

Level of awareness on the sustainable development goals among Indian youth: Empirical evidence from Northern India

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Abstract: In India, government has made many policies and plans to contribute in the attainment of SDGs but being a developing nation with a large population and vast geographical expanse, the attainment of SDGs is a big task. In the 2022 Global Index of SDGs, India ranked 121 out of 163 countries. The present research's objective was to measure the awareness among universities students. Two stage cluster sampling was used for sample selection. In the first stage, 4 cities from the Northern part of India were selected and in second stage, from each city, selection of subjects was done. 546 subjects were contacted, and 335 participated. Survey was conducted using questionnaires (Odoom, Mensah, Dick-Sagoe, Lee, Opoku & Obeng-Baah, 2024). The scale has questions related to all the SDGs. Results showed that subjects had moderate awareness about SDG5, SDG6, SDG7, SDG9, SDG13 and SDG15 with the respective mean score (Mean 3.32, 3.77, 3.80, 3.27, 3.79, & 3.27) and had low awareness for SDG10, SDG11, SDG16, and SDG17 with the respective mean score (Mean 2.95, 2.86, 2.95, & 2.86). Results showed significant difference in the SDGs awareness among male and female. For SDG2, SDG3, SDG4, SDG9, SDG14, SDG15 and SDG17, the awareness was higher in male (respective mean rank score 182.80, 181.76, 176.29, 181.80, 217.26, 184.95, 194.08) than female (respective mean rank score 152.01, 153.12, 159.04, 153.09, 122.42, 149.68, 139.81). For SDG5, SDG6, SDG7, SDG10, SDG11, SDG12, SDG13, SDG16, the awareness was higher in female (respective mean score 224.19, 224.19, 196.48, 198.99, 211.51, 205.13, 219.52, 205.25) in comparison to male (respective mean score 116.01, 115.01, 141.65, 139.32, 127.74, 133.64, 120.33, 133.53). Results of the present research also imply the role of social structure in SDGs awareness and highlight the need to introduce some programs to promote the discussion on SDGs in every classroom.

Keywords: Indian Youth, Level of awareness, SDG.

1. Introduction

The world is growing at a very fast pace, so fast that sometimes it is even becoming difficult to catch the pace. On one side, humans are trying hard to make this world a better place but, in this race, unintentionally we are ignoring other important issues. As this is not news the climate crisis has become serious. [1] The gap between rich and poor is widening every other day. The United Nations (UN) created the Sustainable Development Goals (SDGs) seem an effective way to deal with the crisis that this world is going through. In order to raise the standard of living for coming generations, sustainable development—the UN's prevailing paradigm—seeks to balance the advancement of social,

environmental, and economic objectives. The SDGs are a set of guiding principles for global development that were unveiled at the 70th Session of the UN General Assembly. The SDGs aim to maintain the welfare of both the natural world and people. They clear the way for society's advancement. Sustainable development has become an important goal for humanity. Higher education students are key players in the achievement of the Sustainable Development Goals (SDGs). However, the extent of their knowledge about these goals and their potential role in achieving them is not yet clear.

Higher education institutions have a very crucial role to play in the attainment of the SDGs by aiding students in becoming global citizens and contributing to sustainable development on a worldwide scale [2]. For the attainment of SDGs, the first and the major objective is to make students as well as faculties, aware of SDGs and spread its awareness at the global level irrespective of region, status, and language. Higher education may play a vital role in the emergence of future leaders with the knowledge and the tools necessary to generate positive change is essential [3]. Universities also offer events to engage with the local community and create public knowledge of the sustainable development agenda. All these steps would help when there is awareness of the same. This research is conducted in the same direction with the objective to work for India's contribution to the attainment of SDGs. There are researches available that have studied the awareness towards specific goals but as per researchers' knowledge, no research mentioned taking the inputs from students for the attainment. This research would help in highlighting the student's perspective on the attainment of SDGs. This research would help in identifying the needs of different cities and educational levels which can be addressed to attain the SDGs.

