

## **Knowledge of the UN Sustainable Development Goals Amongst India's National Service Scheme Volunteers**

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### **Abstract**

Background of the study

The National Service Scheme (NSS) is organized by the Government of India for young college and university students to provide hands-on experience in delivering community service on a voluntary basis. The NSS is one of the central sector schemes for achieving the United Nations Sustainable Development Goals (SDGs). The current study aimed to evaluate the knowledge of NSS volunteers regarding the SDGs and their perceptions in contributing to achieve the SDGs.

### **Method**

The study used a cross-sectional survey design to collect data from the NSS volunteers aged 18 to 25 years. College and University students from the Navi Mumbai area were sampled for the study. 395 NSS volunteers who had participated in the annual camp and had completed a minimum of 120 hours of volunteering were included in the study.

### **Results & Discussion**

On average NSS volunteers reported involvement in 22.8 (standard deviation [SD] 11.2) of 56 NSS activities and they scored 9.6 (SD 6.3) correct on 23 questions testing knowledge of the UN SDGs. SDG recall was significantly improved in association with participation in NSS Environment and NSS Celebration activities.

### **Conclusion**

Volunteers were involved in multiple NSS activities, yet accurately recalled only a minority of items relating to knowledge of the SDGs. The findings suggest there is considerable scope to increase NSS Volunteer involvement in achieving the SDGs.

## Introduction

India's demographic landscape is undergoing a youth-driven transformation, as highlighted by 19.1% of individuals aged 15-24 (GOI, 2017) and 27% of the total population aged 15-29 (GOI, 2014). The realization of this demographic dividend hinges on effectively engaging with the youth. Their active participation in civic engagement plays a pivotal role in propelling India's overall development.

The inception of the National Service Scheme (NSS) in the universities in 1969, later extended to +2 Board level in 1985, aimed to channel the energy of youth for nation-building. Over the span of more than five decades, NSS has facilitated the integration of students into communities while nurturing their personal growth. Functioning as a central scheme, NSS aligns with UN SDGs 4.6 (literacy) and 4.7 (sustainable education) to contribute toward developmental milestones.

In light of the NSS's potential role in contributing to the SDGs, it becomes imperative to gauge NSS volunteers' knowledge of these global goals. The current study assesses volunteers' knowledge of SDGs.

## Statement of the problem

As the Government of India has explicitly referenced the NSS as a vehicle for achieving the UN SDG goals, this study sought to evaluate the extent of NSS volunteers' knowledge of the SDGs.

**Literature review** Although the Government of India has explicitly referenced the NSS as a vehicle for achieving the UN SDG goals, there have been few studies evaluating this connection.

A review of the literature demonstrates the NSS has been evaluated to improve youth character, but there have been no prior studies examining impacts on the SDGs. A brief summary follows.

**NSS's Role in Facilitating Citizenship Practice was indicated in Sekhar et al., (2022).** Sekhar et al.'s study highlighted NSS's vital role in promoting citizenship practice among student youth, aligning higher education with community concerns, and positively contributing to youth development. NSS facilitated rural development and community building, offering social engagement opportunities for positive youth development. **The impact of NSS programs on moral values was evaluated by Sonber, Patel, and Makhija, (2022) who found the NSS was associated with improved** moral values .

**Purohit and Patel, (2022a) found** NSS volunteers held higher motivation for achievement than non-NSS students.

**Saikia and Rajalakshmi, (2022) in a longitudinal study found the** NSS improved decision-making skills by exposing students to real-life challenges and encouraging problem-solving.

**Saha, (2019) found** NSS provided a means of organized extension work and fostering social responsibility among students. The above literature review notes the importance of the NSS in youth engagement and community development. However, no existing study has explored the extent of SDG knowledge among NSS volunteers. The current research intends to fill this void by examining NSS volunteers' understanding of the SDGs.

## Methodology:

### a). Area of the Research Study

This research focused on assessing awareness of the SDGs among NSS volunteers. The study targeted undergraduate students from Arts, Science, Commerce, Management, and Engineering colleges in Navi Mumbai. Both government-funded (n=12) and self-financed (n=9) NSS units in Navi Mumbai were included.

**b. Research Design:**

The study used a cross-sectional survey design.

