



**ROLE OF ARTS AND SCIENCE COLLEGES IN ACHIEVING SUSTAINABILITY  
WITH SPECIAL REFERENCE TO DINDIGUL DISTRICT**

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**ABSTRACT**

The term ‘Sustainability’ is used by everyone. Sustainability is all about people, culture, environment, cities and everything. Sustainability is considered very important as it ensures that we will continue to have all the natural resources such as water, minerals, materials and resources to protect our environment and society. Sustainability improves the quality of life of the human beings by supporting the eco-systems. Sustainable development signifies the development which would meet the needs of the present generations without impacting the future generations.. Sustainability is in the hands of everybody, the government, institutions, and individuals. Higher Educational Institutions especially Arts and Science Colleges have their own key role in contributing to the achievement of sustainability as they are shaping the future pillars of the nation. A survey is conducted from 27 Arts and Science Colleges located in Dindigul District and identified to what extent they are aware of the famous 17 Sustainable Development Goals. The analysis shows that they are much aware of the SDGs in the order of SDG4, SDG1, SDG5, SDG3, SDG6 and SDG10. Towards the achievement of these goals, various activities have been undertaken by them such as, providing educational scholarship, free education, providing employment opportunities, practical exposure in the subject which is taught and so on. It is concluded that the activities undertaken by them is still essential to have actions at a higher level like encouraging the students in conducting research programmes in the area of sustainable development.

**Keywords:** Sustainable Development, Arts and Science Colleges, Awareness of SDGs, Achieving SDGs.

**1.1 Introduction**

Sustainable development refers to the development which meets the requirements of present generation without disturbing the requirement of future generation. Now-a-days the concept of sustainable development has become the focus of worldwide countries, governments, organizations and individuals. Everybody has the responsibility to protect our resources. Sustainable development provides attainable solutions for the issues like damaging of natural resources and biological systems, population growth, climate change and so on. Thus sustainable development has become the order of the day as well as the need of the day. In order to attain sustainability, Sustainable Development Goals (SDGs) was initiated at the United Nations conference sustainable development in Riode Janeiro in 2012



to produce a set of global goals that would meet the environmental, political and economic challenges based by our world and establish in the year 2015. There are 17 Sustainable Development Goals which are interlinked. The successful accomplishment of SDGs depends upon the creation of awareness among each and everybody about 17 SDGs and the way in which they can be achieved especially among the youngsters. The youngsters are in the hands of higher educational institutions especially in university and colleges. They take lot of measures for attaining the Sustainability. Universities are big bodies and many colleges are affiliated to them. The Colleges especially Arts and Science Colleges are established to meet the local needs of the community. They have the youngsters in their hands and shape them for the future. In this research article, an attempt has been made to analyze the role of Arts and Science Colleges in sustainable development.

### 1.2. Statement of the problem

Academic Institutions are creating the future pillars of the nation. All the academic institutions like schools, colleges and universities are taking much steps to move the children and youngsters in a right direction by molding them to understand the values of everything. In this way colleges especially Arts and Science Colleges are encouraging the students to know the values of sustainable development by curriculum, various awareness programs, and various extension activities and so on. Thus in order to analyze the role of Arts and Science Colleges in achieving sustainable development the researcher has made an attempt to find probable answers for the following questions:

1. If the Arts and Science Colleges are aware of the sustainable development and goals/
2. What are the activities taken to achieve SDGs?
3. What are the steps that can be taken in future by them for further achievement of sustainable development?

### 1.3 Research Gap

Many research studies have been made in the field of sustainable development.