Furthermore, the study is not just about raising awareness of sustainable development goals, among students but also about engaging in a critical evaluation of their applicability. This evaluation is crucial in our collective efforts to create a sustainable world for future generations, prompting us to think deeply and act thoughtfully.

1.1. Objectives

To explore the awareness and attitude of university/college students towards SDGs.

- To assess the awareness of SDGS in the university students to initiate the discussion on India's contribution to SDG attainment.
- To motivate and encourage the students to actively participate in the attainment of SDGs which would help in marking India's contribution in the attainment of SDGs.
- To compare the level of awareness of SDGs among male and female students. This objective would help in identifying gender differences in terms of contemporary topics.

The outline of this research study has been organized as follows. Section 2 is a review of the literature section focusing on SDG awareness and India's contribution to the attainment of SDGs. In section 3 research method and analysis and results were given. Discussion on the obtained results was done in section 4 which ended with a conclusion. Section 5 has the implication of the study and recommendations for the best practices to increase awareness at every possible level and enhance India's contribution towards SDG attainment. Section 6 includes limitations and avenues for future research opportunities.

1.2. Review of Literature

The idea of sustainable development has gone through numerous stages of change and growth. With time, old goals were modified and new ones were formed. Despite growing, diversified research in the field of sustainable development, the area remains unexplored [4]. It is also observed that the research gap in this field is widening [5], as people have fair awareness but low knowledge of SDGs. The relationships between the sustainable development indicators showed that the SDGs are regarded as less significant in nations with higher indices than in those with lower indices [6]. Also, northern

countries display more characteristics of sustainability that promote economic growth, whereas southern countries display sustainability by focusing on health [7].

The SDG implementation process presents unparalleled prospects for promoting economic empowerment and fair opportunity, assisting nations in advancing sustainable development within their borders, and so benefiting their citizens, yet there are challenges in persistent growth toward the attainment of SDGs. [8]

India, with its status as the world's most populous nation, holds significant sway in advancing SDGs by addressing existing challenges. A paramount obstacle lies in the absence of tailored indicators to measure progress effectively. This barrier can be surmounted through the creation of an Indian Index for SDGs. Also, the COVID-19 failure has demonstrated its impact on achieving the SDGs by 2030 [9].

India, being a developing country, gains the most by focusing on the SDGs for developing economic and social aspects [10]. The SDGs may have a limited transformative political/social influence, according to scientific findings [11]. A study enlightens the need to frame and implement more regulatory mechanisms to have a significant effect on the private sector's to of the SDGs. [12]. In corporations like BPO, increasing technology, building partnerships, and social innovations can contribute to achieving the SDGs [13].

A report suggested broadening the scope of workshops and training programs for teachers and students of education faculty, with an emphasis on raising environmental consciousness to achieve SDGs [14]. Lack of awareness and understanding among students is found regarding their diet and its impact on carbon footprint [15]. The study recommends improving knowledge and awareness of SDGs in educational curricula. Although there is no consensus to prove that business schools can contribute to bringing about sustainable development changes, they can advocate promoting a paradigm shift and encouraging interdisciplinary and collaborative work [16].

Social transformations can be brought about through education, and a study reveals those students of higher education aid in achieving the aims of the SDGs [17]. Through service learning, teacher educators can prepare professionals who are socially conscious and move the world closer to sustainable development [18].

2. Methodology

2.1. Research Strategy

Inductive and interpretative logic has been used to develop the research design and select appropriate tools and techniques for data collection & analysis.

2.2. Main Variables of the Study

Behavioral Variables (Awareness and Attitude for 17 SDGs) Socio-demographic: Gender, educational qualifications, socio-economic status, metro, non-metro city, subject stream.

