

## **Landscape Design for a Sustainable Community: A Case Study of Kampung Madani Lestari**

Alifah Ilyana Mohd Ali

Department of Information Technology, Faculty of Management and Information Technology,  
Universiti Sultan Azlan Shah, Bukit Chandan, 33000 Bandar DiRaja Kuala Kangsar, Perak,  
Malaysia

Tel: +6011-1515 9488 Email: [ilyanaalifah1709@gmail.com](mailto:ilyanaalifah1709@gmail.com)

Zainal Syahrizal Zainal Abidin (Corresponding Author)

Department of Information Technology, Faculty of Management and Information Technology,  
Universiti Sultan Azlan Shah, Bukit Chandan, 33000 Bandar DiRaja Kuala Kangsar, Perak,  
Malaysia

Tel: +6019-451 2359 Email: [zainalsyahrizal@usas.edu.my](mailto:zainalsyahrizal@usas.edu.my)

### **Abstract**

The maintenance of valued landscapes often requires the active collaboration of local communities in their planning, management and sustainable development. Along with the rural depopulation, the issues that Kampung Paya Panjang facing is lack of communities' activities, discontinues pedestrian linkage, poor spatial infrastructure of human interaction and abandoned of houses and farming areas. This study aim is to gain insight of local peoples on how to revitalize Kampung Paya Panjang into a village that has serene ambiance and physical activities that help improve their wellness and economy. The methods of data collections include interviews, through public participation method and focus group discussion (FGD). The effectiveness of these methods was translated into landscape design master plan of Kampung Madani Lestari. There were 18 participants during interviews, public participation events and FGD sessions. 83% of feedback of the local during these events were implemented in master plan design. From the data collected, there are a few design strategies developed to create a sustainable village by implementing authentic agro-edu-tourism approach. It shows that the community involvement is an important key factor during the design process and implementation of designing a master plan.

**Keywords:** Landscape design approach; Community participation; Innovative design; Sustainable development; Village design

### **Introduction**

Landscape architects play a crucial role in the creation of outdoor that extend beyond mere visual appeal, encompassing functionality, sustainability, and community well-being. Smith (2023) stated that central to their success is the practice of effective public engagement, which involves active participation from local residents and stakeholders. Through this collaborative process, landscape architects gain crucial insights into the unique needs, preferences, and cultural aspects of the community. By listening attentively and incorporating feedback, they can tailor their designs to reflect the identity and character of sites, fostering a sense of ownership and pride among its users (Xu et al., 2019).

This research investigates a specific example of public engagement during village landscape designing: a project of Kampung Madani Lestari in Kampung Paya Panjang, Padang Rengas, Perak. Researcher aims to explore the innovative landscape design approach used in this project

and its impact on the community. The objectives of this study are to (1) investigate the approach to landscape design used in Kampung Paya Panjang, Padang Rengas, Perak specifically for the Kampung Madani Lestari project, (2) analyze the level of community participation in the design process, and (3) evaluate the opinions of the community towards the implemented landscape design. Creating sustainable and successful community spaces requires incorporating the needs and desires of the residents. However, limited research exists on how landscape design projects in rural Malaysian settings involve and consider community participation.

By examining these questions, this research aims to contribute valuable insights to inform future landscape design projects in village's communities and ensure they are designed with the community, not just for them. Work by Millington, 2015 found that by engaging with local residents and advocacy groups, landscape architects will be able to repurpose an abandoned area into a vibrant space that celebrates the neighborhood's history and cultural heritage. Similarly, in Copenhagen's waterfront redevelopment, Abbas & Al. Talib, (2018) found it was driven by extensive public consultation, resulted in a dynamic mixed-use neighborhood that prioritizes pedestrian-friendly design and sustainability, enriching the quality of life for residents and the same time preserving maritime traditions.