**c. Sampling Design:**

i. Sampling Unit: Eligible survey participants were undergraduate students aged 18 and above, who had completed at least 120 hours of NSS volunteering.

ii. Sampling Method: Purposive sampling was used. NSS volunteers meeting the criteria were surveyed.

iii. Sampling Size: With a confidence interval of 95%, standard deviation of 0.5, and margin of error of  $\pm 5\%$ , the minimum sample size was calculated at 385.

**d. Methods of Data Collection**

**Quantitative Data Collection:** A survey was constructed to be administered online and offline. The survey covered various aspects including NSS volunteering activities, and knowledge of the SDGs.

**Measures**

Except where referenced, items were specifically designed by the author and supervisor for the current study.

The online survey included 56 NSS activities. Respondents indicated their involvement by ticking boxes. A series of 23 items were included to assess knowledge of the SDGs. Respondents were presented with the 17 SDGs and invited to tick boxes if they recognized them. Three correct and three incorrect statements relating to the timing and number of SDGs were also included and respondents were scored for correct answers, score range 0 to 23. The online survey also recorded respondent age, gender, family SES and a series of covariates (e.g., religious involvement, trust, moral belief, civic engagement).

NSS activities were presented to respondents, divided into major streams such as Education, Health, Family Welfare, and Nutrition, Environment Conservation, Social Service Programs, Programs for Improving the Status of Women, Production-Oriented Programs, Disaster Relief and Rehabilitation, and NSS Celebrations.

NSS Education: Comprised 7 activities introduced with: "What NSS activities have you been involved in the field of Education?" Response options were: Adult Literacy, Mass literacy, Adult numeracy, Preschool education program, Continuing education of school drop-outs program, Programs on eradication of social evils, and life skills training. Each of the 7 items were coded: Box ticked (1) not ticked (0).

NSS Health: Comprised 13 activities introduced with: "What NSS activities have you been involved in the field of Health, Family Welfare, and Nutrition?" Response options were: Immunization/ Mission Indradhanush; Blood donation Camps and Thalassemia detection; Children's Day- Health camp; Pulse polio drive; Red Ribbon club; HIV/AIDS awareness campaign; Adolescence and Reproductive Health; Health education; Nutrition and Awareness of Various Diseases; Malnutrition survey; Health and hygiene; Consumer Guidance; and Education and Recreation. Each item was coded: Box ticked (1) not ticked (0).

NSS Environment Conservation: Comprised 6- activities introduced with What NSS activities have you been involved in the field of Environment Conservation? Response options were: Tree Plantation and their preservation/ upkeep; Cleanliness campaign, cleaning and maintenance of streets, and drains; Youth for Cleanliness/Total Sanitation program; Environmental preservation, Environment Enrichment, and Conservation campaign; Water Literacy, Rain Water Harvesting; and Nirmal Gram Swachata Abhiyan. Each item was coded: Box ticked (1) not ticked (0).

NSS Program for Improving Status of Women: Comprised 5- activities introduced with What NSS activities have you been involved in Program for improving the Status of Women? Response options were: Awareness generation regarding women's rights; Imparting skill

training to women; Gender Justice and Women Empowerment; Legal Aid for Women; and Girl Child Education. Each item was coded: Box ticked (1) not ticked (0).

NSS Agricultural: Comprised 2 - activities introduced with What NSS activities have you been involved in Production -oriented Programs? Response options were: Educating people about improved agricultural practices, Guidance in animal resource development. Each item was coded: Box ticked (1) not ticked (0).

NSS Disaster Relief and Rehabilitation: Comprised 03 - activities introduced with What NSS activities have you been involved in Disaster Relief and Rehabilitation? Response options were: Working with local authorities in rescue and relief operations in natural calamities like drought, floods, earthquake, cyclone, tsunami etc.; Disaster Management program; and Youth for Disaster management. Each item was coded: Box ticked (1) not ticked (0).

NSS Celebrations: Comprised of 11- activities introduced with Have you participated in the following celebrations? Response options were: Gandhi Jayanti Celebration, Republic Day Celebration, Independence Day Celebration, NSS Day Celebration, World Aid Day Celebration, Teachers Day Celebration, Children's Day Celebration, International Non-Violence Day Celebration, International Youth Day Celebration, Mental Health Day Celebration, and Women's Day Celebration Each item was coded: Box ticked (1) not ticked (0).

