile, knowledge about scenic route conservation is the best solution for controlling development with $r=0.387$, $p<0.000$. This indicates that scenic routes preservation is the most effective way to manage development. The P-value showed a strong positive correlation between knowledge of scenic routes, their importance to environmental factors, their importance to road users, and scenic route preservation valued at +1.

Table 3: Correlation analysis of scenic route knowledge and awareness

The route items		The knowledge about the scenic route	The importance of the scenic route toward our environmental factors	The importance of the scenic route's views to the road users	Scenic route preservation is the best solution to control development
About the Route	Pearson Correlation	1	0.247*	0.367**	0.387**
	Sig. (2-tailed)		0.027	0.001	0.000
	Total	80	80	80	80

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

The outcome demonstrates the importance of scenic routes in addressing environmental concerns, the value of scenic routes' views for other road users, and the fact that preserving scenic routes is the most effective strategy for managing development while maintaining their value. In other words, when enhancing people's knowledge about scenic routes preservation and protection effectively controls development and raises awareness of the scenic route's environmental importance.

4.3 Visual assessment by the factor

In the visual quality assessments conducted via visual research, the analysis used four elements: vividness, naturalness, attractiveness, and unity. The criteria obtained for each element included landform, vegetation, water, colour, the influence of adjacent scenery, scarcity, and cultural modifications, as shown in Table 4.

Table 4: Visual assessment by the elements and its criteria

No.	Elements	Criteria
1.	Naturalness	Landform Vegetation Water
2.	Attractiveness	Cultural modifications
3.	Vividness	Colour
4.	Unity	The influence of adjacent scenery and scarcity

Table 5 outlines the scale ranges where the LAP Conservation Index (LAP CI) served as a protocol and a proposed index for conservation condition classes. This index was further used to identify the area of excellence, good or poor quality. This protocol could also assess the traditional, natural, and attractive visual aesthetics index. This study conducted visual quality assessments for four elements: vividness, naturalness, attractiveness, and unity, based on the visual research analyses.

Table 5: Quality classes proposed for the current version of the LAP Conservation Index (LAP CI) (Vlami et al., 2019)

Quality Class	Condition description	LAP CI	Mapping Colour
Excellent	Favourable preservation condition. Natural/semi-natural landscape or exceptional quality cultural landscape with a high degree of natural elements and features.	≥ 85	Dark Green
Good	Favourable preservation condition. Near natural or cultural landscape with slight degradation; high-quality urban or peri-urban landscape.	70-84	Green
Moderate	Unfavourable preservation condition. Moderately degraded landscape with various modern changes and pressures.	50-69	Yellow
Poor	Unfavourable preservation condition. Degraded landscape. Moderately degraded urban or semi-urban area.	31-49	Orange
Bad	Unfavourable preservation condition. Severely degraded non-urban landscape or degraded cultural/urban landscape.	≤ 30	Red

4.3.1 Vividness Element

Vividness also refers to the clarity or brightness of the site study area. This element is evaluated based on the degree to which contrasting elements (such as colour, line, design, and shape) form strong or

distinctive patterns or features. This element may demonstrate a seasonal or personal shift along the local road from Sabak Bernam to Tanjung Karang, and vice versa.



Figure 3: Visual value in terms of vividness elements

Table 6: Percentage of attractive in terms of vividness elements

Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *
1	51.3	11	56.3	21	43.8	31	47.5
2	38.8	12	60	22	72.5	32	45
3	46.3	13	58.8	23	71.3	33	55
4	65	14	50	24	61.3	34	65
5	58.8	15	65	25	70	35	55
6	77.5	16	56.3	26	70	36	37.6
7	80.1	17	43.8	27	62.6	37	42.6
8	70.1	18	58.8	28	56.3	38	36.2
9	83.8	19	66.3	29	51.3	39	55
10	82.5	20	53.8	30	53.8	40	32.5

Notes: *Combined percentage total of strongly attractive and attractive for each element at all points

Therefore, it obtained a high rating for the diversity, contrast, and harmony created at some point. Table 6 and Figures 3-4 illustrate that the road exhibits a high level of visual value in terms of vividness elements. The main reason for this element's high points is the rich combination of bright colour, significant design, line, and shape.

