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Improving Community Quality of Life through Recycle Edible Garden

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Abstract

Recycle Edible Garden (REG) is a green initiative green project that was composed to accommodate the community with edible resources, rainwater harvesting and reuse materials towards achieving subsistence living. This paper documented the rationale, risks and recommendation based on the collaborative design-build process and experiences. The data derived from the quantitative and qualitative method in which was recorded through meetings, pictures, newspaper and surveys. All data were analysed descriptively through comparative tables, images and graphs. The outcome will present the benchmark in designing and engaging with the community through motivating community interaction, minimising living costs and improving the quality of life.

Keywords: Recycle Edible Garden; Community, collaborative participation; Masjid

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1.0 Introduction

The needs to pursuit sustainable-way-of-life nowadays have brought with it various concern and attention, especially to the community. Many researchers have discovered the importance of community garden as a significant tool towards achieving sustainability. This study concern to diversity sustainability through subsistence living. It explores possibilities on how the community could utilize their space and surroundings for future surveillance. According to Rasmuna Mazwan & Mohd Rashid (2015) community gardens plays an important role in addressing the food crisis, social, safety and the economic issues of the urban population. Therefore, the 'Recycle Edible Garden' (REG) becomes a collective approach to subsistence living to overcome these issues.

In general, REG was composed to accommodate community with edible resources such as plants, herbs, fruits and vegetables for daily or annually purposes (Shuib KB. et al (2015), Lake (2010), Bekin et al (2007), Ferris et al (2001)). The objectives of this REG are to (i) motivate community interaction through program involvement; (ii) minimising living costs by self-produce of daily use plants; (iii) improving the community quality of health through gardening, interacting with neighbours and utilising the harvested resources for events such as 'kenduri' and gathering. This garden has received unexpected attention from both the experts and public which makes REG significant for the community.

The REG Masjid As-Siddiq also apply the green living concept to the implementation of rainwater harvesting as the watering system irrigation and the used of recycle materials as plants containers and also give an attraction to the garden. This paper documented the rationale, risks and recommendation based on the collaborative design-build process and experiences towards achieving a sustainable community. The aim is to explore the issues and imperatives gained throughout the process and implementation. This study seeks to narrow the gap by making practical suggestions of the community recycle edible garden to

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achieve future sustainability through subsistence living. The data derived from the quantitative and qualitative method in which was recorded through meetings, pictures, newspaper updates and surveys.

The importance of this 12 months projects (1 November 2016 – 31 Oct 2017) is to connect and communicate with community besides accommodating each other needs through subsistence living. There were about 5000 participants representing the researchers and designers, the Masjid committee, the industry experts such as MARDI Negeri Perak, Jabatan Perhutanan Negeri Perak, Pejabat Pertanian Perak Tengah and Taman Teknologi Agro MARDI, Cameron Highland, Pahang, learning institutional like university, college and school together with the business entrepreneur nearby Bandar Seri Iskandar involved in this project.

Several programs such as 'gotong-royong', 'recycle and reuse workshop', 'community-gardening-day', maintenance clinique and 'kenduri' was organized to gain participation besides fulfilling the project's objectives. A photographic method comprising the process, issues and situations will be shown and discussed. All data was then analysed descriptively through comparative images and figures. The results will interpret relevant information about the rationale, risks and recommendation of how REG would benefit and fold the community towards sustainability.

The outcome of this study will uphold the benchmark in designing a recycle edible garden that would not only giving experience to the experts to work on the ground, but has also successfully engaged the community in contributing and achieving quality in subsistence living.

2.0 The Concept of Recycle Edible Garden

According to the United Nations Committee on World Food Security (1996, November) "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Lake, 2010). However, the emerging issues of urban poverty and climate change have led to the concern of food to be insecure within the community. In a community's food system, the needs to maintain food security and having the ability to cater the community with food are crucial. Many studies indicated strategies such as urban farming, community garden and edible backyards was proved to be successful (Idilfitri S. et al (2015), Md Sakip SR. et al (2013), Wan Ismail WA. et al (2015)). With regards to the success of these strategies, this study intends to not only enhance the idea of community garden but also foresee the opportunity to utilize the reusable material to achieve resilience. The ultimate aims of this study are to improve the community quality of life through maximizing the recycle material and self-produced resources. Thus, the concept of 'Recycle Edible Garden' was initiated to pursuit the desires.

