

# Assessment of Knowledge and Awareness Towards Sustainable Development Goals and Well-being of Rural Area: A Case Study of Kg. Benoni, Papar, Sabah

Farah Nastasya Redzuan<sup>1</sup>, Junaidah Jailani<sup>2\*</sup>

<sup>1,2</sup>Faculty of Civil Engineering and Built Environment,  
Universiti Tun Hussein Onn Malaysia, Batu Pahat, 86400, MALAYSIA

\*Senior Lecturer, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia

DOI: <https://doi.org/10.30880/rtcebe.2023.04.02.003>

Received 06 January 2022; Accepted 15 January 2023; Available online 20 July 2023

**Abstract:** The Sustainable Development Goals (SDGs) requires everyone's participation, including the general public; yet, Malaysian residents' understanding of the government's SDGs objective remains low. The purpose of this study was to determine the level of knowledge and awareness of the SDGs, as well as the community's well-being in the rural area at Kg. Benoni, Papar, Sabah. The community of Kg. Benoni was given survey questionnaires based on knowledge, awareness, and perception, and the data were analyzed using SPSS version 26. Descriptive statistics showed that the respondents have high knowledge and awareness of SDGs and their perceptions of current development were mainly positive. The relationship between variables was determined using Spearman's rho coefficient correlation. The results showed negatively moderate relationship between knowledge and awareness ( $r = -.315$ ,  $N = 167$ ,  $p = .00$ ) and strongly positive relationship between well-being and awareness ( $r = .746$ ,  $N = 167$ ,  $p = .00$ ). Thus, strategic interventions should be undertaken to include the public in sustainable development through a community-based campaign that involves the rural population in making decisions concerning rural problems.

**Keywords:** Sustainable development awareness, Rural Sustainability, Well-being

## 1. Introduction

Malaysia has been involved with sustainable development through several plans for decades. Malaysia took its initial steps toward sustainable development in the 1970s, implementing New Economic Policy (NEP) to reduce poverty and reorganize social disparities [2]. Malaysia's economic development has been effective in improving living circumstances. Furthermore, the Malaysia 12th Plan aspires to a wealthy, equitable, and sustainable country by eradicating poverty and narrowing socioeconomic

disparities through the implementation of more extensive and targeted agenda [1]. It has been aligned to achieve the Sustainable Development Goals.

Besides that, the implementation of the SDGs necessitates the continuous participation of all individuals: Governments, the commercial sector, civil society, and the general public [2]. As a result, to live a better life, the Sustainable Development Goals need everyone's action and attention. The High-Level Political Forum on Sustainable Development concluded with calls for local communities and civil society to take a larger role in achieving the SDGs [3]. Furthermore, the goal of public participation in sustainable development was to promote transparency and openness in government administration, as well as to establish engagement in development decisions and efforts as stated in [4]. Thus, it is important to be aware of the notion of sustainability and participate in the sustainable development agenda.

The purpose of this study is to evaluate the level of knowledge and awareness towards SDGs among communities and the impact of current development especially in a rural area. Considering that the local community's active engagement in the design and implementation of a sustainable development program is important to comprehend their view of development issues affecting their community, as well as to be aware of their knowledge, feelings, and behaviour. Local people should be engaging in creating and implementing sustainable development through establishing their needs, priorities and development options.

## **2. Sustainable Development in Rural Area**

Sustainable development in the rural area is just as important as urban area to increase economic growth and eradicate the poverty rate. It is equally crucial to have an impact on rural communities because the rural population receives fewer educational, health, and social services, which has a detrimental impact on their well-being [5]. The word "rural area" refers to land outside of towns and cities. Rural area are characterized by their low population density, low cost of living, low poverty and wages, and wealth of natural resources. As of 2020, rural Malaysia is inhabited by around 22.84 per cent of the population [6]. The world's economic and technical growth is becoming increasingly sophisticated to fulfil the requirements of a rising population especially in rural areas.