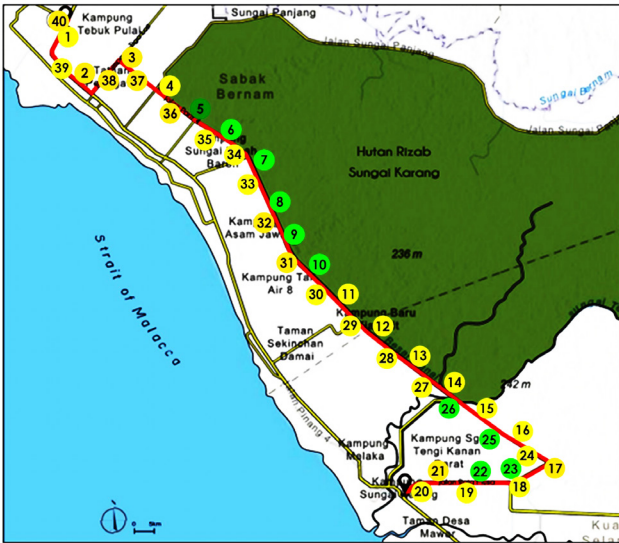


Figure 4: The result of vividness elements by colour codes at 40 points

Table 7: Number of sites (respondents' scores through vividness element) and number of sites (correlation of significant score)

Quality class condition	Number of sites (respondents scores through vividness element)	Number of sites (correlation of significant p-Value < 0.05)
Excellent	1	1
Good	9	9
Moderate	20	20
Poor	10	10
Bad	0	0

Table 7 displays the number of sites per quality class according to the respondents' vividness element scores, as well as the number of sites determined by the correlation of significant scores. For all analyses, a significance level (α) of 0.05 was employed. A p-value ($p < 0.001$) in the result suggests a probable correlation between the variables. Therefore, based on the respondents' assessment, the majority of the respondents rated their quality class as excellent (1 point), good (9 points), and moderate (20 points).

Overall, the outcome of the vivid elements highlights the prominence of scenic routes, showcasing bright green landscape images paired with the skyline, particularly in the agricultural land represented by paddy fields. The elements must be preserved while paying attention to the significant value of scenic routes. Preservation and protection are the best solutions to control development while increasing awareness about the importance of scenic routes for maintaining the environment.

4.3.2 Naturalness Element

The Naturalness Element evaluates how far the landscape retains its natural condition or the degree to which modifications emphasise or enhance the natural condition of the landscape. The naturalness element evaluates elements such as landforms, trees, and scenery. Vegetation plays a crucial role in determining the form and texture of these elements, which can significantly influence perception. In

other words, it also provides the visual variety of the quality of the seasonal changes. In this study, the points of high visual value were visible from Jalan Sabak Bernam to Tanjung Karang. The paddy field area showed an increase in visual quality (Table 8 and Figures 5-6).



Figure 5: Visual value in terms of naturalness elements

Table 8: Percentage of attractive in terms of naturalness elements

Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *
1	51.3	11	61.2	21	51.3	31	61.5
2	32.6	12	66.3	22	77.6	32	57.5
3	72.8	13	56.3	23	77.5	33	46.3
4	73.1	14	55	24	63.8	34	50
5	66.3	15	65	25	81.3	35	53.8
6	66.8	16	53.8	26	73.8	36	32.6
7	80	17	42.5	27	41.3	37	53.8
8	77.6	18	56.3	28	57.5	38	37.5
9	66.3	19	58.8	29	56.3	39	63.8
10	85	20	60.1	30	48.8	40	23.8

Notes: *Combined percentage total of strongly attractive and attractive for each element at all points

Table 9: Number of Sites (respondents' scores through naturalness element) and number of sites (correlation of significant score)

Quality Condition	Class	Number of Sites (Respondents' scores through naturalness element)	Number of Sites (Correlation of Significance: p-Value < 0.05)
Excellent	7	7	7
Good	5	5	5
Moderate	20	20	20
Poor	7	7	7
Bad	1	1	1

Table 9 illustrates the number of sites per quality class, which was determined by the respondents' scores in the naturalness element and the correlation of significant scores. The significance level (α) of 0.05 was used for all the analyses. A p-value ($p < 0.001$) of less than 0.05 in the result suggests a probable correlation between the variables. Therefore, based on the assessment by the respondents, the majority quality class rating of the respondents was excellent (7 points), good (5 points), and moderate (20 points).