Recycle Edible Garden has potential cultural, economic, social, environmental, and sustainability benefits (Moquin (2014), Abdul Malek N. et al (2012), Ismail F. et al (2015)). Therefore, with regards to these benefits, this study initiates a collaborative participations involving the researchers, stakeholders, practitioners and community to practice REG. Responding to this need, the objectives of this study were to document and predict participation in recycle edible gardening in Masjid As-Siddiq, Seri Iskandar and, to generate a greater understanding of sharing community. Rooted in strong cultural backgrounds, the lives of Malaysian society back then evolved around tight and close-knit communities. Activities were done collectively, and almost everything from social to cultural events was done at the community level and shared basis (Harlina MA et al. (2012), Abdul Malek N. et al (2015)). For instance, Yahya (2003) noted that the concepts of sharing and cooperation were fundamental to the Malay culture and the traditional Malay lifestyle, as well as the general preference for community intimacy over personal privacy.

Bringing a broader range of community engagement together with experts and practitioners offers broader access of perspectives and ideas, Ngah and Zulkifli (2014) suggest that there is an extensive agreement that community-based interventions have the potential to be more responsive to the needs and priorities. Moreover, there is also evidence that showed community-based projects are comparatively cost effective because of the lower level of bureaucracy and better knowledge of local costs (Rasidi et al. (2014), Smita Khan (2013)). With regards to the values of this potential of community engagement, together with the concern of insecurity resources, the ideas of recycling materials would be most significant. The use of organic waste or reusable materials could have many direct advantages such as, minimizing living costs and reducing harmful pollution and waste transportation besides recycling the nutrients at a local scale as part of the urban metabolism (BJ Grard (2015), Bryan Lawson (2013), Barles (2009)).

Therefore, the concept of 'Recycle Edible Garden' intents to achieve the self-subsistence way of life through the sustainability aspects of social, economic and environment. The objectives are (i) motivating the community social interaction through program involvement; (ii) minimizing living costs by self-produce of daily use plants; (iii) improving the community quality of health through gardening, interacting with neighbors and utilizing the harvested resources for events such as 'kenduri' and gathering (iv) recycling reusable materials such as tires, cans, bottles and containers as planter box and (v) exploring renewable resources such as rainwater harvesting system and solar energy.

3.0 Case Study of Recycle Edible Garden at Masjid As-Siddiq, Seri Iskandar, Perak

Recycle Edible garden (REG) is an initiative project that practically involved the researchers and landscape architect from UiTM Perak together with many institutional partners and immediate community to collaboratively develop a comprehensive community project. The project focuses on the community action plan and community participation to improve quality of life. This project incorporates the utilisation of recycling materials and maximisation of edible resources with the assistance of technologies such as rainwater harvesting, irrigation system and fertigation which practice the energy saving, 3-Rs (recycle, reuse and reduce).

Masjid As-Siddiq was chosen as a pioneer project based on its location that is reachable between the institution, community and industries. The community surrounding was very supportive and highly committed and in handling and participating in most of the frequent activities organised by the Masjid. Moreover, there was a potential green area situated next to the Masjid. Therefore, with regards to this potential of strategic location, supportive community and land availability has turned the imaginary recycle edible garden into reality. Overall, the total areas of Masjid As-Siddiq are about 2.27 acres consists of 0.44 acres of built-up area and 1.83 acres of open spaces. Masjid As-Siddiq is well established with its primary equipment, social facilities (religion school, rest house, shops), water, electricity and proper road network). After a year of design and build program been implemented, the REG was ready to serve the communities, institutions and industries.



Fig. 1: Existing Features (*before construction)
(Source: Author (2018))



Fig. 2: The Illustration of Design & Idea of REG
(Source: Author (2018))

3.1 Process and Procedures

There are five stages in the process of development and community engagement towards improving quality of life (Refer Fig.2). These process (*exclude the process of grant application) includes the information and getting consensus from the respective authority, industry and the community to execute the project, design-build planning, discussion and meetings with representatives of the communities, implementation (formation of implementation committees and implementation) and program monitoring. The process involves continuous engagements with the community and exchange of knowledge and experiences among the expert group (facilitators) and communities which aligned with Rasidi et. al (2014) research on the low carbon eco-village in FELDA Taib Andak. The feedback on the progress, issues, difficulties, problems, and success was discussed and consider to improve future actions for achieving the projects aims. This collaborative methods and formulation of action plan and roadmap were adapted from the technique used proposed by Rasidi et. al (2014).