2.3. Sample

Two-stage cluster sampling was done to select the representative sample from major cities of Northern India. In the first stage, a random selection of clusters was done and 4 cities from the Northern part of India were selected. In the second stage, from each cluster, a random selection of individual subjects was done. A total of 546 subjects were contacted and 335 subjects responded and participated in the research.

2.3.1. Sample Description

Table 1.
Sample description.

	Frequency	Percentage
Sex		
Female	189	51.94%
Male	123	48.05%
Qualification		
Undergraduate program	216	64.47%
Post graduate program	94	28.05%
Ph.D. program	25	7.46%
Stream		
Arts	63	18.81%
Commerce	45	13.43%
Engineering	28	8.36%
Management	32	9.55%
Science	90	26.87%
Social Science/Humanities	59	17.61%
Others	18	5.37%
Obtained percentage in under graduation		
Less than 60%	34	10.15%
60-70%	44	13.13%
71-80	128	38.21%
81-90	106	31.64%
More than 90	23	6.87%
Family income (Monthly)		
Less than 25000K INR	122	36.41%
25000-50000K INR	86	25.67%
50001 to 75000K INR	54	11.64%
75001 to 1 lakh INR	34	16.11%
More than 1lakh INR	39	11.64%

2.4. Tool/ Scale

The survey approach was used to collect quantitative descriptions of students' awareness and input in relation to SDGs. A survey was conducted using questionnaires [19]. This questionnaire was used to study the awareness of SDGs among students and results were generalized to the Ghanaian population. Required changes were made to make it culturally fair. The scale was validated through the expert review of two officials, one from policymaking and the other from academics. The scale's Cronbach alpha was determined using the data that were acquired. An internal consistency score of 0.95 indicated that the internal consistency was high [20].

Means, standard deviation, and the Mann-Whitney U test were used to analyze the data collected on 335 subjects. The means and the standard deviations of the responses were calculated to illustrate the differences from the average responses. Further, the Mann-Whitney U test was conducted to ascertain whether there was any significant gender difference between the average public awareness scores of the SDG.

3. Results

As shown in Result Table 2, the results of the current study show that subjects are highly aware of the SDG1 (Mean 4.49, SD 1.18) which is about poverty. Poverty is one of the issues in underprivileged groups and subjects are aware that it is poverty that is impacting their growth and social participation. Similarly, respondents show awareness (Mean 4.67, SD 1.25) that ending hunger, working for food security, improving nutrition, and promoting sustainable agriculture are focus points of SDG 2. Similarly, SDG 3 (Mean 4.77, SD 1.16) was highly aware of good health and well-being. For SDG 4 (Mean 4.74, SD 1.17) respondents showed high awareness for quality education. They are aware of the importance of quality education for all. Respondents gave moderately positive answers for achieving gender equality and empowering all women and girls (Mean 3.32, SD 2.01). Water scarcity and poor sanitation have become a global problem. Respondents were not highly aware of the sustainable management of water and management of sanitation which is SDG 6 (Mean 3.77, SD 1.54). Though India is working to be an energy-resilient and energy-efficient country it is a long journey ahead. There was not very much awareness towards affordable and reliable energy for all (Mean 3.80, SD 1.67). For SDG 8, respondents answered positively about the promotion of sustained, inclusive, and sustainable economic growth and employment for all (Mean 4.25, SD 1.43). SDG 9 focuses on resilient infrastructure and sustainable industrialization, respondents gave moderate answers and showed they are moderately aware of SDG 9 (Mean 3.27, SD 1.86). Inequality has been a big problem in the underprivileged section and so is within the among the countries. Respondents did not have awareness (Mean 2.95, SD 1.81) of SDG 10 which is for reducing inequality within and among countries.

Table 2.
Descriptive statistics.