The common issue of sustainable development in rural area is due to the lack of approach to the sustainable development term [7]. Rural sustainability aims include lowering differences in quality of life between rural and urban regions and strengthening national cohesion by equalizing discrepancies between individual rural districts, with a focus on preserving rural areas' cultural and social identity [8]. Furthermore, the process of sustainable development in rural areas should include local community engagement in decision-making to determine their needs, implementation, and development options. It comprises the utilization of local resources and a shift in agricultural practice [9].

## **3. Methodology**

Through literature review the survey questionnaire of knowledge, awareness and perception was developed by adopting previous studies questionnaire tools and indicators conducted by [2], [10] and [11]. There were 4 sections in the questionnaire. Section 1 was about the respondents' demographic background. Section 2 involved knowledge towards Sustainable Development Goals (SDGs) with 7 items where the answer choices are either 'Yes' or 'No'. In Section 3, the questions was about the community's awareness towards SDGs using 5-point Likert scale which strongly disagree, disagree, neutral, agree and strongly agree. There were 21 items based on the content of the three sub-dimensions which is environment, social and economy. Section 4 dealt with the community's perception of the current development in the area. The number of well-being indicator used in the questionnaire was 9 indicators where Malaysia Quality of Life Index (MQLI) indicator of the positive and negative signs was used as answer choices. An evaluation of the questionnaire was done by experts to assess the effectiveness of the instructions and whether it fulfils the study's objective. Thus, a new set of

questionnaire was established based on the reviews and comments from the experts. The questionnaire was distributed to the community at Kg. Benoni, Daerah Papar, Sabah based on the sample size determination table developed by [12]. A total of 167 respondents were obtained with a 95% confidence level with  $\pm 7.26\%$  margin of error. The survey was first delivered by hand, but due to financial and time constraints, as well as a desire to reduce the use of paper, both hard-copy and online methods were used. The online survey was distributed through the messaging application (Whatsapp) to the community's messaging group. While the hard-copy survey was distributed directly to respondent's houses with practising social distances. The responses were gathered during four weeks and all the responses were kept confidential.

#### 4. Results and Discussion

##### 4.1 Respondent Demographic

Demographic sections in the survey questionnaire was to investigate the characteristics of a population. It covers respondents group of age, occupation status and education level as stated in Table 3. It shows that the survey were mostly participated by age group of 20-29. Aside from that, the majority of the respondents were employed and quite well educated.

**Table 1: Community's demographic background**

Variables		Percentage (%)
Age group	20 – 29	26
	30 – 39	25
	40 – 49	20
	50 – 59	11
	60 – 69	10
	70 and above	8
Occupation status	Student	9
	Civil servant	28
	Private sectors	17
	Self-employment	19
	Unemployed	27
Education level	Primary school	1
	High school	48
	Tertiary	51

**Table 2: Community's knowledge towards SDGs in percentage**

No.	Items	Yes (%)	No (%)
1.	I have heard about the term sustainable development before.	62%	38%
2.	I recognize that the meaning of the word "Sustainability" is the ability to be maintained at a certain rate.	66%	34%
3.	I am aware of the fact that Sustainable Development Goals are targeted to achieve by the year 2030.	36%	64%
4.	I know that people in the world must have worked together to achieve sustainable development.	84%	16%
5.	I know that environmental protection, economic growth and social equity are the fundamental elements of a nation.	86%	14%
6.	I know that if we use natural resources excessively (e.g: water, clean air, oil & gas etc.) it has a negative impact on the well-being of future generations.	96%	4%

7.	I know everyone in the world must have access to good education to achieve the goal of sustainable development.	84%	16%
8.	I know greenhouse gas emissions can be reduced by increasing the use of renewable resources (e.g. wind energy, solar energy, biogas etc.).	93%	7%

Table 2 shows that the community in Kg. Benoni has a high level of general knowledge. The percentages of positive responses ranged from 36% to 96%. Item 6 "I know that if we use natural resources excessively (e.g: water, clean air, oil & gas etc.) it has a negative impact on the well-being of future generations." had the greatest proportion of "Yes" responses, with 96%. It shows that the community is well-versed in the consequences of over usage of natural resources. Understanding the repercussions will assist in reducing excessive consumption and encouraging people to safeguard natural resources. Furthermore, while making decisions to protect natural resources, experts would benefit from community awareness of the impact on the environment and community health. It is because professionals sometimes overlook community knowledge, which gives critical political and technological insights [13]. For the negative response, the highest was item 3 which is "I am aware of the fact that Sustainable Development Goals are targeted to achieve by the year 2030" with 64% of the total of 167 respondents. This shows that the local community as Kg. Benoni is still not aware of the government's goal of sustainable development.