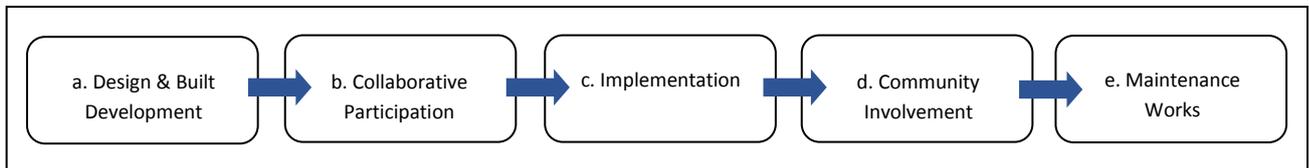


Fig. 3: The Process and Procedures
(Source: Author (2018))

Stage 1: Design & Built Development

REG project was facilitated by a team from UiTM (10 academic staffs consist of 3 ILAM corporate members assisted by 30 students). Before the construction phase begins on site, there are several meeting had been organised to ensure the best design to be implemented for REG project. The first meeting with the community was held in the Masjid As-Siddiq's meeting room on 6th December 2016. It has been attended by 22 participants including researchers, chairman of the masjid, AJK of the masjid and qariah of masjid representative of man and women community. The main agenda of the meeting was to announce the initiative of REG project to the community and to create awareness on the idea of REG and how it could benefit the community and contribute the global agenda. Besides, the AJK of masjid and community also give their feedback according to the site area and their opinions, needs, preferences, limitations and design interest of the REG.

After getting the agreement letter from the AJK of masjid for the REG project, the next process involved site inventory and analysis to identify the site condition and issues. There are discussions between the researchers was conducted before finalising the REG design proposal. The process was followed by the details planning on the time frame and schedule throughout the process and implementation of each stage.

Then, the second meeting was conducted a month later on 24th January 2017. The agenda was to look into detail the 8 actions identified during the first meeting and particularly to decide on the schedule of implementation. The outcome of both meetings has led to the strategic planning or road map to guide implementation (Refer Table 1).

Table 1: The Project Milestone

Bulan / Perkara	Bulan 1 (Nov 16)	Bulan 2 (Dis 16)	Bulan 3 (Jan 17)	Bulan 4 (Feb 17)	Bulan 5 (Mac 17)	Bulan 6 (Apr 17)	Bulan 7 (Mei 17)	Bulan 8 (Jun 17)	Bulan 9 (Jul 17)	Bulan 10 (Ogos 17)	Bulan 11 (Sep 17)	Bulan 12 (Okt 17)
1. Lawatan tapak												
• Menjalankan inventori dan analisis tapak												
• Perbincangan awal bersama komuniti												
2. Mendapatkan penajaan												
• Menguruskan hal-hal berkaitan penajaan (Cth: surat menyurat rasmi penglibatan pihak luar dengan projek)												
3. Cadangan pelan rekabentuk landskap												
• Menyediakan pelan pembangunan 'Recycle Edible Garden'												
• Mengadakan pembentangan rekabentuk kepada pihak terlibat (Cth: JKKK Komuniti)												
4. Penyediaan bahan binaan												
• Pembelian bahan dan pertukangan												
• Pemasangan 'hard-landscape' di tapak bersama komuniti												
• Bengkel 'recycle & reused'												
5. Penanaman tanaman												
• Menanam tanaman bersama komuniti												
• 'Klinik penyelenggaraan tanaman'												
6. Penyelenggaraan												
7. Penuaian hasil												
• Penyediaan masakan untuk moreh (bulan puasa)/ aktiviti gotong-royong												
8. Penyediaan laporan kepada UCTC												

(Source: Final Report REG; Author (2018))

Stage 2: Collaborative participation



Fig. 4: Collaboration Participation

Meetings and discussions involving the researchers and landscape architect with the masjid committee and other collaborating parties.

(Source: Author (2018))

This stage began with allocating and investigating various agency including the public, private, government, NGO and industry to participate not only as the team member but perhaps as the project funder and expert. The linkage and connection made through this project allow both sides to exchange knowledge, expertise and benefits. There is six agencies that participated in this REG project namely Majlis Daerah Perak Tengah, MARDI Negeri Perak, Pejabat Pertanian Daerah Perak Tengah, Jabatan Perhutanan Negeri Perak, Kolej Vokasional Seri Iskandar and Taman Teknologi Agro MARDI, Cameron Highland. The importance of collaborative participation in this project was helpful in conducting the practical part or project implementation. The strategic planning that diversity the committee and task force seems to be effective in moving the initiatives. Therefore the tasks are clear and manageable where some of the actions can be implemented independently which able to save time, energy and perhaps costs.