SDG		N	Mean	SD
SDG 1	No Poverty	335	4.49	1.18
SDG 2	Zero hunger	335	4.67	1.25
SDG 3	Good health and well-being	335	4.77	1.16
SDG 4	Quality Education	335	4.74	1.17
SDG 5	Gender equality	335	3.32	2.01
SDG 6	Clean water and sanitation	335	3.77	1.54
SDG 7	Affordable and clean energy	335	3.80	1.67
SDG 8	Decent work and economic growth	335	4.25	1.43
SDG 9	Industry, innovation and infrastructure	335	3.27	1.86
SDG 10	Reduced inequalities	335	2.95	1.81
SDG 11	Sustainable cities and economies	335	2.86	1.71
SDG 12	Responsible consumption and production	335	4.38	1.32
SDG 13	Climate action	335	3.79	1.62
SDG 14	Life below water	335	4.40	1.35
SDG 15	Life on land	335	3.27	1.86
SDG 16	Peace, justice, and strong institutions	335	2.95	1.81
SDG 17	Partnership for the goals	335	2.86	1.71

For SDG 11 which is sustainable cities and economies, respondents had low awareness (Mean 2.86, SD 1.71) but respondents showed high awareness towards responsible consumption and production (Mean 4.38, SD 1.32). Participants considered climate change as a current issue and showed a lack of awareness towards climate action (Mean 3.79, SD 1.62). The respondents showed a high level of awareness among respondents was for life below water (Mean 4.40, SD 1.35). They were moderately aware of life on land (Mean 3.27, SD 1.86). Similarly, they were poorly aware of peace, justice, and strong institutions (Mean 2.95, SD 1.81). To achieve the goals, a partnership is required for which they did not show high awareness (Mean 2.86, SD 1.71).

For inferential analysis, the Mann-Whitney U-test was conducted to determine the difference between the male and female's awareness of all 17 SDGs individually Table 3. The obtained Z values were not significant at 0.05. It shows that there is no significant difference between the awareness for SDG1 and SDG8 among males and females with respective Z values that are 1.3 and 2.14. For all other SDGs obtained Z value was significant at the .01 level with its respective Z value. It was found that for SDG2 and SDG3 awareness level was higher in female students in comparison to male students.

Table 3.
SDGs awareness in male and female students.

SDG	Sex	N	Mean rank	Sum of ranks	Z	Significance level (2 tailed)
SDG 1	Male	123	174.30	30329.00	1.3	0.191
	Female	189	161.19	25951.00		
	Total	335				
SDG 2	Male	123	182.80	31807.00	2.97	0.003
	Female	181	152.01	24473.00		
	Total	335				
SDG 3	Male	123	181.76	31627.00	2.76	0.006
	Female	181	153.12	24653.00		
	Total	335				
SDG 4	Male	123	176.29	30674.00	1.66	0.00
	Female	181	159.04	25606.00		
	Total	335				
SDG 5	Male	123	116.01	20185.00	10.07	0.00
	Female	181	224.19	36095.00		
	Total	335				
SDG 6	Male	123	115.01	20385.00	10.32	0.00
	Female	181	224.19	36065.00		
	Total	335				
SDG 7	Male	123	141.65	24646.50	5.2	0.00
	Female	181	196.48	31633.50		
	Total	335				
SDG 8	Male	123	157.21	27354.00	2.14	0.32
	Female	181	179.66	28926.00		
	Total	335				
SDG 9	Male	123	181.80	31633.00	2.72	0.06

SDG	Sex	N	Mean rank	Sum of ranks	Z	Significance level (2 tailed)
	Female	181	153.09	24647.00		
	Total	335				
SDG 10	Male	123	139.32	24242.00	5.84	0.00
	Female	181	198.99	32038.00		
	Total	335				
SDG 11	Male	123	127.74	22227.50	7.94	0.00
	Female	181	211.51	34052.50		
	Total	335				
SDG 12	Male	123	133.64	23254.00	6.86	0.00
	Female	181	205.13	33026.00		
	Total	335				
SDG 13	Male	123	120.33	20938.00	9.79	0.00
	Female	181	219.52	35342.00		
	Total	335				
SDG 14	Male	123	217.26	34979.50	9.12	0.00
	Female	181	122.42	21300.50		
	Total	335				
SDG 15	Male	123	184.95	32181.00	3.35	0.001
	Female	181	149.68	24099.00		
	Total	335				
SDG 16	Male	123	133.53	23234.50	6.8	0.00
	Female	181	205.25	33045.50		
	Total	335				
SDG 17	Male	123	194.08	33770.00	5.19	0.00
	Female	181	139.81	22510.00		
	Total	335				