The significance of public engagement in village design is increasingly recognized by influential figures in landscape architecture and urban planning. For example, Jan Gehl, a prominent advocate for people-centric urban planning, emphasizes the necessity of prioritizing human experiences and interactions within the built environment. His work highlights that urban spaces should be designed to foster social interactions, thereby enhancing the quality of life for residents as mentioned by Pérez-delHoyo et al. (2018). In Ignatieva et al. (2023) work, they stated that aligns with the principles of landscape architecture, where the design of public spaces is not merely an aesthetic endeavor but a crucial component of community well-being and social cohesion.

Frederick Law Olmsted's legacy further reinforces these ideals by illustrating how landscape architecture can embody democratic principles through the creation of inclusive public spaces. His designs, such as Central Park in New York City, serve as historical examples of how thoughtfully designed landscapes can promote social interaction and community health (Mohandas & Purayil, 2023). The integration of public engagement in the design process is essential for ensuring that these spaces reflect the values and aspirations of their communities. Jakupi and Jashari-Kajtazi (2018) stated that this participatory approach not only enhances the functionality of public spaces but also fosters a sense of ownership among community members, which is vital for the sustainability of such projects.

Furthermore, contemporary studies underscore the importance of community engagement in urban planning and landscape architecture. For instance, Mkiramweni (2023) says research has shown that effective communication strategies within community-driven projects can significantly enhance transparency and participation, leading to better project outcomes. The synthesis of these perspectives illustrates that the role of landscape architects extends beyond technical expertise; it encompasses the facilitation of community dialogue and the integration of local knowledge into the design process (Beverungen et al., 2022).

## **Methodology**

A desk study of procedures in community engagement's precedent studies was evaluated in order to compare the suggested order or set of actions. In addition, as work by Siler (2023), a formulation of guiding questions to comprehend limitations like budget and schedules that can affect choices made during the design, execution, and supportive of involvement.

The design of a village master plan requires the use of a range of data collection methods to gain a complete understanding of the community's needs and priorities. Conducting interviews with key stakeholders, such as residents, local leaders, and community organizations, is one of the methods. These interviews provided an opportunity to delve into the perspectives, aspirations and concerns of individuals regarding the design of their villages. The researchers held an interview session, public participation events, and FGD workshops with a group of Kampung Paya Panjang residents in their village to discuss the project. They explained what landscape architecture is and how design ideas are turned into plans. Through this face-to-face meeting, the landscape architects could directly hear from the community and gain valuable insights that improved the design process. These interactive sessions invite residents to share their ideas, visions, and feedback on proposed village designs in a collaborative setting.

Following the interviews, public participation events and workshops, researchers embarked on a comprehensive analysis of the collected data. This data encompassed a rich tapestry of information, including residents' thoughts on their current living environment, their aspirations for the future of the village, and their desired functionalities within the public spaces. Through a meticulous process that might involve coding and categorization, researchers identified recurring themes and priorities expressed by the community. This vital analysis served as a bridge between the raw data and the design phase. By translating the residents' voices into a set of clear programs, the landscape architects gained a roadmap for crafting a master plan that truly reflected the needs and desires of the Kampung Paya Panjang community.

## **Results and Discussion**

According to the interviewees, obtaining valuable design input and support, motivating group action, and developing local partnerships are some of the benefits of public involvement throughout project planning and design citizen ownership of a project. The power of the community supports the village projects that the locals support. Interviewees stated that the main shortcoming is that municipal council members alone may sometimes make all policy and decision-making decisions. In order to support all design suggestions for the community initiatives, it is crucial to incorporate community feedback.

Results from employing diverse methods of data collection in village design, including interviews, public participation events, and focus group discussions, reveal valuable insights into community needs, preferences, and aspirations. Through interviews with key stakeholders, researchers gained nuanced understandings of individual perspectives on various aspects of village design, such as accessibility, green spaces, and cultural heritage. Public participation events facilitated open dialogue and collaboration among residents, resulting in the co-creation of design ideas that reflect local priorities and values as shown in Figure 1.