**Table 3: Community's awareness towards SDGs in percentage**

No.	Items	SD (%)	D (%)	N (%)	A (%)	SA (%)
1.	The use of public transport to nearby destinations can maintain air stability.	0	7.2	12.6	22.8	57.5
2.	Every individual has the responsibility to protect existing resources (water, air, soil etc.) for future generations to survive ecological problems.	0	0.6	2.4	21.6	75.4
3.	I think global warming poses a serious threat to the future of our world if cautions are not taken.	0	0.6	0.6	18.6	80.2
4.	I think that every individual is responsible for recycling waste so that the source of raw materials can be used by future generations.	0	0	1.8	11.4	86.8
5.	The activities of governmental and non-governmental organizations involved in preserving the environment should be supported.	0	0	2.4	18	79.6
6.	Any activity that damages natural life must be punished for destroying biodiversity.	0.6	0	3.6	18.6	77.2
7.	Energy-saving products should be preferred to use energy sources for a longer time.	0	0	1.2	9	89.8
8.	Equal opportunities should be offered to individuals in society (women/men, rich/poor, race/religion etc.).	0	0.6	3	13.2	83.2
9.	An environment that provides lifelong learning to every individual in society needs to be created.	0	0	1.2	19.2	79.6
10.	Individuals should be provided with aid and social services (such as nurseries, shelter homes, social assistance foundations etc.).	0	3	4.8	24.6	67.7
11.	Access to education and health services should be provided to all individuals in society.	0	0	0.6	7.8	91.6
12.	Individuals should be provided with a safe environment throughout their life.	0	0	1.8	5.4	92.8
13.	Interaction of cultures in society should be supported and developed.	0	0	3	11.4	85.6

14.	Society must take responsibility to keep the well-being of individuals and families.	0	0	1.2	6.6	92.2
15.	We must use current economic resources sustainably with an emphasis on future generations.	0.6	0	7.2	22.	70.1
16.	Individuals should spend according to their wants and desires regardless of their needs.	46.7	22.8	9.6	10.8	10.2
17.	Economic development should be planned to prevent unemployment.	0	0	3	4.8	92.2
18.	Economic policies that do not destroy natural resources must be established.	0	0.6	3	10.8	85.6
19.	Investments in the agriculture and livestock sectors should be supported for economic development.	0	0	2.4	14.4	83.2
20.	Government economic policy should increase sustainable production despite having to spend more money.	1.8	10.8	19.8	26.9	40.7
21.	Everyone needs to be tolerant to bridge the economic gap in society.	0	1.2	9.6	16.8	72.5

\*SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

In Table 3, most of the statements were responded positively by the respondents with either “Agree” or “Strongly Agree”. It shows the positive awareness among the community at Kg. Benoni towards SDGs. The item statements were based on three sub-dimension: environment (item 1 – item 7), social (item 8 – item 14) and economy (item 15 – item 21). The highest percentage was “Strongly Agree” for the sub-dimension environment which was item 7 “Energy-saving products should be preferred to use energy sources for a longer time” with a percentage of 89.8%. This indicates that the community at Kg. Benoni knows the benefits of using energy efficiency towards the environment includes in reducing green-house gas emission.

For sub-dimension of social, it shows that all the items had percentage range from 67.7% to 92.8% for “Strongly Agree” respond. The highest percentage was item 12 which is “Individuals should be provided with a safe environment throughout their life”. While social equity, access in education and cultural interaction is important, the community at Kg. Benoni was aware that safety environment is needed. The safe environment could be the safety of community itself from burglars or environmental wise by reducing pollution that could bring harm to the well-being and health of the community. Item 14 percentages was nearly close to item 12 percentages with 92.2%, which makes it the second highest of positive respond from the respondents. Item 14 statement was “Society must take responsibility to keep the well-being of individuals and families”. Thus, the community at Kg. Benoni were well aware that safety and well-being is essential in providing safe living environment.