As shown in Result Table 3, For SDG 2 Zero Hunger, SDG 3 Good Health and Well-being, SDG 4 Quality Education, SDG 9 Industry, Innovation and Infrastructure, SDG 14 Life Under Water, SDG 15 Life on Land and SDG 17 Partnership for the Goals the awareness was higher in male students with their respective mean rank score 182.80, 181.76, 176.29, 181.80, 217.26, 184.95, and 194.08 than female

students with respective mean rank score 152.01, 153.12, 159.04, 153.09, 122.42, 149.68, and 139.81. For SDG 5 Gender Equality, SDG 6 Clean Water and Sanitation, SDG 7 Affordable and Clean Energy, SDG 10 Reduced Inequalities, SDG 11 Sustainable Cities and Communities, SDG 12 Responsible Consumption and Production, SDG 13 Climate Action, SDG 16 Peace and Justice Strong Institutions, the awareness was higher in female students with their respective mean score 224.19, 224.19, 196.48, 198.99, 211.51, 205.13, 219.52, and 205.25 in comparison to male students with their respective mean score 116.01, 115.01, 141.65, 139.32, 127.74, 133.64, 120.33, and 133.53.

3.1. Discussion

Both men and women can be equally driven about and engaged in initiatives to achieve the targets of SDGs. However, in the present study in some SDGs male were found to be more aware than women regarding the global issue of hunger and food insecurity (SDG 2), good health and well-being (SDG 3), quality education (SDG 4) industry, innovation and infrastructure (SDG 9), life on land (SDG 14) and life below water (SDG 15) and partnership (SDG 17). There are a few reasons that can contribute to these differences. For instance, according to their gender roles.

3.2. Gender Roles and Awareness in Society

Traditionally, women have typically been connected with caregiving tasks within families and communities [21] while men are considered as bread earner of the family and family depends on them for the needs. This can translate into greater awareness of and concern for issues connected to health, nutrition, and well-being, including measures to prevent hunger. In many regions of the world, women are disproportionately affected by poverty and food insecurity and it is considered a men's responsibility to provide them resources through which women can manage the families. As a result, individuals may be more willing to push for solutions to solve these concerns. Men have more exposure of the outside world whether it is industry, innovation or life on land and water men are more awareness of it.

3.3. Male Awareness

Men in the present study were found to be more aware of SDGs 8, 9, 15, and 17 which are decent work and economic growth (SDG 8), revitalizing global partnerships for sustainable development (SDG 9), and resilient infrastructure, sustainable industrialization, and fostering innovation (SDG 17), which could be attributed to their historically dominated involvement in industries such as engineering, construction, and technology, which are closely related to infrastructure development, industrialization, and innovation.

3.4. Encouragement in STEM Fields

Men are often encouraged to study STEM (Science, Technology, Engineering, and Mathematics) areas, which are critical for building development, industry creativity, and technological progress. This educational and professional background provides men with greater exposure to and understanding of issues related to economic growth, industrialization, and technological advancement (29).

3.5. Managerial Positions and Policy Influence

Finally, males have a disproportionate number of managerial positions in government, companies, and international organizations that often debate and make choices regarding infrastructure development, industrial policy, and innovation initiatives. Consequently, they may be more exposed to talks and efforts linked to these areas.

