

## **Knowledge, Attitude and Awareness of Sustainable Development Goals (SDGs) among students**

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### **Abstract**

*The SDGs are a group of 17 targets for achieving peace, prosperity, and the eradication of poverty. The United Nations has set a target to achieve these goals by 2030, and achieving this requires widespread awareness and understanding of the SDGs. This study aimed to measure the level of knowledge, attitude, and awareness of SDGs among 200 students from various colleges within Kannur University in Kerala. The study also conducted a multiple regression analysis to understand the impact of knowledge and attitude towards SDGs on awareness. The results of the study indicated that students had a basic level of knowledge about SDGs and a positive attitude towards them. However, the study also highlighted the need for more awareness activities and efforts to promote the awareness of SDGs among students in Kannur University. Additionally, the study found that both knowledge and attitude towards SDGs significantly influenced students' awareness, with knowledge having a positive impact on awareness and attitude having no significant impact. Based on these findings, the study suggests that educational institutions should conduct various awareness activities and efforts to promote the level of SDG awareness among students.*

### **Key Words**

Sustainable development, SDGs, Awareness, knowledge, attitude

## Introduction

Sustainable Development Goals (SDGs) have been introduced by the United Nations for a better future for people worldwide (Hafsah, Darsono, & Hermawan, 2019). The SDGs include 17 goals aimed at protecting the peace and prosperity of people and the planet by 2030 (United Nations). These 17 goals are interrelated and cover issues such as poverty, education, gender equity, climate change, and others. SDGs are applicable to both developed and developing nations, and all countries in the world have taken initiatives to implement various actions towards the attainment of SDGs. Moreover, government, business, and research have paid considerable attention to SDGs (Yuta, C, & Baars, 2019). The level of knowledge, attitude, and awareness of SDGs varies from person to person and from country to country. Therefore, understanding the level of awareness of SDGs is critical to achieving the UN target by 2030

## Literature Review

**(Somanchi, G.IIankumaran, & Balakrishnan, 2022)** conducted a qualitative study to explore awareness of the SDGs among students. The study found that higher education plays a considerable role in achieving the SDGs, and also observed that students prioritize goals such as no poverty, good quality education, and good health and well-being.

**(Omisore, M, & P, 2017)** mentioned that the awareness and attitude of students towards SDGs was fair. However, the study found that the students had a low level of understanding about SDGs, which had negative implications for the SDGs. Therefore, it is important to improve the level of understanding among students to achieve the SDGs successfully.

**(Leiva-Brondo, Lajara-Camilleri, & Vidal-Meló, 2022)** observed that students in Spanish universities are aware of the SDGs; however, they do not possess thorough knowledge about the 17 SDGs. Thus, the study suggests that different strategies need to be implemented in order to promote awareness among the student community in Spanish universities.

**(Siew, 2021)** pointed out that students in Malaysian universities have moderate awareness of sustainable development and the 17 SDGs. More activities need to be implemented by universities to promote awareness among students. The study also observed that considering sustainable development issues, food wastage is the main problem in many Malaysian cities.

**(Hafsah, Darsono, & Hermawan, 2019)** observed a high degree of SDG understanding among the students of Universitas Muhammadiyah Yogyakarta. The study also sought to examine the impact of gender and information accessibility on SDG awareness. The study's findings indicated that students' awareness of the SDGs was significantly impacted by the information's accessibility, and that females had a higher level of awareness than males.

Overall, the literature review suggests that while students demonstrate varying levels of awareness and understanding of the SDGs, there is a need for improved knowledge and awareness among students to effectively contribute to the achievement of the SDGs in Kerala.

### **Objectives of study**

1. To assess the level of knowledge of SDGs among students
2. To identify the attitude of students towards SDGs
3. To evaluate the awareness of students regarding the role of SDGs in promoting sustainable development.
4. To analyze the impact of both knowledge and attitude towards SDGs on students' awareness of SDGs for sustainable development in Kerala

### **Research Methodology**

The research design for the study is descriptive and analytical. The sampling method used is simple random sampling, and the sample size of the study is 200, selected from undergraduate students of various colleges under Kannur University in Kerala. The primary data is collected using a structured questionnaire. Chronbach's alpha was used to assess the reliability of the scaled questions, and all the scaled questions were found to have acceptable reliability with Chronbach's alpha values exceeding 0.7. To determine the relationship between knowledge, attitude, and awareness of SDGs for sustainable development, multiple regression analysis is used.