However, in economy sub-dimension, the highest percentage for negative respond was 46.7% which is “Strongly Disagree” for item 16 “Individuals should spend according to their wants and desires regardless of their needs”. It is because the item is a negative worded statement and had been recoded accordingly in SPSS program. Most of the respondents strongly disagree that an individuals should spend money recklessly. Overall the respondents had positive awareness towards SDGs. It also parallel to previous study from where the items was adopted from [10] and [2].

#### 4.2 Perspective of Well-Being of Community towards Current Development

The well-being was measured by the community’s perception towards current development in the area. The index used was economy, social and environment and indicators used was positive and negative.

**Table 4: Community's perception towards current development**

<b>Index</b>	<b>Indicators</b>	<b>(+)</b>	<b>(-)</b>
Economy	1. Poverty rate	80%	20%
	2. Home ownership	74%	26%
	3. Vehicle ownership	92%	8%
Social	1. Accessibility to facilities	89%	11%
	2. Social problem	80%	20%
	3. Neighborly relation	97%	3%
Environment	1. Water quality	60%	40%
	2. Air quality	76%	24%
	3. Natural disaster	93%	7%

Table 4 shows that high positive perception towards the economy development at Kg. Benoni area. Poverty rate was 80% meanwhile home ownership and vehicle ownership was 74% and 92% respectively. It indicates that the area near Kg. Benoni had been experiencing some development in last few years that contributes to high income rate towards the community. The development was a commercial centre with residential that was developed in 2020. Thus, it gave the job opportunity towards community in Kg. Benoni which some of them won't have to travel far to urban area for job opportunity. Other than that, rising income rates allow most locals in this tiny village to support their families and themselves, as well as offer key necessities for a family's daily routine, such as vehicle and house ownership.

Besides that, social well-being index showed positive result among the community. In neighbourly relation the percentage of respondents that give positive perception was 97%. The outcome from the conducted study can be understood that the locals are practicing social harmony by interaction, visits and as such. Thus, it indicates that neighbourly relation could create healthy environment among the community without issues or misunderstanding. For accessibility to facilities, a community could be developed when basic amenities was provided. Facilities such as street lights, mosque, village's halls, computer centre, clinic etc. would give comfort to the community.

For water quality indicator the respondents gave positive perception with 60%. However, some respondents gave 40% of negative perception. This might be due to industrial waste where poultry farm was near the rivers. The river was also the source of raw water intake for water treatment in the town. For air quality and natural disaster shows positive perception among the community. It show that the system such as drainage was managed well for handling the natural disaster such as flood from flooding the area.

#### 4.3 The Relationship between Community's Knowledge with Awareness and Well-Being with Awareness

Normality test had been conducted to the variables and the result showed that variables are non-parametric. Hence, Spearman's rho correlation method was used to determine the relationship and statements that were negatively phrased were recoded correspondingly.

**Table 5: Correlation between knowledge with awareness and well-being with awareness**

<b>Relationship</b>	<b>No. of respondents</b>	<b>Spearman's rho correlation coefficient</b>
Knowledge with awareness	167	-.315
Well-being with awareness	167	.746

From Table 5, there is a moderate negative relationship between community's knowledge and awareness towards SDGs ( $r = -.315$ ,  $N = 167$ ,  $p = .00$ ). It indicates that there were some relationship between knowledge and awareness variables. However, both variable were affected by randomness. Community's awareness and knowledge was based on their feelings (awareness) and the knowingness of a fact (knowledge). Both can be affected by other variables for example community's perception and reaction (well-being). Thus, community's well-being and awareness had a very strong positive relationship ( $r = .746$ ,  $N = 167$ ,  $p = .00$ ). It means that both variables moves towards the same proportion and direction most of the time. Hence, it shows that community's awareness will determine their perception towards the development in the area. The higher the positive reactions, the higher the level of awareness of SDGs.