3.6. Gender Equality

Females may have greater awareness of gender equality (SDG 5), than men owing to a range of social, cultural, and individual variables. For instance, Women may directly face gender discrimination and inequality in their everyday lives, which might make them more alert to concerns of gender

equality. From uneven compensation to restricted prospects for growth, these experiences may fuel awareness and advocacy initiatives. The other causes of this difference in their heightened awareness may be attributable to the Women, particularly those from underprivileged groups. They frequently encounter overlapping types of discrimination based on criteria such as race, ethnicity, class, and sexuality. This integrative viewpoint may heighten awareness of the intricacies of gender inequality. In popular culture and the media, women tend to be portrayed as promoters of social justice and gender equality. Women's consciousness may be shaped by exposure to these images, and it may encourage them to take action and advocate proactively.

3.7. Clean Water and Sanitation

The need for clean water and sanitation (SDG 6) may be more apparent to women because getting water and keeping up domestic cleanliness are mostly the responsibilities of women and girls in many civilizations. They therefore often encounter directly the difficulties and health hazards related to poor access to hygienic facilities and clean water. This personal encounter may increase support and understanding of better infrastructure for water and sanitation. Because these jobs usually involve women more, they may be more conscious of them. In this sense, women's experiences, roles, and involvement in the community often lead to their increased consciousness and support for guaranteeing that everyone has access to these necessary resources.

3.8. Economic Inequality

Globally, Women often earn less than males for doing equivalent jobs, which might make them more aware of concerns linked to fair salaries, workplace equality, and possibilities for promotion. Similarly, Women, particularly those from marginalized sections, frequently endure overlapping kinds of discrimination based on factors such as gender, color, ethnicity, class, and disability. These overlapping identities might result in specific economic issues and hurdles to obtaining good jobs and possibilities for promotion. Additionally, Women generally endure a disproportionate load of unpaid caregiving obligations, such as childcare and eldercare. These duties may impede their capacity to engage fully in the labor field and obtain appropriate employment prospects. As a consequence, women may be more aware of the need for inclusive economic policies that accommodate the various needs and experiences of all persons. Women's experiences of economic inequality may inspire them to advocate for policies and practices that promote equal pay, gender justice, and inclusive economic growth.

3.9. Urban and Environmental Awareness

Women also showed greater awareness of and advocacy for creating inclusive, safe, resilient, and sustainable cities. This is likely due to the fact that women frequently experience particular safety concerns in both urban and rural areas, such as harassment, violence, and a lack of facilities for public safety and security. With fast urbanization happening globally, women are becoming more aware of the social, economic, and environmental ramifications of growth in cities. They may advocate for inclusive and sustainable urban planning approaches that address concerns such as housing affordability, transit accessibility, and environmental sustainability to build livable communities for current and future generations.

Women in this study expressed greater awareness about environmental issues and were more likely to engage in environmentally friendly behaviors than men. This could be due to a variety of factors, including differences in socialization, values, and life experiences. Additionally, women may be more likely to prioritize issues such as climate change (SDG 13), because they often bear the brunt of its impacts, especially in developing countries where they may be responsible for tasks such as gathering water and firewood, which can become more challenging due to environmental changes.

In many rural and indigenous societies, women are responsible for chores such as gathering water, fuel wood, and medicinal herbs, as well as farming and food production. Their everyday interactions with the land and its resources give people direct knowledge of ecosystem health and the repercussions

of deterioration. Women's understanding of environmental problems is frequently connected with other social and economic concerns, such as food security, poverty reduction, and gender equality. Recognizing the interconnectivity of these concerns may drive women to fight for comprehensive approaches to sustainable development that prioritize both people and the earth.

3.10. Comparative Analysis with Previous Studies

Our findings align with previous research [22] which also observed gender differences in awareness and engagement with various SDGs. It was found that women were more likely to prioritize health, nutrition, and environmental sustainability, while men focused more on economic and industrial development.