### **Analysis and Discussion**

**Table 1: Profile of the data**

		<b>Frequency</b>	<b>Percentages</b>
Name of Discipline	Commerce	80	40
	Management	24	12
	Science	96	48
Gender	Male	64	32
	Female	136	68
Inclusion of environmental- Awareness in syllabus	Yes	168	84
	No	32	16

*Source: Primary data*

Table 1 shows that there were 64(32%) male and 136(68%) female students, with 80(40%) from commerce discipline, 24(12%) from management and 96(48%) from science discipline. The study also revealed that 168 (84%) students have studied the environmental studies as a part of their syllabus while 32(16%) have not studied it.

**Table 2: Sources of awareness on SDGs**

Variables		Not at all Informative	Slightly Informative	Moderately Informative	Very Informative	Extremely Informative	Mean	S.D
Internet	N	0	4	24	96	76	4.22	.731
	%	0	2.0	12.0	48.0	38.0		
Social Media	N	0	8	28	84	80	4.18	.819
	%	0	4.0	14.0	42.0	40.0		
Teachers	N	4	16	56	72	52	3.76	.994
	%	2.0	8.0	28.0	36.0	26.0		
Friends and relatives	N	16	48	44	52	40	3.26	1.249
	%	8.0	24.0	22.0	26.0	20.0		
News Paper	N	4	20	28	84	64	3.92	1.019
	%	2.0	10.0	14.0	42.0	32.0		
Television	N	0	24	48	76	52	3.78	.968
	%	0	12.0	24.0	38.0	26.0		

Source: Primary data

The results of source of awareness depict that internet (M=4.22) was the main source of awareness and it was followed by social media (M=4.18) and news paper (M=3.92). These results indicate the growing importance of online platforms and social media in disseminating information about SDGs to the younger generation.

### Level of knowledge of SDGs among students

**Table:3 Level of knowledge and understanding of SDGs among students**

Variables		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D
To achieve sustainable development all people in the world must have access to a good education	N	16	16	72	60	36	3.42	1.118
	%	8.0	8.0	36.0	30.0	18.0		
I know that the excessive utilization of natural resources is impacting the welfare of future	N	24	12	68	56	40	3.38	1.218
	%	12.0	6.0	34.0	28.0	20.0		

generations								
I know that environmental conservation, economic growth, and social equity are the fundamental element of a nation	N	16	16	72	60	36	3.42	1.110
	%	8.0	8.0	36.0	30.0	18.0		
I know that our existence is dependent on the presence of healthy oceans and seas.	N	16	28	68	56	32	3.30	1.139
	%	8.0	14.0	34.0	28.0	16.0		
I know that Greenhouse gas emissions can be reduced by the increased use of renewable resources	N	20	8	68	68	36	3.46	1.138
	%	10.0	4.0	34.0	34.0	18.0		

Source: Primary data

The results in Table 3 indicate that students have a moderate understanding of important concepts related to sustainable development. Specifically, they recognize that greenhouse gas emissions can be reduced through the increased use of renewable resources (M=3.46). Additionally, they have knowledge of the fundamental elements of a nation (M=3.42) and the idea that access to a good education is essential for achieving sustainable development (M=3.42). The result meant that students possess a basic knowledge of sustainable development concepts, which is a positive indication of their potential to contribute towards achieving SDGs.