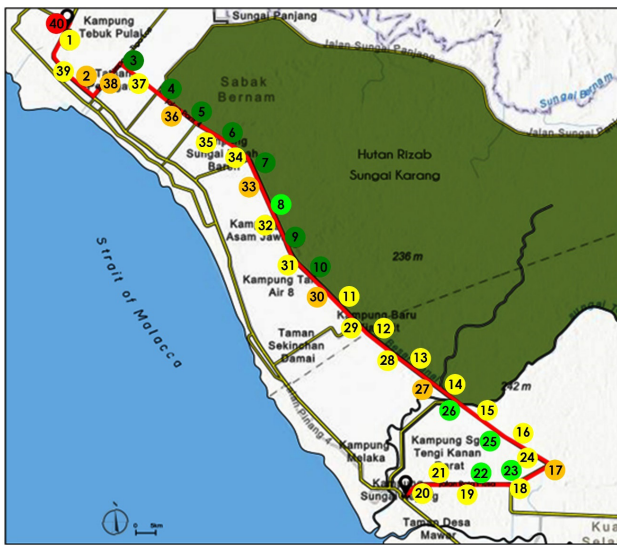


Figure 6: The result of naturalness elements at 40 points by the respondents

Overall, the natural elements' result revealed the most standout scenic routes, with natural landscapes around paddy fields combined with the low terrain areas of water canals covering their boundaries with wild plants. The elements must be preserved while considering the significant value of natural and cultural agricultural scenic routes. In contrast, in point 40, the rate of the view quality for the naturalness was in bad quality. This could be attributed to the absence of natural elements surrounding the area, as well as design factors. Road users usually appreciate natural elements such as natural or planted plants and water. Hence, preservation and protection are necessary to control development while increasing awareness about the importance of scenic routes to maintain their natural, beautiful, and unique scenery.

4.3.3 Attractiveness Element

Attractiveness is one of the critical elements in evaluating the view. The term "attraction" also refers to the object of the attraction itself, such as the paddy field, cultural activity, and other attractions in the study. There was some point seen chiefly in view of depth and width that had been evaluated with the high point in the attractiveness elements. Furthermore, the paddy field is one of the road's most attractive and robust features. The area was considered the highest visual value in terms of attractiveness and will influence those using this road (Table 10 and Figures 7-8).



Figure 7: Visual value in terms of attractiveness elements

Table 10: Percentage of attractive in terms of attractiveness elements

Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *
1	42.5	11	50.1	21	41.3	31	43.8
2	31.3	12	55.1	22	68.8	32	45.1
3	51.3	13	47.6	23	70	33	58.8
4	51.3	14	47.6	24	61.3	34	76.3
5		15	55.1	25	72.5	35	50.1
6	81.3	16	43.8	26	71.3	36	33.7
7	77.5	17	38.8	27	40	37	40.3
8	75.1	18	50	28	53.8	38	33.8
9	78.8	19	50.1	29	51.3	39	53.8
10	77.6	20	51	30	51.3	40	30

Notes: *Combined percentage total of strongly attractive and attractive for each element at all point

Table 11 depicts the number of sites per quality class, which was determined by the respondents' scores through attractive elements, as well as the number of sites based on the significant score correlation. The significance level (α) of 0.05 was used for all the analyses. A p-value ($p < 0.001$) of less than 0.05 in the result suggests a probable correlation between the variables. Therefore, according to the respondents' assessment, the majority rated the quality class at the excellent level (1 point), good level (10 points), and moderate level (15 points).