Stage 3: Implementation

After completing the stage 1 and 2, around March 2017, the construction works on site begins. Based on the design, working drawing and project Bill of Quantities, the hardscape works were conducted. Site clearance, footing, planter box, pedestrian walkway, gazebo, green wall, rainwater harvesting capture areas, storage and irrigation system was built to equip the site before the soft scape works start. Details on the hardscape and soft scape works are documented in Fig. 5, Fig.6 AND Fig.7.

This project utilizing several recycle materials such as, (i) bicycle rim as trellis, (ii) recycle bottles as planting container, and (iii) waste construction materials like timber, wire mesh, iron rod as the wall stacking, edging and etc.

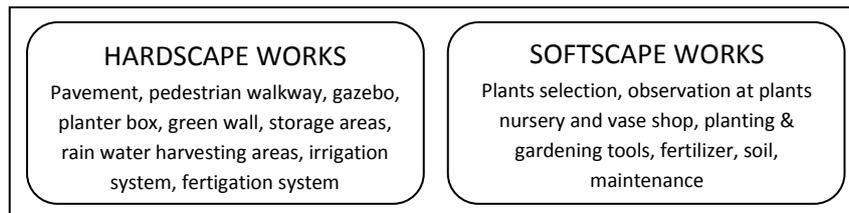


Fig. 5: Implementation works

The implementation works involves two phase. Phase 1: hardscape works (3 months) and Phase 2: softscape works (2 months).
(Source: Author (2018))



Fig. 6: Implementation works (Softscapes)

Softscape works involves plants, soils, fertilizer, pesticides and pots selection.
(Source: Author (2018))



Fig. 6: Implementation works (Hardscapes)

Hardscape works involves construction of planter box, pedestrian walkway, pump house and gazebo.
(Source: Author (2018))

Stage 4: Community Involvement

There was two program conducted to allow direct participation by the community whereas indirectly, all immediate community of the masjid As-Siddiq are free to access and utilize the space and resources provided. The two main programs are:

- i. 'Gotong royong & Kempen Kitar Semula Sambil Beramal' on the 25th February 2017 - About 300 participants from the community was involved in the half-day program
- ii. 'Recycle & Reuse program and 'Gardening with community' on the 14th May 2017 – About 350 participants from industries, agencies and communities were involved

Throughout the experience of this event, it showed positive feedback and interest from the community. The one-off program allows the community not only to participate in gardening, cleaning and arranging plants but moreover widen their opportunity to interact, communicate, doing physical actions, exchanging materials/resources in which has significantly contributed to the successful social, cultural and healthy lifestyle.



Fig. 7: Community Participation

The community contributes in 'gotong-royong', gardening, fertilizing, watering and maintenance works. Besides that, they also helps in harvesting and consuming the edible crops.

(Source: Author (2018))

Stage 5: Maintenance Works

The most challenging part dealing with landscape design is maintenance works. As this is a continuous and prolong job, the concern in keeping the maintenance in sequence and consistently attended are crucial. During the first six months after the project completed, the basic maintenance job including weeding, watering, pruning, replanting and fertilizing were conducted by the UiTM team. After the handover process taking part in October 2017, the maintenance job was fully in charge by the Masjid committee and the community.



Fig. 8: Maintenance Works

The process of maintenance consists of replanting, weeding, fertilizing, forking, pruning and watering.

(Source: Author (2018))

4.0 Issues and Imperatives

The short-term projects of REG involvement have significantly portrayed values, experiences and challenges in composing a sustainable community towards achieving a better quality of life. The issues and imperatives vary. Details are as below.

