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THE NEXUS OF LANDSCAPE: INTERRELATION BETWEEN LANDSCAPE VALUE WITH ASSOCIATED REGULATIONS IN MALAYSIA

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Abstract

The landscape spectrum of Malaysia portrays rich, multiple natural and developed landscapes. Surprisingly, there are not any regulations that directly govern the landscape. It depends entirely on existing regulations that are not mentioned in detail regarding the 'landscape' specifically. As an alternative mechanism, it has several regulations used by landscape practitioners that help to manage and govern landscape planning and development. It regrets that these regulations have not been properly enforced due to some issues, which potentially can cause inefficiencies in development. Landscape value is an effective way to deeply understand the significance of landscape holistically. This study aims to examine related acts concerning landscape value in Malaysia using an archival review, identify the interrelationship of the landscape with associated regulations and analyze the relationship between these acts and the understanding of landscape in Malaysia. The findings of this research will be used to discover potentialities and constraints of the associated landscape regulations regarding their relationship with landscape value and landscape governance in Malaysia.

Keywords: landscape value, landscape governance, associated landscape regulation

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INTRODUCTION

The term "landscape" is used by many different disciplines with various connotations (Teh et al., 2020). Landscape includes ecological diversity, botanical or cultural significance, history, traditions, evolution, spatial structure, economic value, countless narratives describing the way it impacts us and the aspirations we have for its future (Doherty & Waldheim, 2016). The landscape is an important component of quality of life for people everywhere both in urban and rural areas, degraded areas or of high quality, and in areas recognized for their outstanding beauty as well as in everyday areas (Council of Europe, 2000).

Over the last five decades, Malaysia has experienced rapid economic, social, and environmental changes, with development processes ongoing. In Malaysia, currently there is no specific law and regulation pertaining to landscape (Ibrahim et al., 2009). The only written regulation mentioned about landscape is National Landscape Policy, published in 2011 by *Jabatan Landskap Negara, Kementerian Perumahan dan Kerajaan Tempatan Malaysia.* Landscape regulations are seen as a cause of delays in the development implementation process by landscape practitioners. Consequently, landscape practitioners may not aware of the magnitude and complexity of the associated regulations because they involve management and enforcement by several agencies which later leads to conflicts in determining the source of power in landscape development process.

The aim of this study is to examine relevant facts regarding landscape value in Malaysia using a document review method. The objectives are to identify the interrelationships between landscape and associated regulations. Then, to analyze the relationship of these acts with the understanding of landscape in Malaysia.

LANDSCAPE AND REGULATIONS

The landscape is a vital part of our environment which influences the quality of life (Teh et al., 2020). It is a spatial social-ecological system that allows the identification of specific management challenges: integration of multiple views, organizational levels, intricate spatial-temporal patterns, and uncertainties (Allain et.al., 2017). Two crucial aspects of the landscape in the transformation process are its role as resources and its capacity for transformation (Suryantini, et al., 2021). Landscape represents a section of the environment. It consists of natural components such as soil, trees, landforms, and water, as well as the various cultural components or developed forms, such as farms, recreational areas and engineered developments, and housing (Jackman, 1980). It is a significant part of people's quality of life in all areas and obliges signatories to make legal provisions for landscape protection, management, and planning. (Jones, 2007). It also often changes according to specific needs, whether they are to be developed, preserved, or conserved. (Teh et al., 2020). The definition of landscape also allows for the consideration of potential conflicts between natural and human-

related processes and the achievement of healthy multifunctional and resilient landscapes (Pereponova et al., 2023). Even though "landscape" is a term frequently used in landscape policy and planning, the term lacks a clear definition. However, generally, it can be understood as the physical and visible features of a particular area, including its natural elements, such as mountains, rivers, and vegetation, as well as human-made elements, such as buildings, roads, and infrastructure. A regulation or law that mandates certain categories to go through specified evaluations serves as the catalyst for environmental protection in land development projects both, globally and locally (Suaree et al., 2023).

The landscape is an important national resource and outstanding natural and cultural inheritance that is widely appreciated (Teh et al., 2017). However, landscape resources and elements have not been given due attention and recognition holistically (Teh et al., 2018). Integrating the right-based landscape regulation approaches into the landscape development process is necessary for better governance of the landscape. Landscape governance involves how public administration manages its policies, from its inception through action, with the involvement of the public and private sectors (Muhamad et al., 2023). Landscape governance serves as a source of environmental regulation and policy integration. It engages landscape resources, stakeholders, the stage of the landscape development process, and landscape practitioners in the decision-making procedures through the establishment of a platform to manage the landscape development process. Most associated regulations and policies related to landscape-related environmental law in Malaysia are based on administrative affairs, managing, developing, and protecting the land.