### Attitude of students towards SDGs

Table:4 Attitude of students towards SDGs

Variables		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D
I donate what I don't use	N	0	44	68	52	36	3.40	1.022
	%	0	22	34	26	18		
I don't waste food and support local farmers	N	0	32	40	76	52	3.74	1.019
	%	0	16	20	38	26		
Help to educate children in my community	N	0	32	48	52	68	3.78	1.085
	%	0	16	24	26	34		
I should promote gender equality	N	0	32	40	56	72	3.84	1.086
	%	0	16	20	28	36		
I don't waste water	N	0	28	36	60	76	3.92	1.058
	%	0	14	18	30	38		

I use energy-efficient appliances	N	0	32	52	56	60	3.72	1.062
	%	0	16	26	28	30		
I should try to create job opportunities	N	0	28	44	56	72	3.86	1.061
	%	0	14	22	28	36		
I support the marginalised group	N	0	24	60	64	52	3.72	.983
	%	0	12	30	32	26		
I try to use public transport or cycle	N	0	36	44	56	64	3.74	1.095
	%	0	18	22	28	32		
I should avoid the use of plastic maximum possible	N	0	28	48	52	72	3.84	1.068
	%	0	14	24	26	36		
I should plant trees	N	0	32	32	56	80	3.92	1.095
	%	0	16	16	28	40		
I should act now to stop global warming	N	0	28	52	52	68	3.80	1.061
	%	0	14	26	26	34		

Source: Primary data

Table 4 presents the results of the attitude towards SDGs, which indicates that students have a strong desire to engage in environmentally friendly behaviours such as planting trees (M=3.92) and saving water (M=3.92). Additionally, they agree on the importance of creating job opportunities (M=3.86), promoting gender equity (M=3.84), and avoiding the use of plastic (M=3.84) as a means of achieving sustainable development. The result shows that students have a positive attitude towards SDGs and are willing to take action towards achieving them.

### Awareness of students towards SDGs

**Table:5 Awareness of students towards SDGs**

Variables		Not at all aware	Slightly aware	Somewhat aware	Moderately aware	Extremely aware	Mean	S.D
SDGs 1- No poverty -Aims poverty eradication	N	32	52	44	44	28	2.92	1.297
	%	16.0	26.0	22.0	22.0	14.0		
SDGs 2 -Zero hunger-to end hunger, achieve food security and improved nutrition	N	44	28	64	40	24	2.86	1.300
	%	22.0	14.0	32.0	20.0	12.0		
SDGs 3-Good Health and Well-being	N	12	40	52	60	36	3.34	1.162
	%	6.0	20.0	26.0	30.0	18.0		

SDGs 4 -Quality education-Aims to promote quality education	N	20	32	56	52	40	3.30	1.240
	%	10.0	16.0	28.0	26.0	20.0		
SDGs 5 -Gender equality-Promote gender equality and women empowerment	N	16	28	60	60	36	3.36	1.165
	%	8.0	14.0	30.0	30.0	18.0		
SDGs 6-Clean Water and Sanitation	N	28	28	40	60	44	3.32	1.337
	%	14.0	14.0	20.0	30.0	22.0		
SDGs 7 Affordable and clean energy	N	20	48	40	52	40	3.22	1.288
	%	10.0	24.0	20.0	26.0	20.0		
SDGs 8 Decent work and economic growth	N	24	24	56	64	32	3.28	1.220
	%	12.0	12.0	28.0	32.0	16.0		
SDGs 9 Industry innovation and infrastructure	N	16	44	64	44	32	3.16	1.175
	%	8.0	22.0	32.0	22.0	16.0		
SDGs 10 Reduced inequalities-Aims to reduce inequality within and among the count	N	24	36	64	52	24	3.08	1.183
	%	12.0	18.0	32.0	26.0	12.0		
SDGs 11 Sustainable cities and communities	N	24	40	72	40	24	3.00	1.169
	%	12.0	20.0	36.0	20.0	12.0		
SDGs 12 Responsible consumption and production	N	20	48	56	52	24	3.06	1.176
	%	10.0	24.0	28.0	26.0	12.0		
SDGs 13 Climate action	N	16	28	84	48	24	3.18	1.074
	%	8.0	14.0	42.0	24.0	12.0		
SDGs 14 Life below water	N	20	48	48	68	16	3.06	1.141
	%	10.0	24.0	24.0	34.0	8.0		
SDGs 15 Life on land	N	16	36	72	44	32	3.20	1.152
	%	8.0	18.0	36.0	22.0	16.0		
SDGs 16 Peace, justice and strong institution	N	16	24	68	64	28	3.32	1.106
	%	8.0	12.0	34.0	32.0	14.0		