Table 11: Number of Sites (respondents' scores through attractiveness element) and number of site (correlation of significant score)

Quality Class	Condition	Number of Sites (Respondents Scores through attractiveness element)	Number of Sites (Correlation of Significant (p-Value < 0.05))
Excellent		1	1
Good		10	10
Moderate		15	15
Poor		13	13
Bad		1	1



Figure 8: The result of attractiveness elements at 40 points

Overall, the attractive elements' results emphasise the moderately prominent scenic routes with attractive landscapes around paddy fields, while on the other side, they provide a view of the medium style, harmonious architecture of a man-made chalet. Still, the elements need to be preserved because they become an identity to attract people's views. However, at point 40, the quality of the view was bad. This can be attributed to the absence of attractive landscape elements, psychological factors, and design factors in the point area. Controlling development provides an attractive view without destroying the area's identity, while also raising public awareness of the value of scenic roads, which is crucial for preserving and sustaining beautiful and distinctive scenery.

4.3.4 Unity Element

The extent to which visual elements form a coherent and harmonious visual unit is also evaluated based on the uniqueness of their characteristics. In scenic conditions with solid levels of unity, the various scenic elements blend into a cohesive visual landscape. Generally, there is a sense that the individual scenic elements belong together, as demonstrated in Table 12 and Figures 9-10.



Figure 9: Visual value in terms of unite elements

Table 12: Percentage of attractive in terms of unite elements

Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *	Point	Percentage of attractive (%) *
1	55	11	56.3	21	56.3	31	52.6
2	36.3	12	55.1	22	69.1	32	46.3
3	38.8	13	58.8	23	71.3	33	52.6
4	51.3	14	51.3	24	62.5	34	75
5	83.8	15	57.6	25	70.1	35	51.3
6	76.3	16	56	26	71.3	36	40.1
7	78.8	17	42.5	27	43.7	37	46.3
8	66.3	18	47.5	28	56.3	38	37.6
9	73.7	19	53.8	29	53.8	39	52.5
10	77.6	20	47.5	30	45.1	40	36.3

Notes: *Combined percentage total of strongly attractive and attractive for each element at all point

Table 13 shows the number of sites for each quality class, determined by the respondents' scores in the unity element, as well as the number of sites determined by the correlation of significant scores. For all analyses, a significance level (α) of 0.05 was employed. A p-value ($p < 0.001$) of less than 0.05 in the result suggests a probable correlation between the variables. Therefore, according to the respondents' assessment, the majority of the respondents rated the quality class at a good level (9 points) and a moderate level (19 points).

Table 13: Number of Sites (respondents' scores through unite element) and number of sites (correlation of significant score)

Quality Class Condition	Number of Sites (Respondents Scores through unite element)	Number of Sites (Correlation of Significant (p-Value < 0.05))
Excellent	0	7
Good	9	5
Moderate	19	20
Poor	12	7
Bad	0	1

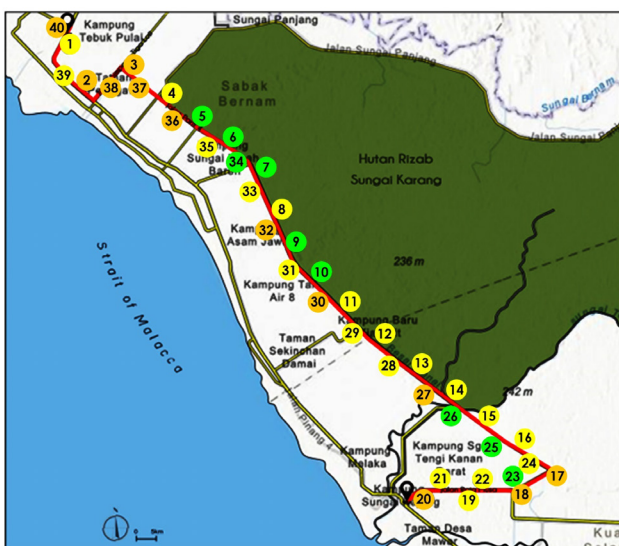


Figure 10: The result of uniting elements at 40 points

The Malay village and traditional houses in their rural settlement settings can be seen on the prominent scenic roadways, with unified landscapes surrounding paddy fields with wild birds as a background. Additionally, the preservation of these elements is crucial as they embody their culture in their entirety. Controlling development and educating the public about the value of scenic routes are essential to maintaining and preserving stunning and unique scenery.