In Malaysia, landscape is not mentioned directly in any bounded regulations which leads to inconsistencies in implementation. (Wirawan et al., 2023). This problem is evident when there is no policy or legislation focusing directly on landscape management, development, maintenance, conservation, or protection. Therefore, proper initiatives for adapted policy and rules for landscape management and protection (Antrop, 2005) need to be established using existing regulations to obtain a method that can be a source of legislation for landscape governance in Malaysia.

LANDSCAPE VALUE

Landscape value refers to the relative value or importance attached to different landscapes by society based on their landscape qualities (Landscape Institute, 2021). It is related to increased awareness, responsibility, and place attachment (García-Martín et al., 2018). Besides, landscape values reflect personal guiding principles and enduring beliefs, recreation represents a diverse set of human behaviours influenced by their values and beliefs (Biedenweg et al., 2019). The concept of landscape value can capture the holistic character of landscape-related benefits and values. (Gamboa et al., 2023). Landscape value research has been

motivated by the need to inform and enhance land use planning and environmental management. (Brown & Brabyn, 2012). Thus, landscape values range from instrumental values (for places that may provide sustenance) to symbolic values (for places that may represent abstract ideas). (Zhu. et. al, 2010). Landscape value has various benefits and values that landscape to people and the environment. (International Federation of Landscape Architects,2021). Landscape value is the relative value or importance attached to different landscapes by society on account of their landscape qualities.

Landscape values are the sum of the physical, biological, aesthetic, cultural, and social aspects and attributes of the landscape that contribute to the well-being of individuals and communities. Landscape value highlights the importance of protecting and enhancing landscapes, for both current and future generations. (International Federation of Landscape Architects,2021). Landscape values are understood as a "relationship value" that bridges held and assigned values (Brown and Weber, 2012). They are perceived attributes of a landscape that are thought to result from a transactional concept of human–landscape relationships (Brown, 2005). The original typology of landscape values was developed by (Brown and Reed, 2000), who established a set of 13 values (aesthetic, recreation, biodiversity, life-supporting, economic, learning, historical, cultural, future, intrinsic, spiritual, therapeutic, subsistence). This typology has been adapted and used for different applications, such as public lands, country management, urban areas, rural landscapes, and coastal landscapes. It is used as a guidance for most researchers to identify landscape values for different places and conditions.

However, there has been no comprehensive review on the interrelation of landscape values and regulations in Malaysia. This is due to the lack of bounded regulations and strong enforcement for landscape regulation and protection.

METHODOLOGY – TOWARDS THE COMPATIBILITY OF LANDSCAPE VALUE WITH ASSOCIATED REGULATION IN MALAYSIA

In the early stages of this study, archival review from associated regulations related to the landscape was essential to obtain clear fundamentals from the analysis. From 1957 until 2022, 836 acts have been enacted and published under the series of Laws of Malaysia. A review of 737 active acts with ninety-nine (99) non-active acts. In figure 1 mention, there are twenty-five (25) acts related to the landscape development process were analyzed (Teh et al., 2024). According to Tun Ariffin Zakaria in 2015, the former Chief Justice of Malaysia, the Malaysian government is striving to provide the best legal infrastructure for the environment. We have 34 pieces of principal legislation enacted for environmental protection.