4.1 Issues

- Need to maintain momentum in the implementation and also to portray a high commitment and seriousness in the implementation of REG by the team and all participant in order keep the community motivated and consistently interested to involve with the garden
- The inconsistency and extreme changes of climate in Seri Iskandar especially around June to September 2017 was one of the major difficulties to maintain the plants
- The extreme climate has not only effected the plants but has also effect on the plant's shelter
- There are issues in plants fertility that were disturbed by the insecticides although the areas has fully controlled by pesticides
- The issues of irrigation system that has been neglected by the contractor has led to the problems in watering system in September 2017
- Water pump was damage due to the heavy rain and thunder in August 2017
- Vandalism issues are also crucial as the areas was an attraction to the school children who usually come during school break. The effects seem to increase and becoming worse. Many plants and planter areas were damage and ruined by them.
- The participation on maintenance works is still below satisfaction. This is due to lack of 'sense of belonging' to ties the community responsibility with the site
- Not all community and committee of Masjid As-Siddiq have a well-organized time, skills and expertise in doing maintenance works. Therefore the condition of the site after handover period could be problematic.

4.2 Imperatives

The approach of REG that involves collaborative participation from various agencies appears to be effective in creating awareness and commitment to the implementation of self-produce resources and subsistence living. Although there are challenges and limitations in conducting the projects, there are in fact many potential that could benefit the community in future. From the experiences, this study discovered:

- The potential of space and potential of people to involve in subsistence living
- They have a good spirit to implement the proposed actions.
- The success of organizing REG in Masjid As-Siddiq is supported by several factors: a) Good cooperation among the industries and agencies with the management team b) UiTM is part of the immediate community that triggers awareness to contribute and involve with community c) The team and communities appear to have a good connection and communication skills. d) Masjid has strategic location, good facilities, responsible committee and comfortable areas for community meetings/programs
- Maintenance of continuous contacts through meetings, discussions, visits and programs from researchers is very important to create interest and commitment among the community.



Fig. 9: Recent view of The Recycle Edible Garden
(Source: Author (2018))



Fig. 10: REG Benefits to community
Improving local community and industrial engagement and benchmarking to other institutions.
(Source: Author (2018))

The Recycle Edible Garden (REG) was a successful project, despite some difficulties and challenges in which was specially funded by the UCTC grant from Minister of Higher Education. The participation from various group including the agencies, industries and communities are acceptable and above average. The great participation and consideration from the Masjid committee members has turn this project into reality. The expectation is to see this success can continuously sustain to accommodate the site and community with edible resources that could assists daily use, increase interaction, create healthy lifestyle and improve quality if life.

5.0 Conclusion

The case study of developing the 'recycle edible garden' at Masjid As-Siddiq, Seri Iskandar shows the potential of collaborative, participatory approach in improving quality of life through immediate commitment between the professionals and the local community. The interface of practical knowledge from professionals and experiential learning from local people provide a good basis for sustainable planning which fulfils the needs and priorities of the local people as well as rational procedure in collaborative participation. The successful project of REG has given a good impact and image of Masjid as the center of development besides enhancing the ability to connects the community, encourage a healthy lifestyle through gardening, utilizing natural resources, reducing living costs through subsistence living in which will collectively lead towards improving quality of life. This kinda project that would trigger the interest of the community to utilize their surrounding, recycle or reuse waste materials that will subsequently benefit the environment, community and costs of living. Furthermore, this project would initiate interest from other institutions such as schools, community centre, hospitals and universities to impose recycle edible garden within their living environment. These benefits are parallel with Rasidi et al (2014) that highlight the strength of this participatory approach is to explore and divulge the local resources potentials and to act within the capability of the community. By this implementation and participation could rather extend the benefits to the locality based on the existing networks and linkages already present among the local communities. However, this collaborative projects needs full attention and participation. The lack of delivering process and procedure may result in the deficiency of the outcome such as interactive participation, poor attendance, lack of interest and consistency in participation.