3.11. Novelty and Implications of the Study

The uniqueness of the study lies in the detailed analysis of gender-specific awareness across multiple SDGs and the identification of underlying factors contributing to these differences. Unlike previous studies that focused on a limited number of SDGs or specific populations, our research provides a comprehensive examination across a diverse sample, offering deeper insights into the socio-cultural and economic dynamics influencing SDG awareness.

Our findings have important implications for policy and practice. To effectively promote SDG awareness and engagement, tailored strategies that consider gender-specific perspectives and experiences are crucial. For instance, enhancing women's participation in STEM fields and leadership roles can broaden their influence in economic and industrial domains. Similarly, addressing the caregiving responsibilities and economic challenges faced by women can empower them to advocate more effectively for health, nutrition, and environmental sustainability.

Both men and women can be equally driven about and engaged in initiatives to achieve the targets of SDGs. However, in the present study females were found to be more aware than men regarding the global issue of hunger and food insecurity (SDG 2), good health and well-being (SDG 3) gender equality (SDG 5), and the need of clean water and sanitation (SDG 6) and other SDGs. There are a few reasons that can contribute to these differences. For instance, according to their gender roles. Traditionally, women have typically been connected with caregiving tasks within families and communities. This can translate into greater awareness of and concern for issues connected to health, nutrition, and well-being, including measures to prevent hunger. Women's health issues, especially maternity and child health are directly connected to nutrition and access to appropriate food. Consequently, women may be more alert to the significance of alleviating hunger and fostering good health. In many regions of the world, women are disproportionately affected by poverty and food insecurity. As a result, individuals may be more willing to push for solutions to solve these concerns.

Females may have greater awareness of gender equality (SDG 5), than men owing to a range of social, cultural, and individual variables. For instance, Women may directly face gender discrimination and inequality in their everyday lives, which might make them more alert to concerns of gender equality. From uneven compensation to restricted prospects for growth, these experiences may fuel awareness and advocacy initiatives. The other causes of this difference in their heightened awareness may be attributable to the Women, particularly those from underprivileged groups. They frequently encounter overlapping types of discrimination based on criteria such as race, ethnicity, class, and sexuality. This integrative viewpoint may heighten awareness of the intricacies of gender inequality. In popular culture and the media, women tend to be portrayed as promoters of social justice and gender equality. Women's consciousness may be shaped by exposure to these images, and it may encourage them to take action and advocate proactively.

The need for clean water and sanitation (SDG 6) may be more apparent to women because getting water and keeping up domestic cleanliness are mostly the responsibilities of women and girls in many civilizations. They therefore often encounter directly the difficulties and health hazards related to poor access to hygienic facilities and clean water. This personal encounter may increase support and

understanding of better infrastructure for water and sanitation. Because these jobs usually involve women more, they may be more conscious of them. In this sense, women's experiences, roles, and involvement in the community often lead to their increased consciousness and support for guaranteeing that everyone has access to these necessary resources.

Globally, Women often earn less than males for doing equivalent jobs, which might make them more aware of concerns linked to fair salaries, workplace equality, and possibilities for promotion. Similarly, Women, particularly those from marginalized sections, frequently endure overlapping kinds of discrimination based on factors such as gender, color, ethnicity, class, and disability. These overlapping identities might result in specific economic issues and hurdles to obtaining good jobs and possibilities for promotion. Additionally, Women generally endure a disproportionate load of unpaid caregiving obligations, such as childcare and eldercare. These duties may impede their capacity to engage fully in the labor field and obtain appropriate employment prospects. As a consequence, women may be more aware of the need for inclusive economic policies that accommodate the various needs and experiences of all persons. Women's experiences of economic inequality may inspire them to advocate for policies and practices that promote equal pay, gender justice, and inclusive economic growth.

Women also showed greater awareness of and advocacy for creating inclusive, safe, resilient, and sustainable cities. This is likely due to the fact that women frequently experience particular safety concerns in both urban and rural areas, such as harassment, violence, and a lack of facilities for public safety and security. With fast urbanization happening globally, women are becoming more aware of the social, economic, and environmental ramifications of growth in cities. They may advocate for inclusive and sustainable urban planning approaches that address concerns such as housing affordability, transit accessibility, and environmental sustainability to build livable communities for current and future generations.