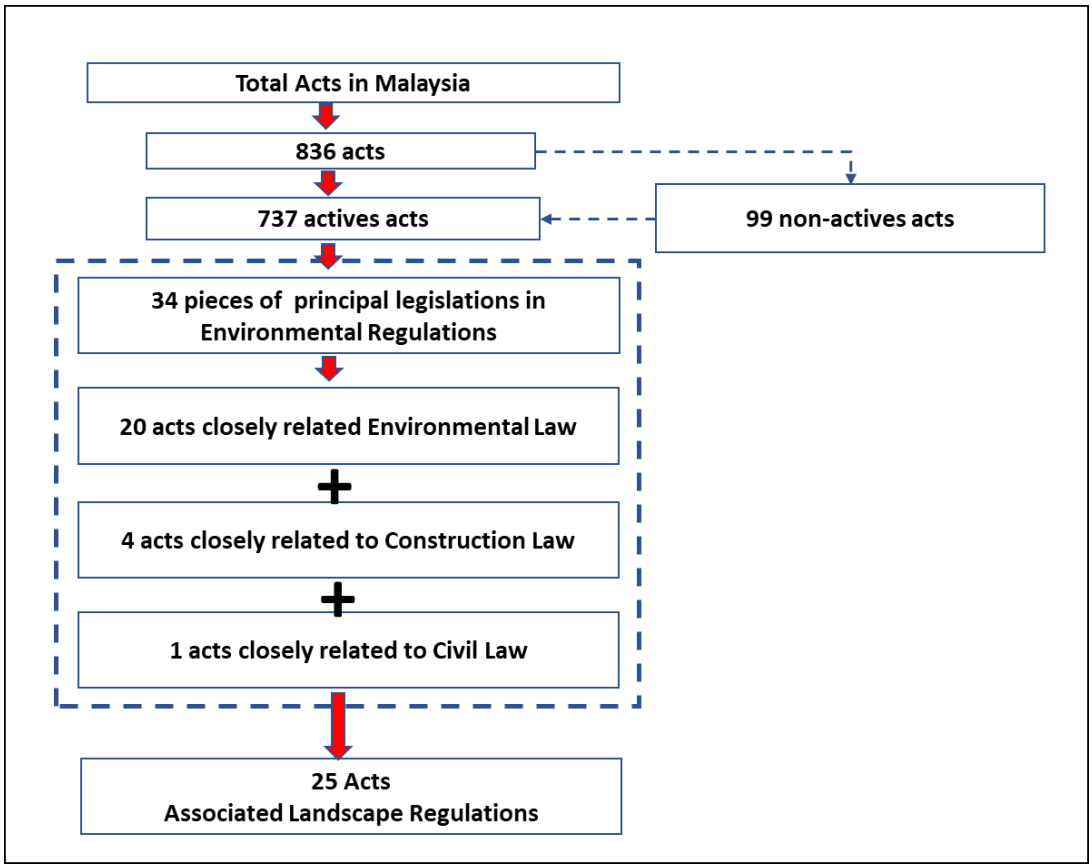

Figure 1 Flow of Associated Landscape Acts in Malaysia
Source: Authors

The impact of this lack of understanding creates a waste of a lot of time and causes delays in the landscape development process. Environmental law, together with associated regulations, stems from thirty-four (34) pieces of principal legislation enacted for environmental protection, and twenty-five (25) acts are closely related to stages of the landscape development process in Malaysia (Teh et al., 2024). Therefore, these associated regulations will be mapped with the 13-landscape value factors contained in 33 literature reviews. The aim is to determine which landscape value factor is significant in relation to associated regulation in Malaysia.

FINDING AND DISCUSSION

Assessing Landscape Value within Associated Landscape Regulations in Malaysia

There are 33 articles related to landscape value were reviewed. These articles were filtered based on suitability for Malaysian conditions. There are 13 landscape value categories identified by Brown & Reed (2000).

Analysis of the Relationship of Landscape Value Categories with the Literature

Table 1 explains about 13 categories of landscape value found in 33 articles in the literature review. The category with the strongest relationship with the literature is biodiversity with a score is 97% showing that 33 articles mentioned biodiversity as a landscape value. The lowest scoring category is learning, with a score of 45%, mentioned in 15 articles as a landscape value. Overall, 7 of the categories of landscape value scored more than 70% indicating a good relationship between landscape value and current associated landscape regulation in Malaysia.

Table 1: Analysis of the Relationship of Landscape Value Categories with the Literature Review

	Reference	Aesthetic	Recreatio	Biodiversi	Life-Supportin	Economic	Learning	Historical	Cultural	Future	Intrinsic	Spiritual	Therapeut	Subsistenc
1	Landscape Institute,2021	●	●	●	●			●	●	●	●	●	●	●
2	International Federation of Landscape Architects, 2021	●	●	●	●	●	●	●	●	●	●	●	●	●
3	Zaman et al., 2022	●	●	●	●	●		●	●	●	●	●		●
4	García-Martín, M., Plienin ger, T., & Bieling, C., 2018	●	●	●	●	●		●	●	●	●	●	●	●
5	Baylan, E., & Karadeniz, N., 2018	●	●	●	●	●	●		●	●	●	●	●	●
6	Solecka et al., 2022	●		●	●				●		●			
7	Biedenweg et al., 2019	●	●	●	●		●	●	●		●	●		
8	Martín, R., & Yepes, V., 2023	●	●	●		●	●		●	●	●		●	
9	Cerveny, L. K., Biedenweg, K., & McLain, R., 2017	●	●	●	●	●	●	●	●	●	●	●	●	●
10	Ernoul et al., 2018	●	●	●		●					●			●
11	Havas et al., 2016	●	●	●	●	●	●	●	●	●	●	●	●	●
12	Zhu et al., 2010	●	●	●	●	●	●	●	●	●	●	●	●	●
13	Kovács et al., 2022	●	●	●		●	●	●	●	●	●	●	●	
14	Inoue et al., 2022	●	●	●	●	●	●	●	●	●	●	●	●	●
15	*Korpilo et al., 2023*	●	●	●	●						●		●	