Figure 1: Results and ideas design process from villagers

Focus group discussions as in Figure 2 provided structured forums for exploring specific topics in-depth, uncovering hidden dynamics and preferences within the community. Discussion of these results underscores the importance of engaging communities directly in the design process to ensure that village designs are responsive and inclusive. By incorporating diverse perspectives and local knowledge, landscape architects can create designs that resonate with the unique identity and character of each village. Furthermore, research by Linovski & Baker (2023) and Mthembu et al. (2023) indicates that when community members are actively involved in the design process, it fosters a sense of ownership and pride among residents, which is essential for creating sustainable and resilient communities in the long term.



Figure 2: FGD workshops

Table 1 shows the results of the villagers who participated and contributed ideas that consisted of 18 people of which 10 are male and eight are female in the integration of interviews, public participation events, and FGD workshops into the data collection process provides a holistic understanding of community needs and preferences, enriching the design process. By triangulating data from these sources, researchers can identify common themes, priorities, and potential conflicts, enabling informed decision-making and design refinement.

Table 1: Table of Ideas for Community for Village Master Plan Design

NO.	PARTICIPANTS	PROGRAM IDEAS	USE IN MASTER PLAN	NOT USE IN MASTER PLAN
1.	Male	- Museum organic - Coffee Shop - Coffee field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
2.	Female	- ATV area - Camping area	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Female	- Community garden - Playground area - Wedding hall	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
4.	Male	- Retail area - Pedestrian way - Gateway entry	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
5.	Male	- Ponds - Lakes		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
6.	Male	- Sport court - Fitness stations	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
7.	Female	- Outdoor dining area - Flower bed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8.	Male	- Signage - Pathway	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
9.	Male	- Street planting - Buffer tree	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
10.	Female	- Parking - Hangout area - Adventure playground	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11.	Female	- Community center - Collection log tree	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12.	Male	- Cornfield - Pineapple garden	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
13.	Female	- Wetland - Rain garden - Bioswales	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
14.	Female	- Bird sanctuaries - Pocket parks - Art and work space area		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
15.	Male	- Central plaza - Biking trails - Lawn area	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
16.	Male	- Heritage Trails - Tower view - Farm animal	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
17.	Female	- Gazebos - Pavilion - Child care center	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
18.	Male	- Outdoor amphitheater - Vertical garden - Healing garden		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

Figure 3 shows the master plan of Kampung Paya Panjang which has been innovative in terms of landscape design.



Figure 3: Master Plan of Kampung Madani Lestari

The concept used is Kampung Madani Lestari. It is where there are several landscape designs closely related to Madani terms such as Sustainability shown through street planting, Wellbeing through community garden activities, Creativity through hydroelectric watermill design, Respect through social areas activities where young people respect the elderly when meeting, Confidence through outdoor sports by keeping the body healthy can increase a person's confidence and Kindness through the retail area by being able to increase the economy of the villagers. There were 46 element ideas that have been expressed by villagers during various data collection events to be implemented into village's master plan, however only 83% of the village residents' ideas have been used in developing final landscape architecture master plan project of Kampung Madani Lestari.

## Conclusion

This research examined the role of public engagement in landscape design for villages, with the Kampung Madani Lestari project in Kampung Paya Panjang, Malaysia, serving as a case study. The findings demonstrate that incorporating resident voices throughout the design process leads to more successful and sustainable village spaces. By employing a range of data



collection methods, including interviews, public participation events, and focus group discussions, the project effectively captured the needs, preferences, and aspirations of the Kampung Paya Panjang community. This collaborative approach fostered a sense of ownership and ensured the final design, while not incorporating every suggestion due to potential constraints, reflected the local character and priorities.

The Kampung Madani Lestari project serves as a valuable example of how public engagement can enrich village design. This research contributes to the growing body of knowledge on the importance of community involvement in shaping landscapes that resonate with residents and promote long-term well-being. By following a people-centric approach, landscape architects can create vibrant, inclusive, and resilient villages that truly represent the communities they serve.