Women in this study expressed greater awareness about environmental issues and were more likely to engage in environmentally friendly behaviors than men. This could be due to a variety of factors, including differences in socialization, values, and life experiences. Additionally, women may be more likely to prioritize issues such as climate change (SDG 13), because they often bear the brunt of its impacts, especially in developing countries where they may be responsible for tasks such as gathering water and firewood, which can become more challenging due to environmental changes.

In many rural and indigenous societies, women are responsible for chores such as gathering water, fuel wood, and medicinal herbs, as well as farming and food production. Their everyday interactions with the land and its resources give people direct knowledge of ecosystem health and the repercussions of deterioration. Women's understanding of environmental problems is frequently connected with other social and economic concerns, such as food security, poverty reduction, and gender equality. Recognizing the interconnectivity of these concerns may drive women to fight for comprehensive approaches to sustainable development that prioritize both people and the earth.

Men in the present study were found to be more aware of SDGs 8, 9, 15, and 17 which are decent work and economic growth (SDG 8), revitalizing global partnerships for sustainable development (SDG 9), and resilient infrastructure, sustainable industrialization, and fostering innovation (SDG 17), which could be attributed to their historically dominated involvement in industries such as engineering, construction, and technology, which are closely related to infrastructure development, industrialization, and innovation. Men are often encouraged to study STEM (Science, Technology, Engineering, and Mathematics) areas, which are critical for building development, industry creativity, and technological progress. Finally, males have a disproportionate number of managerial positions in government, companies, and international organizations that often debate and make choices regarding infrastructure development, industrial policy, and innovation initiatives. Consequently, they may be more exposed to talks and efforts linked to these areas.

4. Conclusions and Implication

It can be concluded based on the present research results that in India, there is a need to bridge the gender gap in terms of participation and contribution in SDG achievement. For some SDGs, male students are more aware in comparison to female students while there are many areas where work needs to be done on the awareness among males and give them the responsibility to participate in the SDGs achievement and in the overall growth of the country.

Research on Sustainable Development Goals (SDGs) awareness among college students has several implications in different areas:

Research has indicated a moderate level of awareness for many SDGs and a low level of awareness for SDGs. These results can encourage policymakers to implement educational programs and awareness campaigns at school and college levels.

Students are the future of any country and can play a crucial role in India's contribution to SDG attainment. Insights from research can inform educational curricula at all levels to integrate topics related to sustainable development and the SDGs. This can help raise awareness among students and future leaders, ensuring they understand the importance of sustainable practices and are equipped to contribute towards achieving the goals.

Research findings also give insight to teachers to discuss the topics related to sustainable development and motivate the students to give more and more ideas to create a sustainable future. They can use the data to tailor their outreach efforts and engage with communities, businesses, and governments to drive progress toward the goals.

Research highlighting disparities in SDG awareness among males and females can underscore the need for global cooperation and support for capacity-building initiatives in less developed areas. It can also facilitate bridging the gap and ensure the equal participation and contribution of everybody.

The present research also highlights the need for continuous research on SDG awareness is important for attaining a goal. Such research serves the monitor and evaluate progress toward the goals. By regularly assessing awareness levels and understanding public perceptions, policymakers and stakeholders can adjust strategies and interventions to ensure they are effectively promoting sustainable development.

Understanding the factors that influence awareness and attitudes towards the SDGs can inform behavior change interventions. Research can identify key motivators and barriers to adopting sustainable practices, enabling the design of targeted campaigns to encourage positive behavior change at individual and community levels.

Overall, research on SDG awareness plays a crucial role in informing policies, strategies, and actions aimed at advancing sustainable development and achieving the goals by 2030.

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