## 5. Conclusion

Overall the community level of knowledge and awareness towards SDGs is high, it also shown by their perceptions on the current development at the area by using sustainable development indicators. Thus, local community would have the desire to participate in government's sustainable development agenda. Besides that, well-being that was conducted on community at Kg. Benoni can be conclude that some development transformation occurred in Kg. Benoni and the surrounding area. As a result, future study might delve deeper into the challenges of translating SDG knowledge and awareness as well as well-being into actions. Aside from that, further study on the attitudes and practices of the local community toward sustainability at home should be evaluated in a more detailed context. Thus, the report and statistics derived from the study data might be utilized to establish a strategic approach to rural development.

## Acknowledgement

The author would like to thank community at Kg. Benoni, Papar, Sabah for participating in the survey questionnaire. The author would also like to express gratitude to Universiti Tun Hussein Onn Malaysia for its support.

## References

- [1] "Malaysia Voluntary National Review (VNR)," *Econ. Plan. Unit, Prime Minist. Dep.*, pp. 1–142, 2021, [Online]. Available: <https://sustainabledevelopment.un.org/memberstates/malaysia>.
- [2] I. Nusrat, Afroz and Zul, "Assessment of Knowledge, Attitude and Practice of University Students towards Sustainable Development Goals (SDGs)," *J. Indones. Sustain. Dev. Plan.*, vol. 1, no. 1, pp. 31–44, 2020, doi: 10.46456/jisdep.v1i1.12.
- [3] United Nations Sustainable Development, "Increased community-based engagement seen as critical to build climate action and achieve the Sustainable Development Goals," 2019. <https://www.un.org/sustainabledevelopment/blog/2019/07/increased-community-based-engagement-seen-as-critical-to-build-climate-action-and-achieve-the-sustainable-development-goals/> (accessed Jan. 04, 2022).
- [4] M. Yvonne, "Public participation for sustainable development in local cities," *46th ISOCARP Congr.*, pp. 1–7, 2010.
- [5] I. Del Arco, A. Ramos-Pla, G. Zsembinszki, A. de Gracia, and L. F. Cabeza, "Implementing sdgs to a sustainable rural village development from community empowerment: Linking energy, education, innovation, and research," *Sustain.*, vol. 13, no. 23, 2021, doi: 10.3390/su132312946.
- [6] Statista, "Malaysia: share of rural population," 2020. <https://www.statista.com/statistics/760965/malaysia-share-of-rural-population/> (accessed Jan. 04, 2022).

- [7] N. N. Semenova, S. G. Busalova, O. I. Eremina, S. M. Makeikina, and I. A. Ivanova, "Assessment of sustainable development of rural areas of Russia," *Indian J. Sci. Technol.*, vol. 9, no. 14, 2016, doi: 10.17485/ijst/2016/v9i14/91518.
- [8] W. Sobczyk, "Sustainable development of rural areas Zrównoważony rozwój obszarów wiejskich Wiktoria Sobczyk Department of Environmental Engineering and Mineral Processing," *Probl. Sustain. Dev.*, vol. 9, no. 1, pp. 119–126, 2014.
- [9] I. Ngah, "TOWARDS SUSTAINABLE RURAL DEVELOPMENT AND PLANNING IN MALAYSIA," 2015.
- [10] A. C. Atmaca, S. A. Kıray, and M. Pehlivan, "Development of a Measurement Tool for Sustainable Development Awareness," *Int. J. Assess. Tools Educ.*, vol. 6, no. 1, pp. 80–92, 2019, doi: 10.21449/ijate.518099.
- [11] M. Nurasyikin, "Indicators and Index for Rural Area: Case Study at Pekan Parit Raja, Johor, Malaysia," *IOSR J. Humanit. Soc. Sci.*, vol. 12, no. 1, pp. 75–82, 2013, doi: 10.9790/0837-1217582.
- [12] R. V. Krejcie and D. W. Morgan, "Determining Sample Size for Research Activities," *Educ. Psychol. Meas.*, vol. 30, no. 3, pp. 607–610, 1970, doi: 10.1177/001316447003000308.
- [13] J. Corburn, "Bringing Local Knowledge into Environmental Decision Making," *J. Plan. Educ. Res.*, vol. 22, no. 4, pp. 420–433, 2003, doi: 10.1177/0739456x03022004008.