NSS Activities: Comprised of 09- activities introduced with Have you participated in the following NSS Activities? Response options were: Republic Day Parade Camp, Leadership Training Camp, Adventure Activities Camp, Self-defense Training Camp, National Integration Activities, Communal Harmony, Non-Discrimination Activities, National Youth Festival, and Youth Exchange Program. Each item was coded: Box ticked (1) not ticked (0).

NSS Total: Comprised the sum of all 56 NSS activities including: NSS Education (7 activities); NSS Health (13 activities); NSS Environment (6 activities); NSS Women (5 activities); NSS Agricultural (2 activities); NSS Disasters (3 activities); NSS Celebrations (11 activities); NSS Activities (9 activities). Total scale range 1 to 56.

Low Moral belief: Comprised 3-items (adapted from Hutchinson et al, 2016): "I think it is okay to take something without asking if you can get away with it". "It is alright to beat up people if they start a fight". "I think sometimes it's okay to cheat on exams". Response options Strongly Agree (4), Somewhat Agree (3), Somewhat Disagree (2), and Strongly Disagree (1). (Alpha = 0.60).

SDG Recall: Comprised a series of 23 items testing accurate knowledge of the SDGs. Firstly, 17 items were presented representing the 17 SDGs. Respondents were scored for correctly identifying each of them: 1). "No Poverty", 2). "Zero Hunger", 3). "Good health and well-being", 4). "Quality Education", 5). "Gender Equality", 6). "Clean water and sanitation", 7). "Affordable and clean energy", 8). "Decent work and economic growth", 9). "Industry, innovation, and infrastructure", 10). "Reduced inequalities", 11). "Sustainable cities and communities", 12). "Responsible consumption and production", 13). "Climate action", 14). "Life below water", 15). "Life on land", 16). "Peace, Justice, and strong institutions", and 17). "Partnerships for the goals". Response option: Box ticked (1) not ticked (0), range 0-17.

Next, 3 items tested respondents' understanding of the dates and the total number of Sustainable Development Goals (SDGs): "The Sustainable Development Goals were adopted in 2015", "There are 17 Sustainable Development Goals", and "The Sustainable Development Goals set objectives for 2030". Response options: Strongly agree, Somewhat agree, Somewhat disagree, and Strongly disagree were averaged and recoded to range 0-3, with 3 reflecting strong agreement with all three items.

Finally, respondents were presented with 3 incorrect statements relating to the SDGs: "The Sustainable Development Goals were adopted in 2020", "There are 5 Sustainable Development Goals", and "The Sustainable Development Goals set objectives for 2040". Response options Strongly Agree, Somewhat Agree, Somewhat Disagree, and Strongly

Disagree were averaged and recoded to range 0-3, with 3 reflecting strong disagreement with all three items. Scores were summed across the 23 items resulting in a scale with scores ranging from 0 to 23.

### Data analysis

Count scores were calculated to assess participation in the 56 NSS activities and correct scores on the 23 SDG knowledge questions. Correlations and multivariate regression evaluated associations between involvement in NSS activities and accurate knowledge of the SDGs.

### Results

#### Demographic information:

A majority of the participants identified as female (57.7%).

**Table 1** NSS Total scores

Variable	Obs	Mean	Std. dev.	Min	Max
SDG Recall	395	9.61	6.32	0	23
NSS Total	395	22.78	11.19	1	56
NSS Education	395	2.45	1.77	0	7
NSS Health	395	5.53	3.33	0	13
NSS Environment	395	3.22	1.63	0	6
NSS Women	395	1.71	1.37	0	5
NSS Agriculture	395	0.71	0.64	0	2
NSS Disaster	395	1.24	0.94	0	3
NSS Celebration	395	6.01	3.38	0	11
NSS Taught SDGs	343	3.18	0.58	1.2	4
Moral	333	2.88	0.78	1	4

Table 1 reveals the average score for SDG Recall was 9.61, hence less than half of the 23 item responses reflected accurate recall of the SDGs. The NSS Total mean score showed respondents had participated on average in 22.78 of the 56 activities (standard deviation (SD) = 11.19).

**Table 2** Regression Table for SDG Recall (N = 318)

Variables	Coefficient	t	P> t
NSS Education	.03	0.13	0.900
NSS Health	.10	0.75	0.453
NSS Environment	.69	2.73	<b>0.007</b>
NSS Women	.39	1.41	0.161
NSS Agriculture	.33	0.62	0.534
NSS Disaster	-.10	-0.26	0.792
NSS Celebrations	.39	3.06	<b>0.002</b>
NSS Taught SDGs	-.16	-0.27	0.790
moral	-.77	-1.99	<b>0.048</b>

Note: Findings adjusted for: female gender, age, family SES, religion, perceptions of internationalism, perceptions of science, trust, civic engagement, substance use, psychological distress, covid impacts.

