



# **“A Study on Environmental Awareness of Secondary level Students in rural and urban schools of Karnataka”**

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## **Abstract**

The study aims to explore the Environmental awareness of secondary level students in rural and urban schools to understand the level of their knowledge, behavior, and attitude towards the current issues of environment. Data was collected using structured questionnaires and analyzed quantitatively. The study emphasizes the need for context - based education that bridges the knowledge gap and promotes active participation of students and also highlights the need for targeted educational programs with a focus on fostering a deeper knowledge, understanding and commitment to environmental sustainability among all students. The findings will help in recommending strategies to enhance environmental education, making it more effective and relevant for students across different regions of the state.

**Keywords:** *Environment, Awareness, Secondary level, Environment Education, Attitude, Participation*

## **1.0 Introduction**

Education is a systematic process through which a child or an adult acquires knowledge, experience, skill and sound attitude. It makes an individual civilized, refined, cultured and educated. For a civilized and socialized society, education is the only means. Its goal is to make an individual perfect. Every society gives importance to education because it is a panacea for all evils. It is

the key to solve the various problems of life. Environmental education acts as a necessary tool in the battle against the degradation of living environment (Zahid Bashir *et al*, 2022). The degradation of the environment is mainly linked with the development process (Amal Goswami, 2021). Environmental education refers to organized efforts to learn, teach and train people

how our natural environment functions and particularly how human beings can manage their behaviour, attitude and willingness towards conservation of ecosystem to live sustainably on this planet. It is a multi-disciplinary field integrating disciplines such as Biology, Chemistry, Physics, Ecology, Earth Science, Atmospheric Science, Mathematics and Geography(9).

### **Need and importance of the study**

Environmental awareness is an ideology that instils in humans an urge and responsibility to respect, protect and preserve the natural environment from anthropogenic afflictions (Rai & Rai, 2021). Since human decisions are the main factor contributing to the planet's degradation, it is crucial that we are environmentally conscious in order to do our part to protect and preserve our planet (Jorlim *et al*, 2024). Thus, Environmental awareness is important for students in both rural and urban schools because it helps them understand how to protect the environment and sustain life on Earth. Here are some reasons why environmental awareness is important:

#### **Protect the environment**

Environmental awareness helps students understand the importance of protecting the environment and the impact that human actions have on the planet.

#### **Sustain life**

Environmental awareness helps students understand how to sustain life on Earth for future generations.

#### **Improve quality of life**

Environmental awareness helps students understand how to improve the quality of life for themselves and others.

#### **Be a responsible citizen**

Environmental awareness helps students become responsible citizens who are involved in their community and take action to help sustain natural resources.

### **Statement of the problem:**

For the present study the problem was formally stated as given below- "A Study on Environmental Awareness of Secondary level Students in rural and urban schools of Karnataka".

### **1.1 Objectives of the study:**

**Raise awareness:** Make students aware of environmental issues like climate change, loss of biodiversity, and pollution.

**Develop attitudes:** Help students develop healthy attitudes and behaviors towards the environment.

**Understand problems:** Help students understand the causes, manifestations, and impact of environmental problems.

**Solve problems:** Help students learn how to solve environmental problems.

**Prevent problems:** Help students learn how to prevent environmental problems from recurring.

**Develop a cautious mind:** Help students develop a cautious mind about their surroundings.

**Develop skills:** Help students develop skills and attributes to improve life and protect the environment.

**Foster harmony:** Help students foster harmony with nature.

## **2.0 Materials and Methodology**

The population of the present study includes secondary level students in rural and urban schools of Karnataka.

### **Tools:**

In the present research activity as per need of the study a set of questionnaires consisting of 20 nos of question were prepared, and supplied to the selected representative sample taken for study and

get with their views. The questions are mainly based on students' awareness about environment, attitude, living style and activities towards environment, and its problems. After compiling their answers, the investigator analysis each question answers one by one and find out a conclusion and express the views for better environment. In addition to this observation was also used at the time of data collection.

