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Explore the Rural Community Understanding and Practices on Sustainable Lifestyle in Kelantan, Malaysia

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Abstract. This study aims to explore the understanding and practices of the rural community on sustainable living in Jeli District, Kelantan. A qualitative research approach was adopted in this study by using an in-depth interview. A total of 36 respondents from three (3) locations (Jeli, Kuala Balah, and Batu Melintang) participated in this study. This findings show the rural community of Jeli has a modest understanding of a sustainable lifestyle. Besides that, several sustainable initiatives are practiced by the Jeli community, like using energy-saving products and recycling. However, the number of people involved in any sustainable lifestyle is small as compared to the total population. However, the initiatives that have been conducted could be motivation for others to start practicing sustainable living.

1. Introduction

One of the most characteristic features of modern society is that environmental concern is high and generalized [1]. However, the consumption habits are putting our resources levels at significant risk. The amount of stuff we use to live has exploded in many parts of the world, highlighting that the global extraction of materials has tripled over the past four decades, rising to an enormous 70 billion tonnes in 2010 [2]. If current trends continue, then this dramatic increase in the amount of material we consume will continue to rise as populations grow, the middle class expands, and incomes increase [2]. Therefore, a sustainable lifestyle is one of the initiatives to address the unsustainable consumption pattern among people. A sustainable lifestyle is a cluster of habits and patterns of behaviour embedded in society and facilitated by institutions, norms, and infrastructures that frame individual choice, minimize the use of natural resources and generate waste while supporting fairness and prosperity for all [3].

In terms of waste management, the basic things that can be practised for solid waste management at home are by reuse, reduce and recycle. Reducing the amount of unnecessary material that bring into a home will reduce the amount of trash. Most of the products available in the shops are over-packaged. Therefore, the consumer needs to be wiser to choose the least packaging items. Using the sturdy cloth bag to replace the plastic bag is one of the alternatives to reduce of waste generated by a household.

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Recycling and composting is a challenging practice for the first time. However, it is the most effective way to manage waste [4].

Next practice is on home water management. Installation of metering or monitoring equipment can be crucial feedback to encourage water-saving behaviour like turning off the tap when tooth brushing. Reducing household water use in developing nations can improve households' ability to meet their needs, and significantly improve quality of life [5]. For energy use, when appliances are turned off, they continue to consume small amounts of electricity, known as standby power. Reduce energy consumption from standby power by unplugging cell phone and laptop chargers when not in use. Next is turning off speakers, lights, and other electrical equipment when not in use [6]. Lastly is trading or upgrading a desktop to a laptop, which uses less energy and is portable. For example, in Singapore, they work towards reducing its greenhouse gas emissions by using less carbon-intensive fuels, and by improving energy efficiency.

Rural community is always close to environment because they still depend on it for living. Natural resources from environment provide rural people with food, medicines, game, honey, gums and resins, condiments and other goods that are exchanged or used for secondary processing, and contribute greatly to rural subsistence economies [7]. However, it's not ensure the practicing of a sustainable living among rural community. Therefore, this study was conducted to explore the understanding and sustainable lifestyle practice among rural community in Jeli, Kelantan.

2. Methodology

In this study, a qualitative approach is applied because its rules are simple and easy to comply, and the study can be further explored. A qualitative approach is often used to interpret and understand a complex situation reality through personal perspective and experience, especially when researching sensitive topics. A qualitative approach is also helpful in enhancing comprehension of examined problems that cannot be clarified. Moreover, a qualitative approach is also used to define particular factors underlying a critical phenomenon. The convenience sampling was adopted to pick respondents or interviewees..

2.1 Study Area

Jeli district is one of the districts in Kelantan and located in the western part of the state. It is strategically located near Kelantan and Perak state border. This district is approximately 129,680.26 ha and consists of three sub-districts such as Jeli, Batu Melintang, and Kuala Balah. Jeli district has been selected as a study area because most of the people are living in a rural area. Besides that, Jeli town is recognised as one of the happiest towns in 2019 by the Urban and Rural Planning Department.