The findings in Table 2 indicated two NSS activity areas were multivariate predictors of SDG recall: **NSS Celebrations** (regression coefficient = 0.39,  $p = 0.002$ ) and **NSS Environment** (coefficient = 0.69,  $p = 0.007$ )

Moral scores were also significant negative predictors (coefficient = -0.77,  $p = 0.048$ ), suggesting that disagreement with moral beliefs was associated with lower SDG Recall. Overall, the findings of the regression analysis suggest that higher participation in NSS Celebrations and NSS Environment activities and lower disagreement with the Moral scale predicted higher SDG Recall. Other factors measured in this study were not significant multivariate predictors, including Direct teaching of the SDGs in the NSS.

### **Discussion**

Respondents averaged an accurate score for SDG Recall of 9.61 (standard deviation 6.32) of the 23 items. The findings accord with prior international studies that show low youth knowledge of the SDGs (Novieastari et al, 2022; Zamora-Polo et al, 2019) and suggest considerable scope to improve the NSS volunteer understanding of the SDGs.

In terms of NSS engagement, participants reported an average NSS Total score of 22.78 (standard deviation 11.19) for the 56 NSS activities. These findings provide one of few data sources quantifying NSS activities (Saha, 2019) and suggest the sample had high average involvement in the NSS activities, with considerable variability.

The regression analysis highlighted significant predictors of SDG Recall, including: NSS Celebrations (Coefficient = 0.39,  $p = 0.002$ ). and NSS Environment (Coefficient = 0.69,  $p = 0.007$ ). These findings are the first to suggest the specific NSS activities that were associated with improving SDG Recall.

In essence, the analysis emphasized the potential of specific NSS activities like celebrations and environmental initiatives to heighten participants' SDG recall. This underscores the importance of customizing NSS programs to include elements that foster volunteers' awareness and comprehension of sustainable development goals.

The analysis of the data revealed that NSS volunteers demonstrated a noteworthy ability to recall only a minority of the items pertaining to the knowledge of the SDGs. However, a notable positive trend emerged when examining the relationship between the level of involvement in NSS activities, particularly in events such as NSS Celebration and NSS Environment Workshops, which increased volunteers' capacity for recalling SDG-related content. Volunteers who exhibited a higher degree of participation in these NSS activities demonstrated a noticeable improvement in their ability to recall SDG-related information.

The limitations of the current study are firstly, that the design was cross-sectional. It is not possible with this design to confidently establish whether the higher SDG recall was an effect of NSS participation. For example, it remains possible that NSS volunteers with higher interest in the SDGs may have selected to be involved in NSS Environment activities. Secondly, the study findings may not generalize to NSS volunteers outside the Navi Mumbai context. Finally, it is possible that the measurement of SDG recall may not represent SDG involvement. Future research should seek to further investigate the novel associations reported in the current study. These findings underscore the potential for expanding and enhancing NSS volunteer engagement in the pursuit of achieving the SDGs. While the initial recall rates of SDG-related content were modest, the data suggest that by actively involving volunteers in key NSS events and workshops, there is a promising opportunity to elevate their familiarity with and understanding of the SDGs. This could lead to more informed and proactive participation by NSS volunteers in endeavors aimed at advancing the SDGs.

### **Implications and Future Directions**

The findings from this analysis are one of few to evaluate the association between the NSS activities and knowledge of the SDGs. Future research could delve deeper into understanding the mechanisms through which specific NSS activities influence participants' awareness of SDGs and explore strategies to optimize NSS initiatives for even more substantial contributions to sustainable development goals.

### **Conclusion**

Volunteers were involved in multiple NSS activities, yet accurately recalled only a minority of items relating to knowledge of the SDGs. The low levels of knowledge of the UN SDGs among the NSS volunteers calls for the urgent need to improve SDG training to fulfill the government of India aspirations to achieve SDG goals 4.6 and 4.7 through the NSS. The findings suggest there is considerable scope to increase NSS Volunteer involvement in achieving the SDGs.

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