### Procedure of data collection:

In the present study, after preparing the tool, the researcher decided to collect data and was followed a systematic procedure. The researcher made his best effort to gather most reliable and valid data. The researcher personally visited 3 numbers of selected Secondary schools and met the students of rural and urban schools of Karnataka with the prepared questionnaires. Altogether the researcher met 100 numbers of students. He personally met the respondents and had some informal talks with them to build a good rapport. Then the researcher disclosed the purpose of his visit. Then the researcher according to the items of the questionnaires took responses of the students. The responses were recorded properly,

and at the same time the researcher made an observation on the attitude and awareness on environment of the students. Observations were recorded by the researcher separately in the dairy carried by him. It took one week to collect the data. Thus, the researcher collected the data from the students with co-operation.

**Statistical techniques used:** In the present study simple techniques were used to analyze the data gathered from the respondents, they were frequency and percentage.

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### Analysis and interpretation of data:

The present interpretations of data were made out of the collected data from the sample selected for study. A set of questionnaires were prepared for the Secondary level students, and on the basis of questionnaire the analysis was done.

**The following table reveals the data of environmental awareness among the students who are the sample for our survey.**

| Sl No | Items   | Frequency |    | Percentage of Frequency |     |
|-------|---|-----------|----|-------------------------|-----|
|       |   | Yes       | No | Yes                     | No  |
| 1     | Do you keep the environment neat and clean?   | 90        | 10 | 90%                     | 10% |
| 2     | Do you think that our environment is pollution free?  | 95        | 5  | 95%                     | 5%  |
| 3     | Do you know about the factors of environmental pollution?   | 85        | 15 | 85%                     | 15% |
| 4     | Have you adopted any means to keep your environment pollution free?                                       | 10        | 90 | 10%                     | 90% |
| 5     | Do you think that the rapid growth of science and technology is another cause of environmental pollution? | 80        | 20 | 80%                     | 20% |
| 6     | Do you think a pollution free environment is needed to live peacefully?                                   | 96        | 4  | 96%                     | 4%  |

|    |   |                    |                       |                         |                        |
|----|---|--------------------|-----------------------|-------------------------|------------------------|
| 7  | Are you aware about the plan/policies taken by the govt to control the environment pollution?             | 20                 | 80                    | 80%                     | 20%                    |
| 8  | Do you think that the polythene bags, artificial chemicals or manure etc creates environmental pollution? | 93                 | 7                     | 93%                     | 7%                     |
| 9  | Do you know that environmental pollution is dangerous for the next generation?                            | 95                 | 5                     | 95%                     | 5%                     |
| 10 | Do you think that environmental education should be included in the curriculum of all stages?             | 97                 | 3                     | 97%                     | 3%                     |
| 11 | Do you know that the pollution of environment is the source of all kinds of diseases?                     | 93                 | 7                     | 93%                     | 7%                     |
| 12 | Do you know that the environment can be protected from Pollution?   | 97                 | 3                     | 97%                     | 3%                     |
| 13 | Is there any meeting held on environmental awareness in your area?  | 90                 | 10                    | 90%                     | 10%                    |
| 14 | Do you participate in any environmental awareness programme?  | 85                 | 15                    | 85%                     | 15%                    |
| 15 | Is the unnecessary cutting of trees the main cause of natural calamity?                                   | 90                 | 10                    | 90%                     | 10%                    |
| 16 | Do you plant trees at your home and school?   | 95                 | 5                     | 95%                     | 5%                     |
| 17 | (a) Do you face any natural calamity?<br>(b) Is environmental degradation being responsible for it?       | 5<br>100           | 95<br>0               | 5%<br>100%              | 95%<br>0               |
| 18 | What is used for cooking at your family?<br>(wood fire/natural gas/coal)                                  | 98<br>(used LPG)   | 2<br>(used wood fire) | 98%<br>(used LPG)       | 2%<br>(used wood fire) |
| 19 | From which source do you use your drinking water?<br>(river/spring/tubewell/filtered water)               | 90(filtered water) | 10<br>(tubewell)      | 90%<br>(filtered water) | 10%<br>(tubewell)      |
| 20 | How is your privy system?<br>(open/permanent/temporary)   | 98(permanent)      | 2(temporary)          | 98%<br>(permanent)      | 2%<br>(temporary)      |