**Mahmud (2017)**<sup>1</sup> made an attempt to grasp why and how Education for Sustainable Development (ESD) is implemented in a Higher Education Institutions (HEI) and to identify the contexts in which it was created and implemented. The author gave an insight to understand ESD enactment in HEI in the context of Asian and developing countries. The changes in the environment like prolife rating sustainability causus and global influence are considered by the lectures as motivating factors for the enactment of ESD in university. **Chankseliani (2020)**<sup>2</sup> mentioned that higher education is common good builds on the values that we collectively share, like social justices and harmony, and it offers a assuring vision for the future, post pandemic higher education. **Elizabeth (2021)**<sup>3</sup> explained that universities provide values to the economy, society and environment via education, research, innovation, leadership and influence, community engagement and through developing the potential of their students as citizens and social influences. She suggested in taking more efforts to initiate strong tools to assess graduate capability. **Sterling (2004)**<sup>4</sup> argues that the response of higher education should not be forcing only on the integration of Sustainability into the higher education as it invites a limited and adaptive response. Instead it is essential to see the necessary transformation of higher education towards the integrated and more whole state implied by a systematic view of sustainability in education and society, though it is difficult to realize. **Redman et al. (2020)**<sup>5</sup> in their study, structured the field of sustainability and competency assessment by providing a criteria-based overview of the currently used tools and highlighted premising future developments. They concluded that there is an immediate



need of competent professionals to contribute to societal transformation towards sustainability, and educational institutions ought to prepare students for their roles. **Bruderman et al. (2019)**<sup>6</sup> found from their survey that the base elements like interdisciplinary and trans-disciplinary. Internationally complex systems and digitalization of sustainability development education are not considered as the most important factors by the students for their academic education. **Monika sadp (2019)**<sup>7</sup> interpreted that in order to ensure sustainable development which will meet the needs of present and future generations, it is necessary to equip all individuals with the appropriate knowledge and skills to shape a system of sustainability related values. **Vidicap (2019)**<sup>8</sup> used the case study method to identify how do universities contribute to fundamental research, combining existing knowledge, education and training, community involvement and creating space for open exploration of ideas. **Wisdom (2021)** suggested E-learning pedagogical approaches such as, assessment of students' learning, writing assignments including short essays and research papers and case study responses electronically, assigning students to small groups to provide peer feedback and build community and students presentation can be modified to the online learning environment. **Ghayad (2020)**<sup>10</sup> explained that universities play a fundamental role in the development process as they are responsible for meeting the needs of society in terms of manpower equipped with intellectual and professional skills and they are also liable for educating people psychologically and socially which makes it easier for them to accept social change.

Many researchers have analyzed the Role of Universities in attaining the Sustainable Development rather than Arts and Science Colleges. Hence the present study has been undertaken.

#### 1.4 Objectives of the Study

The important objectives of the studies are:

1. To study the level of awareness among Arts and Science Colleges regarding SDGs.
2. To explain the activities taken by them in achieving sustainability and
3. To offer suggestions for achieving sustainability.

#### 1.5 Study Area

The study area is limited to Dindigul District in Tamilnadu. Dindigul District consists of Arts and Colleges, Engineering Colleges, Polytechnic Colleges, Nursing and Paramedical Colleges and Education Colleges. This study limits to the Arts and Science Colleges of Dindigul District.

#### 1.6 Scope of the Study

This study covers the awareness of SDGs among Arts and Science Colleges and activities taken by them in achieving Sustainable Development.

#### 1.7 Population of the Study area

The study area has 27 Arts and Science College which is presented in the following Table 1.1

**Table 1.1. Population of the Study Area**

S.No	Type of Colleges	Number of Colleges
1	Government Aided Colleges	3



2	Government Colleges	4
3	Self Financing Colleges	18
4	Evening Colleges	2
	<b>Total</b>	<b>27</b>

Source: Official Website, Collegiate Education

### 1.8 Sample Size

The study includes all the 27 colleges, thus no sampling is followed. Information has been collected from one representative from each college.

### 1.9 Statistical Tools Used for Analysis

For analyzing the data collected from the representatives of 27 Arts and Science colleges located in Dindigul District, Percentage Analysis has been used.

### 1.10 Analysis and Interpretation of Data

#### 1. Awareness of SDGs.

The Sustainable Development Goals is a widely accepted developmental agenda at global level. It is expected that everyone of us should have knowledge about SDGs and should be willing to contribute to their attainment. Any organization of the institution will take initiatives for the sustainable development only when they are aware of the Sustainable Development Goals. Arts and Science colleges may have different awareness level about SDGs. The following Table 1.2 gives details about the Awareness of Sustainable Development Goals of the 27 respondent colleges.