## References

- Abbas, S., & Al. Talib, A. (2018). Pedestrian Friendly Environment in Residential Complexes Case Study Erbil. *Iraqi Journal of Architecture and Planning*, 17(1), 10–19. <https://doi.org/10.36041/ijap.2018.160069>
- Beverungen, D., Heß, T., Köster, A., & Lehrer, C. (2022). From Private Digital Platforms to Public Data Spaces: Implications for the Digital Transformation. *Electronic Markets*, 32(2), 493–501. <https://doi.org/10.1007/s12525-022-00553-z>
- Ignatieva, M., Dushkova, D., Martin, D. J., Mofrad, F., Stewart, K., & Hughes, M. (2023). From One to Many Natures: Integrating Divergent Urban Nature Visions to Support Nature-Based Solutions in Australia and Europe. *Sustainability*, 15(5), 4640. <https://doi.org/10.3390/su15054640>
- Jakupi, A., & Jashari-Kajtazi, T. (2018). Architectural Drawing as a Medium of Communication, Education and Interaction With the Community; Case Study Prishtina, Kosovo. *Pollack Periodica*, 13(1), 237–246. <https://doi.org/10.1556/606.2018.13.1.21>
- Linovski, O., & Baker, D. M. (2023). Community-Designed Participation: Lessons for Equitable Engagement in Transportation Planning. *Transportation Research Record Journal of the Transportation Research Board*, 2677(6), 172–181. <https://doi.org/10.1177/03611981221145131>
- Millington, N. (2015). From Urban Scar to ‘Park in the Sky’: *<i>terrain Vague</i>*, Urban Design, and the Remaking of New York City’s High Line Park. *Environment and Planning A Economy and Space*, 47(11), 2324–2338. <https://doi.org/10.1177/0308518x15599294>
- Mkiramweni, T. E. (2023). Village Council Transparency Roles and Community-Driven Project Management: A Case of Mlimba District Council, Morogoro Region, Tanzania. *Asian Journal of Education and Social Studies*, 49(3), 108–119. <https://doi.org/10.9734/ajess/2023/v49i31140>
- Mohandas, M., & Purayil, V. P. (2023). ‘Aestheticization of Poverty’ and ‘Manufactured Consent’: How Power Imbalances Between Stakeholders Led to the Failure of the Kannankund ‘Model Village’ Housing Rehabilitation Project. *Environment and Urbanization Asia*, 14(1), 142–157. <https://doi.org/10.1177/09754253221151104>

Mthembu, Z., Mogaka, J. J. O., & Chimbari, M. J. (2023). Community Engagement Processes in Low- And Middle-Income Countries Health Research Settings: A Systematic Review of the Literature. *BMC Health Services Research*, 23(1). <https://doi.org/10.1186/s12913-023-09466-9>

Pérez-delHoyo, R., Mora, H., & Paredes, J. F. (2018). Using Social Network Data to Improve Planning and Design of Smart Cities. <https://doi.org/10.2495/ug180161>

Siler, E. (2023). Engaging communities: a primer for landscape architecture practice.  
Smith, C. A. (2023a). Geography's Lens, Landscape Architecture, and the Green Recovery. *Area*, 56(2). <https://doi.org/10.1111/area.12906>

Smith, C. A. (2023b). Geography's Lens, Landscape Architecture, and the Green Recovery. *Area*, 56(2). <https://doi.org/10.1111/area.12906>

Xu, H., Plieninger, T., & Primdahl, J. (2019). A Systematic Comparison of Cultural and Ecological Landscape Corridors in Europe. *Land*, 8(3), 41. <https://doi.org/10.3390/land8030041>

Xu, H., Plieninger, T., Zhao, X., & Primdahl, J. (2019). What Difference Does Public Participation Make? An Alternative Futures Assessment Based on the Development Preferences for Cultural Landscape Corridor Planning in the Silk Roads Area, China. *Sustainability*, 11(22), 6525. <https://doi.org/10.3390/su11226525>