## Variables studied

The following variables were studied in the present research:

### a) Independent variable

- i) Sex: Male and Female
- ii) Locality: Rural and Urban
- iii) Type of Institution: Govt. & Private

### b) Dependent variable

Environment Awareness Score

## 3.0 Results and Discussion

Students in secondary school are an important target group for environmental education because they are at an essential stage in their cognitive, affective and social development (Monika Sood, 2023). The above study shows that 90% of students try to keep their surroundings clean and 95% were of the opinion that a pollution free environment is required to live peacefully. On the contrary 5% of students have no idea on pollution free environment. 15% of students were lacking knowledge of the factors that causes environmental pollution. Only 20% were aware about the plan and policies framed and taken by the Govt. to control the pollution. From the study it was to know that 7% of students were unaware that polluted environment can causes diseases. It is assumed from the study the students no provision of any meeting, discussion on environment. The study also reveals that 5% students faced natural calamities but 100% of students were of the opinion that environmental degradation causes natural calamities.

The above study reveals that majority of students possess knowledge on environmental education. The percentage shows that majority of the families of the students use LPG, permanent privy systems, filtered water. The study also reveals that 90% are of the opinion that cutting of trees is the main cause of natural calamity. The data gathered from them shows, that are aware about the healthy

and pollution free environment. Above all these it has been found positive attitude, towards environmental education. A higher percentage of students thought that the environmental education should find place in the curriculum of all stages. It can be safely concluded that the people are t aware and conscious about environment. But it does not mean that it is difficult to make them aware. It requires planned effort at school level to educate the students, and provision should also be made to make the guardians aware and concern on environmental issue by arranging meeting, different programmes on environment by the Govt. and private sector.

The above study reveals that almost 80 percent of students possess a fair knowledge on environmental education. Majority of them posses' poor knowledge on environmental plan and policies taken by the govt. to control pollution, and the concept that pollution of today might cause problem for the future generation. The percentage shows that majority of the families of the students used LPG, sanitary latrines, filtered water. They try to fulfil most of their necessities from environment. The data gathered from them shows, that they are aware about the healthy and pollution free environment. Poor awareness created a negative attitude towards environment proved that they were not conscious and has no knowledge in the context of environmental pollution and degradation and about the disease that occurred due to environmental pollution. But in this respect few students have a good knowledge.

Above all these it was revealed that though the students were unaware of some environmental issues, but the possess a positive attitude towards environmental education. A higher percentage of students thought that the environmental education should find place in the curriculum of all stages. Here the researcher tries to find out the factors that have acted as resistance to make the students environmentally aware and to provide solution to the problem. So, they can construct different types scales to the teachers, educators to investigate the cause of the growth of environmental pollution.



The researchers may extend the study to other parts of the country to have a generalization of result which will help the environment experts to frame policies for creating a suitable and conducive environment (Panigrahi, 2016).

Most of the environmental education programmes in India focuses only on the awareness level, but merely raising awareness cannot help to promote responsible environmental behaviour. The attitudes and an activity with awareness environmental education is the potential to provide awareness (Redclift *et al*, 2013). Environmental Education must go beyond the level of awareness building and able to involve learners actively in activities relating to conservation and protection of the environment. Therefore, only a value based and action-oriented system of environmental Education can lead students from awareness and knowledge to concern and feeling and ultimately to proper action for preservation and protection of environment.