	Reference	Aesthetic	Recreatio	Biodiversi	Life-Supportin	Economic	Learning	Historical	Cultural	Future	Intrinsic	Spiritual	Therapeut	Subsistenc
16	Stephenson, J., 2008	●	●	●	●			●	●	●	●	●		●
17	Gamboa et al., 2023		●	●		●		●	●					●
18	Stahl Olafsson et al., 2022	●	●	●		●		●	●					●
19	Brown, G., & Brabyn, L., 2012	●	●	●	●	●	●	●	●	●	●	●	●	●
20	Othman, N., Mohamed, N., & Ariffin, M. H., 2015	●	●	●			●				●			
21	Schulz, C., Martin-Ortega, J., & Glenk, K., 2018			●		●			●	●	●			●
22	Šťastná et al., 2018		●	●	●		●	●	●	●		●	●	●
23	Garcia et al., 2017	●	●	●	●	●	●	●	●		●	●	●	●
24	Baránková et al., 2011	●		●	●	●		●	●		●			
25	Parron, L. M., Villanueva, A. J., & Glenk, K., 2022	●		●		●					●			●
26	Plieninger et al.,2018	●	●	●		●		●	●		●			●
27	Tindale et al., 2023	●		●	●	●		●	●		●	●	●	●
28	Brown, G., Weber, D., & de Bie, K., 2014	●	●	●	●	●	●	●	●		●	●	●	●
29	Chen, Y., Parkins, J. R., & Sherren, K., 2018	●	●		●			●	●			●		
30	Willis et al., 2012			●							●			●
31	Plieninger et al., 2023	●		●	●	●		●	●		●	●		●
32	Hejnowicz, A. P., & Rudd, M. A., 2017			●	●						●			●
33	Türkyılmaz, Ç. C., 2016	●	●	●				●	●		●	●		●
Total of LR		**28**	**25**	**32**	**22**	**22**	**14**	**23**	**27**	**15**	**29**	**20**	**16**	**25**
Percentage (%)		**85**	**76**	**97**	**67**	**67**	**45**	**70**	**82**	**45**	**88**	**61**	**48**	**76**

Source: Author

Analysis of the Relationship of Landscape Value Categories with 25 Associated Acts in Malaysia

Table 2 presents the analysis of the relationship of landscape value categories with 25 associated landscape acts in Malaysia. It is meant to clearly define the mapping of 13 categories with these acts. The landscape value category "life-supporting" is related with 22 acts, representing 88% of the overall 25 acts. Meanwhile, the lowest, "spiritual" is only related to 4 acts which makes up 16% of the overall acts. The overall score is not impressive. It portrays the real picture of landscape regulation in Malaysia which lacks a clear understanding to govern landscapes. 10 of the categories score below 70%.

The analysis explains Act 171 - Local Government Act 1976, covers 100% of the 13 categories. While Act 332 - Copyright Act 1987 only covers 8%, addressing only 1 category. Overall, the relationship is not in good condition, with 15 acts scoring below 70%. The second analysis shows that 25 associated

landscape acts in Malaysia are not effectively governing the landscape. The relationship between landscape and environmental law is separated into several categories. The categories include environmental quality, construction, land planning, marine environment, horticulture and agriculture, and civil law. Based on an analysis of existing law, twenty-five (25) regulations can be cross related to landscape regulations.