**Table 1.2. Awareness of Sustainable Development Goals of the Respondents.**

Number	Goals	Aware	Some Extent	Not aware
SDG-1	No Poverty	20	7	-
SDG-2	Zero Hunger (No Hunger)	18	9	-
SDG-3	Good Health and Well-being	19	6	2
SDG-4	Quality Education	24	3	-
SDG-5	Gender Equality	20	7	-
SDG-6	Clean Water and Sanitation	19	8	-
SDG-7	Affordable and clean energy	14	13	-
SDG-8	Decent Work and Economic Growth	17	10	-
SDG-9	Industry, Innovation and Infrastructure	10	16	1
SDG-10	Reduced Inequality	17	9	1
SDG 11	Sustainable cities and communities	12	13	2
SDG 12	Responsible consumption and production	10	14	3
SDG 13	Climate action	10	13	4
SDG 14	Life below water	12	11	4
SDG 15	Life on land	12	12	3
SDG 16	Peace, Justice and strong institutions	16	11	-
SDG 17	Partnership for the goals	12	13	2

Source: <https://www.un.org/development/desa/disabilities/envision2030.html>

Table 1.2 indicates that the respondent Arts and Science Colleges are highly aware of Quality Education (SDG 4) followed equally by No Poverty (SDG 1) and Gender equality (SDG 5). Next to this they are aware of Good health and well-being (SDG 3) and clean water



and Sanitation (SDG 6). Following these, they are aware of Zero hunger (SDG 2) and then Quality education (SDG 4), and Reduced Inequality (SDG10). Regarding the other Sustainable Development Goals, they have only limited awareness. It may be concluded that most of the Arts and Science Colleges are much aware of the SDG 4 that is “Quality Education”. SDG 1 that is “No Poverty” and SDG 5, that is ,“Gender Equality”.

The level of awareness can be considered as an important aspect for their achievements. Over a period of 7 ½ years into the implementation of the SDGs, a little over three fourth of the respondents are aware of the SDGs. The ultimate motto of SDGs is “no member be left behind”. Thus the awareness level must be improved by the Arts and Science colleges.

### 1. Actions taken by the Arts and Science Colleges for achieving Sustainable Development

The Arts and Science Colleges are playing a significant role in achieving sustainable development. Even with or without the knowledge of SDGs they are taking lot of measures. Only the goals such as SDG-1,2,3,4,5 & 10 are considered as the respondents that are highly aware of these goals as compared to other goals. These are presented in the following Table 1.3.

Table 1.3

S.No	Goal	Type of activities	Frequency	Percentage (%)
	SDG-1	Free education to the poor students	12	44.4
	SDG-1	Providing educational scholarship	21	77.8
	SDG-1	Employment Opportunities	14	51.9
	SDG-1	Village adoption	14	51.9
	SDG-2	Reducing food wastages.	15	55.6
	SDG-2	Encouraging organic farming	12	44.4
	SDG-3	Educating for the prevention from diseases	21	77.8
	SDG-3	Conducting health programs	20	74.1
	SDG-3	Awareness program for girls students to have sexual and reproductive care	21	77.8
	SDG-4	Completion of syllabi within prescribed time	22	81.5
	SDG-4	Practical exposure in the subject we teach	20	74.1
	SDG-4	Equal chance to men and women students in all type of education	22	81.5
	SDG-4	Special training to the faculties to improve quality of education	22	81.5
	SDG-4	Encouraging the students to use the library regularly	24	88.9
	SDG-4	Encouraging the students to pursue higher education	23	85.2
	SDG-5	Opportunities are given equally between men and women	23	85.2
	SDG-5	Anti ranging cell	21	77.8
	SDG-5	Empowerment program	21	77.8
	SDG-10	Good class room facilities to all the students	20	74.1
	SDG-10	Reinforcing girls and women’s rights	20	74.1
	SDG-10	Equal restroom facilities to all the faculty and	22	81.5