2.2 In-depth Interview

A semi-structured in-depth interview was used to collect information from the respondents. Interviewees were selected based on their location. For the semi-structured interviews, several questions were prepared that covered the interview's intended scope. A semi-structured interview will allow the researcher to deepen the response during the interview session [8]. Besides, semi-structured in-depth interviews are conducted with a relatively transparent system for focused, two-way communication. It can be used to provide and receive information. Nevertheless, a semi-structured interview can guide and provide an interviewer platform for a new direction [9].

2.3 Sampling Technique

Purposive sampling is used in this study to select the respondents where it used reflects those who were available with regard to access, location, time and willingness. Purposive sampling is a relatively fast and easy way to achieve the sample size needed for the study. The number of interviewees was decided when balancing the need to obtain a rich experiential account from interviewees without compromising fair representation of interactions across potential participants' population. This balance is achieved by applying the "saturation" principle, meaning data collection is discontinued when no new information is generated [10]. A total of 36 interviewees based on location they live, as shown in Table 1.

Table 1. Number of Interviewees based on Location

Location	Number of Interviewees
Jeli	14
Kuala Balah	11
Batu Melintang	11

2.4 Data Analysis

Data obtained from respondents was captured using a voice recorder and preserved by transcription. Once voice data were transcribed, they were analysed using category-based content analysis methods as well as themes and sub-themes. The determination of themes and sub-themes is tailored to the data needs regarding research goals. Content analysis is used to analyse the interviewees understanding and practice on a sustainable lifestyle. Themes are identified based on this study's literature reviewed and theoretical framework. The data classified into common themes and sub-themes and used them to describe the phenomenon in detail.

3. Findings and Discussion

3.1 Understanding on Sustainable Lifestyle

This study found out that the understanding of the rural community in Jeli on a sustainable lifestyle is average. Some of the interviewees have a deep understanding of a sustainable lifestyle where they can explain the green practice that could positively impact the environment. According to Longo et al. [11], several factors influence people's understanding of a sustainable lifestyle or living, such as education level, type of job, the location they live, and the type of community they live. This study revealed that interviewees with high education levels like degree and diploma have excellent knowledge and understanding of sustainable living. Besides that, interviewees that working in school and government agencies have a good comprehension of the sustainable lifestyle concept. For example, one of the interviewees who are a secondary school teacher has voiced out her curiosity regarding the issue of banning plastic straw with the environment. She was explained briefly about the problem and its impact on the environment and how it is relatable with sustainability. According to Abas et al. [12], an educational approach for sustainable living has become a practical method in conveying information to students at the school level since 2000. School or education institution is the primary driver of sustainable development. Moreover, this study discovered that interviewees who live in the town have better consciousness on sustainability than those who live in the village residential area, which is in line with the study of [13]. Most of the interviewees highlighted that they get information regarding sustainable lifestyle through social media and by reading newspapers.

The interviewees that are lacking in understanding and knowledge about sustainable lifestyles have pointed out the reasons like being busy working and having less time to watch television or hearing radio about the information related to sustainable development. Thus, it will affect their children as they could not get the informal education from their parents, such as practical on saving the usage of energy or recycling things in the house. Next, the reason for lacking knowledge about sustainable development is less participating in the sustainable and environmental program conducted by the community or agencies. Its will affect their regular lifestyle as those families could not get the information and knowledge to teach their children about the sustainable practices at home such as planting the trees and composting the waste.

3.2 Waste Management Practices

This study revealed that the solid waste management practices in Jeli District are not efficient. Solid waste management in Jeli is hugely inefficient due to a lack of knowledge in proper waste handling and the importance of segregating waste properly. Most of the interviewees do not divide and separate based on the solid waste types. This might be due to their lack of time to practice recycling, and there are no

recycling facilities provided by the local authority. Proper waste handling must start from home so that our younger generation can develop awareness and the importance of waste handling. The appropriate way of handling waste is by separating organic and non-organic waste and recyclable and non-recyclable waste. Separating waste based on its categories is to avoid all the waste get mixed up in the landfill. The waste that is not separated may produce leachate, which can result in land and groundwater contamination. Other than that, mixed waste on landfill may also produce methane which is a greenhouse gas. A high concentration of methane in the environment will lead to environmental pollution and climate change [14].