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References

- Barles, S. (2009). Urban metabolism of Paris and its region. *Journal of Industrial Ecology*, 13(6), 898–913. <https://doi.org/10.1111/j.1530-9290.2009.00169.x>
- Bekin, C., Carrigan, M., & Szmigin, I. (2007). Beyond recycling: 'commons-friendly' waste reduction at new consumption communities. *Journal of Consumer Behaviour*, 6(5), 271-286.
- Bryan Lawson, (2013) Design and the Evidence, *Procedia - Social and Behavioral Sciences*, Volume 105, Pages 30-37, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2013.11.004>. (<http://www.sciencedirect.com/science/article/pii/S1877042813043796>)
- Faridah Ismail, Izatul Laili Jabar, Nurul Afida Isnaini Janipha, Rozana Razali (2015) Measuring the Quality of Life in Low Cost Residential Environment, *Procedia - Social and Behavioral Sciences*, Volume 168, Pages 270-279, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2014.10.232>. (<http://www.sciencedirect.com/science/article/pii/S1877042814056900>)
- Ferris, J., Norman, C., & Sempik, J. (2001). People, land and sustainability: Community gardens and the social dimension of sustainable development. *Social Policy & Administration*, 35(5), 559-568.
- Grard, B.J.P., Chenu, C., Manouchehri, N. et al. (2018) *Agron. Sustain. Dev.* Vol 38: 2. <https://doi.org/10.1007/s13593-017-0474-2>
- Harlina Mohamad Ali, Mazuiyah Mohd Dom, Muhamad Shamin Sahrums, Self-Sufficient Community through the Concepts of Collective Living and Universal Housing, *Procedia - Social and Behavioral Sciences*, Volume 68, 2012, Pages 615-627, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2012.12.253>. (<http://www.sciencedirect.com/science/article/pii/S1877042812057369>)
- Kamarul Bahrain Shuib, Habsah Hashim, Nurul Akmaniza Mohd Nasir (2015) Community Participation Strategies in Planning for Urban Parks, *Procedia - Social and Behavioral Sciences*, Volume 168, Pages 311-320, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2014.10.236>. (<http://www.sciencedirect.com/science/article/pii/S1877042814056948>)
- Lake, B. (2010). Quantifying, predicting and promoting edible gardening in Eastbourne, Aotearoa, New Zealand.
- Moquin, R. L. (2014). Growing together: Cultivating community through gardening in Kenora, Ontario.
- Nurhayati Abdul Malek, M. Mariapan, M.K.M. Shariff (2012) The Making of a Quality Neighborhood Park: A Path Model Approach *Procedia-Social and Behavioral Sciences*, 49, pp. 202-214

Nurhayati Abdul Malek, Manohar Mariapan, Nik Ismail Azlan Ab Rahman (2015) Community Participation in Quality Assessment for Green Open Spaces in Malaysia, *Procedia - Social and Behavioral Sciences*, Volume 168, Pages 219-228, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2014.10.227>. (<http://www.sciencedirect.com/science/article/pii/S1877042814056857>)

Ngah, I., & Zulkifli, A. S. (2014). Participatory approach in planning for low carbon and eco-village: A case of Felda Taib Andak. In *IOP Conference Series: Earth and Environmental Science* (Vol. 18, No. 1, p. 012150). IOP Publishing.

Rasidi, M. H., Ngah, I., & Ramli, A. R. (2014). Developing Sustainable Community Environment for FELDA Community through Public Participation Programme. *Asia-Pacific Journal of Rural Development*, 24(2).

Rasmuna Mazwan, M., & Mohd Rashid, R. (2015). The Potential of Urban Farming Technology in Malaysia : Policy Intervention, 2011(Figure 1), 1–5.

Sabrina Idilfitri, Nur Izzati Mohd Rodzi, Nik Hanita Nik Mohamad, Suria Sulaiman (2015) Public Perception of the Cultural Perspective towards Sustainable Development, *Procedia - Social and Behavioral Sciences*, Volume 168, Pages 191-203, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2014.10.224>. (<http://www.sciencedirect.com/science/article/pii/S1877042814056821>)

Siti Rasidah Md Sakip, Noraini Johari, Aldrin Abdullah, Mohd Najib Mohd Salleh (2013) Assessing Sense of Community Dimension in Residential Areas in the Malaysian Context, *Procedia - Social and Behavioral Sciences*, Volume 105, Pages 655-663, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2013.11.068>. (<http://www.sciencedirect.com/science/article/pii/S1877042813044431>)

Smita Khan (2013) Research-practice Paradigm: An Asian Perspective, *Procedia - Social and Behavioral Sciences*, Volume 105, Pages 38-47, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2013.11.005>. (<http://www.sciencedirect.com/science/article/pii/S1877042813043802>)

Wan Azlina Wan Ismail, Ismail Said, (2015) Integrating the Community in Urban Design and Planning of Public Spaces: A Review in Malaysian Cities, *Procedia - Social and Behavioral Sciences*, Volume 168, Pages 357-364, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2014.10.241>. (<http://www.sciencedirect.com/science/article/pii/S1877042814056997>)

Yahya, A. (2003). The Kampong. In Chen Voon Fee (ed), *the Encyclopedia of Malaysia – Architecture*. Kuala Lumpur: Archipelago Press.