	students		
SDG-10	Equal provision of computer facilities	21	77.8

**Source: Primary Data**

It is identified from the above Table 1.3 that various activities have been taken for the sustainable development and focusing on SDG 1, SDG 2, SDG3, SDG 4, SDG 5 and SDG 10. Among them SDG 4 includes various activities like encouraging the students to use library(88.9%), encouraging the students to pursue higher education(85.2%), opportunities are given equally between men and women(85.2%), special training to the faculties to improve the quality of education (81.5%), completion of syllabi within prescribed time play a significant role in developing sustainability. Next to this, various activities have been taken by many respondents for SDG-5(Gender equality) such as, (Opportunities are given equally between men and women 85.2%), and Anti ragging cell and Empowerment program (77.8% each)for SDG-10(Reduced Inequality), such as, Equal restroom facilities to all the faculty and students(81.5%), Equal provision of computer facilities(77.8%), and Good class room facilities to all the students and Reinforcing girls and women's rights(74.1%). As regards SDG- 3 (Good Health and Well-being), many respondents are educating for the prevention from diseases(77.8%), and as regards SDG1(No Poverty), 77.8% are Providing educational scholarship, 51.9% each provide employment opportunities and engage in village adoption programme and 44.4% are providing free education to their students. But in case of SDG 2, students are educated to reduce food wastages (55.6%). The analysis shows that many Arts and Science colleges in Dindigul District are taking number of activities to the maximum possible extent from their side. But this may not be sufficient as other colleges must also take initiatives for achieving sustainability.

**1.9 Suggestion for the Improved Role**

Following suggestions are offered for the Arts and Science College for the attainment of Sustainable Development.

1. The students should be given the curriculum with the characteristics of employability and entrepreneurship.
2. The curriculum should be designed in such a way that they should suit to the local needs of the community.
3. The student must be given good and positive environment for peaceful learning.
4. They must be encouraged to use the library regularly to enhance their knowledge in the right path.
5. They must be encouraged to make use of the social media in the right way which would definitely pave way for their self development.
6. Proper toilet facilities with good sanitation must be provided which would be the major source of health of the students.
7. Adequate and good water facilities should be provided to all in the campus.
8. Steps should be taken to eradicate poverty and inequality among students.
9. The faculties should be provided adequate training in their field to enhance the quality of the students.
10. Students must be encouraged to consume any resources only for their requirement and to avoid over consumption and misconsumption.
11. Nearby villages must be adopted and continuous programs should be conducted there to enhance their awareness level about their health issues and literacy requirement.



12. The Arts and Science College should have clean and green campus that protects the environment within the campus.
13. Provision of good and clean water is mandatory for all the colleges. But it should be done naturally instead of Reverse Osmosis (RO) water.
14. The students must be encouraged to go for alternative energy resources etc, switching to electronic bikes, electronic cars, buses, van etc. which would reduce the petrol consumption in a great manner.
15. Many plants should be planted in the college.

### 1.10. Conclusion

Every one is stakeholders in achieving Sustainability. Higher Education Institutions, especially Arts and Science colleges have a significant role in the implementation of Sustainable Development Goals. Over and above the activities undertaken by them hitherto is essential to improve actions at a higher level like encouraging the students in conducting research programmes in the area of sustainable development. The Arts and Science colleges should also be given priority by the Government and other funding organizations in funding for research activities. They have to make a significant change in the curriculum which would give practical exposure to the students to the maximum possible extent and various other activities to give quality education. If quality education is given properly to the students from different areas, definitely we will achieve the other interlinked universal Sustainable Development Goals positively. Thus, the Arts and Science Colleges have a significant role in shaping the youngsters towards sustainability. We need changes in the world.

“ Be the change you wish to see in the World” – Mahatma Gandhi<sup>11</sup>

Yes the Arts and Colleges can do the best for the sustainable development.

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