However, a small number of interviewees were practising recycling where they segregate their waste base on the type and sell it to the recycling centre at the Jeli town. Some interviewees who have practised recycling at home said they were practising solid waste segregation because she can sell the recyclables to vendors. They also highlighted that the organic waste generated from the house was sent to his uncle's farm to feed the livestock where both of them gain money and reduce the cost to buy food for the livestock, respectively. It proves that along with reducing waste, practising a sustainable lifestyle can also benefit those who practice it.

3.3 Transportation and Fuel Consumption

This study revealed that most of the community in the rural area of Jeli district have their own transportation. However, the usage of transportation and fuel consumption among the Jeli community is moderate, and there is minimal initiative can be found among the Jeli community to reduce transportation usage and fuel consumption. In fact, taxi is the only public transport that can be found in Jeli District. According to Mydlarz and Wieruszewski [15] sustainable transportation might consist of reducing energy consumption initiatives where includes options and project solutions that reduce energy consumption, support the energy-efficient movement of people and goods, and use resources with lower operations and maintenance requirements. Besides that, sustainable transportation should reduce consumption of material resources via includes design solutions that reduce the consumption of virgin material resources, use recycled materials in construction, require less infrastructure in the solution, or increase durability and life of the design. The most crucial component in sustainable transportation is to reduce impacts to environmental resources through solutions that minimize impacts on surrounding ecosystems, encourage and support biodiversity, and reflect the historical and cultural context.

On average, most of the family have two (2) vehicles that including cars and motorcycles. Some of the interviewees highlighted that they are using the bike as the main transportation daily. However, there is very limited interviewees point out that they are using a car as the main transportation daily. They use the vehicle only at the weekend to travel to another district for shopping or travel for a holiday trip. Therefore, the majority of interviewees spend above RM200 per month for fuel consumption. Some interviewees spend less than RM100 per month on fuel consumption. The limited facilities like shopping malls and entertainment centers available in town are the main reason most of Jeli's communities travel out. Most of the interviewees have agreed that the Kota Bharu district is the leading destination for travel at the weekend. There is a small number of interviewees point out that they travel across states like Kedah dan Perak to buy basic needs and goods. Besides that, this study revealed that the pattern of transportation among the rural community in Jeli influenced by the monthly income earned by households, which is in line with 's study [16].

3.4 Electricity and Water Consumption

For electricity consumption, this study found out that most interviewees practised energy saving by switching off the unused electrical tools. Rural community in Jeli is aware that they need to reduce the electricity consumption to control the electrical bill. On average, electricity bills been charged to the Jeli community are RM70. However, the bill's statement was based on the lifestyle and household number [17]. For example, interviewees working as a caregiver for children and the electricity bill per month are more than RM100. However, most interviewees were pointed out that they will buy the energy-saving electrical applicant or tools. Besides that, the water consumption among the Jeli community is

entirely sustainable based on the low water bill charged every month, which is below RM10. The interviewees who live in the village still using groundwater as the primary water source. However, previous studies show that groundwater is often contaminated with fluoride, arsenic, iron, and salts [18]. Therefore, state government need to take the initiative to improve the water supply services at the village.

4. Recommendation

The effort to raise community understanding and knowledge of sustainable development is through a campaign such as free-talking. Free-talk is one-way local groups can understand and transition to healthy living. In growing people's awareness of a healthy lifestyle, launching the dialogue early for young generations is essential. The free-talk initiative will educate young people about 3R's, eliminating waste, resource conservation, and content recycling. We can also encourage them to turn off all appliances and lights when not in use. During this curriculum, presentations will be performed to improve their awareness and best practices. Then, kids should do this good practice because their interests should support our climate. An example is a New York City-based system. The New York City Education Department (NYCDOE) has appointed 1,700 schools as volunteer "Sustainability Coordinators." We aim to reduce waste, improve recycling and conserve electricity. Teachers and chosen students went around their city to raise awareness of their role in protecting the environment. Community populations are mindful of the atmosphere and have chosen to live their lives sustainably.

5. Conclusion

Rural community understanding and practices on sustainable living are acceptable because there is a lack of awareness program conducted to them. Therefore, education and access to mass media are the major factors that influenced the understanding and practices of community on sustainable living. Most of the people gained information on sustainability from mass media like televisions and social media. Some are aware of sustainability, but due to the lack of facilities, the activity could not be done. It is the responsibility of authorities in providing adequate facilities to support the sustainable lifestyle of the rural community.

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