Table 2: Analysis of the Relationship between Landscape Value Categories and 25 Associated Acts in Malaysia

	Act	Aesthetic	Recreation	Biodiversity	Life-	Economic	Learning	Historical	Cultural	Future	Intrinsic	Spiritual	Therapeutic	Subsistence	Total	Percentage (%)
1	Act 172- Town and Country Planning Act 1976	●	●	●	●	●	●			●			●		**8**	**62**
2	Act 134 - Aboriginal People Act 1954	●		●	●	●	●	●	●	●	●	●	●	●	**12**	**92**
3	Act 167 - Plant Quarantine Act 1976			●		●	●						●		**4**	**31**
4	Act 190 – Federal Capital Act 1960	●	●		●	●	●	●	●	●	●		●	●	**12**	**92**
5	Act 226 - National Park Act 1980	●	●	●	●		●	●	●	●	●	●	●	●	**12**	**92**
6	Act 385 - Land Conservation Act 1960	●	●	●	●		●	●	●	●	●			●	**10**	**77**
7	Act 634 - Protection of New Plant Variety Act 2004			●	●	●	●								**4**	**31**
8	Act 311 - Exclusive Economic Zone Act 1984			●	●	●				●					**4**	**31**
9	Act 317 - Fisheries Act 1985	●	●	●	●	●	●	●	●	●	●			●	**11**	**85**
10	Act 418 - Water Act 1920	●	●	●	●	●	●	●	●	●	●			●	**11**	**85**
11	Act 127- Environmental Quality Act 1974			●	●		●			●			●		**5**	**38**
12	Act 474 - Land Development Act 1956	●	●	●	●	●	●		●	●			●		**9**	**69**
13	Act 313 - National Forestry Act 1984	●	●	●	●	●	●			●	●		●	●	**10**	**77**
14	Act 645 - National Heritage Act 2005	●	●	●	●		●	●	●	●	●	●		●	**11**	**85**
15	Act 56 - National Land Code 1956	●	●		●	●				●			●		**6**	**46**
16	Act 133 - Street Drainage and Building Act 1974		●		●	●				●			●		**5**	**38**
17	Act 716 - Wildlife Conservation Act 2010		●	●	●		●				●			●	**6**	**46**

	Act	Aesthetic	Recreation	Biodiversity	Life-	Economic	Learning	Historical	Cultural	Future	Intrinsic	Spiritual	Therapeutic	Subsistence	Total	Percentage (%)
18	Act 171 - Local Government Act 1976	●	●	●	●	●	●	●	●	●	●	●	●	●	**13**	**100**
19	Act 354 - Drainage Works Act 1954		●		●	●				●			●		**5**	**38**
20	Act 386 - Irrigation Areas 1953		●	●	●	●				●	●		●	●	**8**	**62**
21	Act 520 - Construction Industry Development Board Act 1994	●	●		●	●				●					**5**	**38**
22	Act 746 - Construction Industry Payment and Adjudication Act 2012 (CIPAA)				●	●									**2**	**15**
23	Act 118 - Housing Development (Control and Licensing) Act 1966		●		●	●				●					**4**	**31**
24	Act 514 - Occupational Safety and Health Act 1994				●	●				●			●		**4**	**31**
25	Act 332 - Copyright Act 1987					●									**1**	**8**
Total of Acts		**13**	**17**	**16**	**22**	**20**	**15**	**8**	**9**	**19**	**11**	**4**	**14**	**11**		
Percentage (%)		**52**	**67**	**64**	**88**	**80**	**60**	**32**	**36**	**76**	**44**	**16**	**56**	**44**		

Source: Author

CONCLUSION AND LIMITATION

The term "landscape" has been defined as a system of spatially arranged entities that are structurally and functionally interconnected, allowing for flexibility to consider the dynamic nature of relationships between environmental, economic, and social elements of complex systems. It is not tied to geographical or temporal boundaries and enables continuous learning and adaptation processes for improved management in changing conditions (Pereponova etal., 2023).

Overall, according to the methodology that has been implemented and tested, identifying the landscape in Malaysia itself is not clear enough and is not given the concern it deserves. In the analysis that has been carried out, the relationship between landscape value and the existing regulation is very limited and there is a gap in understanding that can impact on the landscape industry in Malaysia. Thus, it is appropriate to improve the context of landscape regulation to provide legal direction in the development and preservation of the landscape. It provides a clear path to govern and manage all landscape contexts and strengthen the character of the landscape. Therefore, the test in the document

review and the test in the literature review need to be synthesized. From the document review, the clear part of defining the landscape is in the landscape value analysis. To get a positive impact, a low landscape value score is considered.

Limitations of this research include little cross-fertilization across disciplines of landscape in Malaysia, the lack of accessibility/comprehension ability of landscape legislation research to suit the Malaysian condition, and the orientation of much research towards theoretical rather than practical implementation. It also includes identifying the relationship of landscape value with associated landscape regulation in Malaysian context. There is a limitation of literature closely related to this research. For future research, these findings can be more significant and useable to create an impactful outcome to the landscape regulation and landscape value in Malaysia.

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