The Govt and Non Govt organization must give importance in organizing meeting, Seminar, discussion, symposium, debate etc on environmental issue to make the people aware and make concern about it. Emphasis should also be given in observing World Environment Day and try to involve the students and local people to carry out the programme fruitfully.

The teacher should make compulsory for the students to plant trees or flower or fruit plant in the school, and the responsibility of taking care of the plants should be bestowed upon the students. • The authorities of the schools should recruit special teacher for Environmental Education and create in them for knowing environmental education. For such purpose syllabus should be framed effectively. Eco clubs activities must be strengthened by providing funds for the research on the development of ecofriendly system as they are crucial in developing the next generation's understanding about importance of nature around us (Parul *et al*, 2022)

## 4.0 Conclusion

From the above study it is very clear to us that majority of the secondary level students of rural and urban schools of Karnataka possessed around 80% of knowledge on environmental education. It is because the life standards of the families of the students are not satisfactory. But on the other hand, they showed their keen interest to know about the environment and they are in favour of introducing environmental education in the curriculum of all stages of education. The present syllabus of the environmental studies in the school may be reviewed in the light of recent needs and prospects. The schools must be encouraged in setting up appropriate environment condition in them. Govt should provide incentives to the school for maintaining a good environment. Provision should be there for arranging meeting and organizing programme like debate, discussion, seminar on environmental issue, and observing World Environment Day. The teacher should be highly specialized to provide better learning environment and also provide knowledge on environment to the pupils to get fair knowledge on it, and could become more environmentally conscious. The Govt, Non-govt. organization, local bodies, and self-help groups should facilitate the people to enrich the knowledge of environment. EE must go beyond teaching about environmental issues. Environmental Education (EE) was defined that the learning process which built the people knowledge and awareness regarding the environment and associated problems (Sudhakar *et al*, 2020)

EE must give students attitudes, behaviour, knowledge and practical skills that will enable them to continue learning after they leave school, to facilitate sustainable lifestyles.

The following list demonstrates the types of skills students will need. The skills fall into one or more of the three realms of sustainable development - environmental, economic, and social and may be grouped into the following categories;

- The ability to communicate effectively (both orally and in writing).
- The ability to think about systems (both natural and social sciences).
- The ability to think in time - to forecast, to think ahead, and to plan the ability to think critically about value issues.
- The ability to separate number, quantity, quality, and value.
- The capacity to move from awareness to knowledge to action.
- The ability to work cooperatively with other people.
- The capacity to use these processes: knowing, inquiring, acting, judging, imagining, connecting, valuing, and choosing.
- The capacity to develop an aesthetic response to the environment. EE is an ongoing process. It should be approached as a series of small steps and expectations should be kept as realistic as possible. A strong understanding of what sustainability involves within the context of school and wider community is essential as it has been emphasized by several earlier workers. Environmental education with sustainability is not a short-term goal; it takes a long time to achieve.

Thus, EE needs to be embedded in the school action and curriculum plans to ensure it continues even when there are staff changes. It should be remembered that the main aim of environmental education is to develop environmentally responsible individuals who are informed and skilled enough to act for the environment. The comprehensive environmental education pre-service and in-service programs for teachers should be designed. Each school should be required to employ a minimum number of teachers trained for environmental education. If more teachers understand the urgent need to act for the environment, promotion of environmental education among teachers will be far easier. For more effective teaching, teachers should be able to better communicate environmental values and perspectives related to EE rather than just relying on textbooks and executing merely a teacher-proof science curriculum. These findings suggest

that teachers involved in environmental education for school students need to be more knowledgeable in attaining the goals and objectives of EE and the required innovative curriculum guidelines in science, social studies, and languages and environmental studies subjects to encourage greater incorporation of EE in classrooms. 32 Environmentally concerned teachers, parents, and communities should stress for the implementation of effective EE standards. This makes real sense if we conclude that teachers will plan for and implement.

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