SDGs 17 Partnership for the goals	N	24	48	68	36	24	2.94	1.176
	%	12.0	24.0	34.0	18.0	12.0		

Source: Primary data

The Table 5 reveals that students in the study have a moderate awareness towards gender equality (SDG 5), followed by good health and well-being (SDG 3). The results also indicate that students have some awareness of clean water and sanitation (SDG 6) and peace, justice and strong institutions (SDG 16), with similar mean scores of 3.32. However, the result also shows that students have relatively low awareness towards SDG 1, which focuses on ending poverty (M=2.92) and SDG 2, which emphasizes on zero hunger (M=2.86). These results indicate a need for more awareness-raising activities and educational efforts that focus on SDGs in order to enhance students' understanding of the importance of achieving the SDGs.

### **Impact of knowledge and attitude towards SDGs on students' awareness of SDGs**

Impact of knowledge and attitude towards SDGs on students' awareness of SDGs analysed with the help of multiple regression analysis. The hypotheses were tested-

H1: There is significant impact of knowledge of SDGs on awareness of SDGs

H2: There is significant impact of attitude towards SDGs on awareness of SDGs

The dependent variable awareness of SDGs was regressed on independent variables of knowledge of SDGs and attitude towards SDGs. The results of the analysis indicated that the regression model met assumptions such as normality of residuals, homoscedasticity, absence of serial correlation as evidenced by a Durbin-Watson value of 2.25 which is slightly more than the threshold value of 2, suggesting the absence of serious serial correlation. Additionally, the VIF value was less than 10, indicating the absence of multicollinearity.

The study found that both knowledge of SDGs and attitude towards SDGs significantly predict awareness, with  $F(2,197)=61.803$  and  $P=.000$ . Moreover, the  $R^2=.386$  indicates that the model explains 38.6 percent of the variance in awareness. Furthermore, the coefficients were analyzed to determine the influence of each factor on the dependent variable. H1, which evaluated whether knowledge of SDGs significantly affects awareness of SDGs, was supported by the results that depicted a significant positive impact of knowledge of SDGs on awareness ( $B=.580$ ,  $t=8.042$ ,  $P=.000$ ). However, H2, which evaluated whether attitude towards SDGs significantly affects awareness of SDGs, was not supported by the results, which showed that attitude towards SDGs has no significant impact on awareness ( $B=.062$ ,  $t=.863$ ,  $P=.398$ ).

In short, the study showed that both knowledge and attitude towards SDGs significantly influence students' awareness of SDGs, with knowledge of SDGs having a greater impact. The study

observed that educational institutions should focus on imparting knowledge about SDGs to enhance awareness among students.

**Table 6**

**Impact of knowledge and attitude towards SDGs on students' awareness of SDGs**

Hypotheses	Regression weights	B	t	P value	VIF	Results
H1	KS → AS	.580	8.042	.000	1.66	supported
H2	ATS → AS	.062	.863	.398	1.66	not supported
R	.386					
F (2,197)	61.803, P=.000					
Durbin Watson	2.25					

Note: P=0.05, AS-Awareness of SDGs, KS-Knowledge of SDGs, ATS-Attitude towards SDGs

## Findings and Conclusion

The study aimed to assess the level of knowledge, attitude and awareness of SDGs among students of Kannur University in Kerala, with the ultimate goal of achieving sustainability and the SDGs. The study found that a majority of students have studied environmental studies as part of their syllabus and have acquired knowledge about SDGs through various sources such as the internet, social media and newspapers. The students have a basic understanding of SDGs and hold positive attitudes towards their attainment. However, the level of awareness of the 17 SDGs was found to be relatively low, indicating a need for more awareness programs and efforts to increase students' awareness. The multiple regression analysis conducted in the study revealed that both knowledge and attitude towards SDGs significantly influenced students' awareness of SDGs, with knowledge having a positive impact on awareness and attitude having no significant impact. Thus, the study concludes that incorporating environmental protection and sustainability into the syllabus is a crucial step in creating awareness among students and promoting the attainment of SDGs. Educating and creating consciousness among students regarding the importance of environmental protection and sustainability can pave the way for a sustainable future generation.

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