To conclude, the elements such as vividness, naturalness, attractiveness, and unity showed little influence on preference, which indicates their value as predictive devices, at least in conditions similar to those presented in this research. The questionnaire's picture point assessment heavily relied on this element.

4.4 Scenic route preservation

The author posed a question in this section to elicit the respondents' opinions on the significance of scenic route preservation. Figure 11 illustrates the respondents' opinions on whether they support the preservation of scenic routes as a means to safeguard the view from development. The results showed that 74 respondents, or 92.5%, agreed with the preservation of scenic routes, while six respondents, or 7.5%, disagreed. The mean and median values of the results were 1.0750 and 1.0000, respectively. People overwhelmingly agreed that preserving scenic route could shield the view from development. These results provide scenic route preservation; the roadside landscape is essential in creating scenic attractions for road users.

Other than offering stunning scenery, enhancing the scenic view of a place also contributes to the relaxation and comfort of its users while they are on this road. Additionally, most drivers and individuals have an affinity for nature, appreciating its green elements, such as water, plants, and other vegetation. Driving on highways can often induce drowsiness and boredom due to the repetitive scenery. In contrast, rural roads offer diverse views, including villages and traditional stalls, allowing travellers to stop and engage with locals. These interactions enhance social connections, while the natural surroundings create a more relaxed driving experience. Therefore, there is a consensus that preserving scenic roads as part of Malaysia's heritage would benefit drivers, passengers, and local communities both socially and economically.

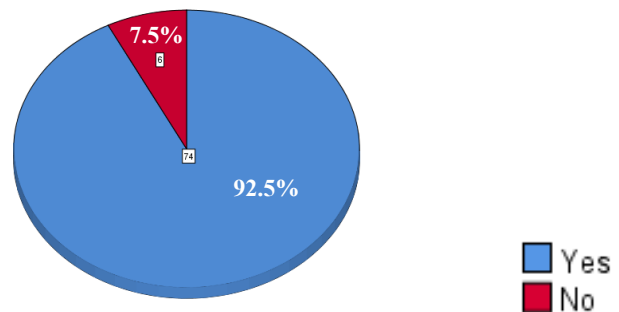


Figure 11: Result of respondent's opinions about the scenic route preservation

Additionally, scenic routes can result in picturesque views that can calm the mind, evoke a sense of place, and promote a feeling of belonging. This is because they provide drivers with pleasant thoughts along the way, rather than requiring them to focus solely on their destination, allowing both drivers and visitors to take in the scenery and the fresh air. The natural and cultural psychological benefits of a scenic route can help other road users feel comfortable and welcomed while driving.

Previous research by Clay and Daniel (2000) revealed that trees, tall shrubs, and water significantly influence landscape preferences. Its overall results indicated a higher percentage of naturalness and attractiveness elements in the landscape leads to greater appreciation scores. Thus, controlling development and educating the public about the value of scenic roads in Kuala Selangor is essential for preserving, maintaining, and protecting its magnificent and distinctive scenery.

5. CONCLUSION

The study's findings revealed the dimensions of destination attributes and the emotional involvement of the respondents with assessments, providing a baseline measure for understanding the connection between motivation and overall satisfaction. The methods aimed to generalise the research outcomes, offering a comprehensive view of the respondents' preferences and dislikes. Besides that, it is necessary to gain a deeper understanding of how individuals perceive the landscape, view, and surroundings, as well as the characteristics of landscape and scenery that hold value for them.

This study's overall result also showed a relationship between scenic route quality, vividness, naturalness, attractiveness, and unity. The mean preference rating for the 40 points based on the four elements provided was vividness element 4.39, naturalness element 3.73, attractiveness element 3.37, and unity element 3.61. These four elements were essential in evaluating the view for its scenic quality. The respondents also concurred on the importance of preserving scenic routes as a safeguard against development. Those good scenic routes, whether natural or cultural, can provide psychological pleasure to road users and foster a sense of welcome and relaxation during driving. Future studies should delve deeply into the factors that influence the attractiveness of a scenic quality. As a result, the routes will be more viable and desirable for users. Besides that, it will enhance the areas' picturesque character and improve the surrounding areas' environmental quality.

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