

A Study of Environmental Awareness and Attitude towards Environmental Degradation of Senior Secondary School Students

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Abstract

Environment is defined as a surrounding or conditions influencing development or growth of an individual. It can be understood as a system which includes all living and non living things that is air, water, soil, vegetation flora and fauna. Environmental Awareness is concern towards environment or environmental problems. In other word it is defined as "an idea holding a general impression or consciousness about something without having to know much about it." (Roberta, 2009). In the past two decades, environment has attracted the attention of decision makers, scientists and even laymen in many parts of the world. They are becoming increasingly conscious of issues such as famines, droughts, floods, scarcity of fuel, firewood and fodder, pollution of air and water, problems of hazardous chemicals and radiation, depletion of natural resources, extinction of wildlife and dangers to flora and fauna. People are now aware of the need to protect the natural environmental resources of air, water, soil and plant life that constitute the natural capital on which man depends. The environmental issues are important because the absence of their solutions is more horrible. Unless environmental issues are not solved or not taken care of the coming generations may find earth worth not living. The need of the planet and the needs of the person have become one. Environmental Attitude a learned predisposition to respond consistently favorable or unfavorable manner with respect to the environment" (Uitto, 2004). Environmental degradation is the decline of land productivity and forest cover due to human and environmental factor.

Environment constitutes a very important part of our life. To understand life without studying the impact of environment is simply impossible. The need to protect environment can be Ignored only at our peril. We use environmental resources in our day to day life. These resources are renewable and non-renewable. We have to be more cautious in consuming non-renewable resources like coal and petroleum, which are prone to depletion. All human activities have an impact on environment. But in the last two centuries or so, the human influence on environment has increased manifold due to the rapid population.

Keywords: *Environmental awareness, natural resource, biodiversity, energy, pollution, environmental issues, lengths of teaching experience, subject specialization, Iran, India, Environmental Awareness Test (EAT), science and arts.*

1. Introduction

There is nothing beyond nature, behind nature and other than nature. Life does not occur in vacuum. The balance of natural ecosystem is taken care by the nature itself, but with the intervention of the human beings the system is disturbed and leads to deterioration of environment today. In the mad race for development man has been ruthlessly consuming natural resources and polluting the environment. Several species of flora and fauna are on the verge of extinction. Forests are diminishing at an alarming rate, land masses are getting eroded, climate in different parts of the world is undergoing a change due to global warming and clean air and water are increasingly becoming rare commodities. So an awareness of environment needs to be created through the formal education of our children from school and continuing adulthood.

Environment has become the concern of all, the academicians, intellectuals, scientists, policy makers and governments across the continents. People have become more concerned about the environment. The environmental movement has focused attention on the quality of air we breathe and the water we drink, and how new dam construction harm wildlife and how strip mining devastate the landscape and causes floods. We are beginning to realize that virtually all aspects of the world around us can have profound and potentially negative effects on our health and well being.

Decades ago when environment was not a buzz word, Mahatma Gandhi said, “ The earth provides enough to satisfy needs , but not greed.”

In this context Rousseau opinions that everything is good coming from the hands of the creator, everything is degenerated in the hands of man.

Human beings have to produce food and other material required for their satisfaction. Thus the mankind has disrupted many biological cycles in the nature. Still more disrupting is forming on hill slopes and the invention of chemical fertilizers, pesticides etc. Industrialization and urbanization have also led to further environmental degradation. Mankind has better understanding of natural laws and can perceive both the more immediate and the more remote consequences of its inference with the traditional causes of nature. But knowledge of the biophysical event alone is not sufficient. It is the socioeconomic environment that determines humanity’s interaction with the biophysical environment and in turn it is modulated by the cultural environment. The relationship of environment and humankind is deep and has been recognized from the vedic period. Furthermore nonviolence towards both inanimate and animate components of biosphere has been ingrained as a guiding principle in the Indian psyche. Therefore awareness and environment education is the paramount concern of all the citizen of society. The key to achieve the goal of environment awareness lies in environmental education and its related programs. The objective of environmental education includes awareness, knowledge, attitude, skills and participation of people in protecting the environment.

Environmental education is a new approach to teaching about men’s relationship to his environment. The awareness of environmental problems is social awareness. Environmental awareness makes one conscious about the need to understand consequences of the exploiting conditions of existing environment can be reduced.

By educating our youngsters regarding environmental problems, we will about to create an awareness that will enable them to accept the challenge and the responsibility of community. Basic aim of environmental education is to succeed in making individual’s understand the complex nature of natural and man made environment resulting from the interaction of their biological, physical, social and other aspects and required knowledge, attitude and practical skill to participate in responsible and

effective manner in anticipating environmental problems and in managing quality of the environment.

2. Review of Literature

Environmental Awareness: Environmental Awareness is concern towards environment or environmental problems. In other word it is defined as “an idea holding a general impression or consciousness about something without having to know much about it.”(Roberta, 2009). In the past two decades, environment has attracted the attention of decision makers, scientists and even laymen in many parts of the world. They are becoming increasingly conscious of issues such as famines, droughts, floods, scarcity of fuel, firewood and fodder, pollution of air and water, problems of hazardous chemicals and radiation, depletion of natural resources, extinction of wildlife and dangers to flora and fauna. People are now aware of the need to protect the natural environmental resources of air, water, soil and plant life that constitute the natural capital on which man depends.

The environmental issues are important because the absence of their solutions is more horrible. Unless environmental issues are not solved or not taken care of the coming generations may find earth worth not living. The need of the planet and the needs of the person have become one.

Environmental Attitude: Environmental Attitude a learned predisposition to respond consistently favorable or unfavorable manner with respect to the environment” (Uitto, 2004).

Environmental Degradation: Environmental degradation is the decline of land productivity and forest cover due to human and environmental factor. Environment constitutes a very important part of our life. To understand life without studying the impact of environment is simply impossible. The need to protect environment can be Ignored only at our peril. We use environmental resources in our day to day life. These resources are renewable and non-renewable. We have to be more cautious in consuming non-renewable resources like coal and petroleum, which are prone to depletion. All human activities have an impact on environment. But in the last two centuries or so, the human influence on environment has increased manifold due to the rapid population Environment includes all living and non-living objects. We live in the environment and use the environmental resources like air, land and water

to meet our needs. Development also means meeting the needs of the people. While meeting the ever-growing needs, we put pressure on the environment. When the pressure exceeds the carrying capacity of the environment to repair or replace itself, it creates a serious problem of environmental degradation. If we use any environmental resource such as ground water beyond its limit of replacement, we may lose it forever. Therefore, there is a need to create 'awareness' about Environmental protection. While efforts are being made at the national and international level to protect our environment, it is also the responsibility of every citizen to use our environmental resources with care and protect them from degradation. In this lesson we will discuss the meaning and causes of environmental degradation and the importance of environmental conservation. Polluted environment endangers the human race by threatening its survival on planet earth. Boundaries of any nation cannot limit these environmental problems to a particular country and region, but its impact is global one. This large scale environmental degradation has caused a global concern about the conservation and protection of the earth's environment. Hence, efforts are being made for inculcating environmental consciousness or awareness among the masses. It is Education which can make the human being conscious and knowledgeable about environment and Environmental problems. Moreover, awareness is essential for the action. The main purpose of Environmental education in schools is to acquaint and sensitize the young minds to the Environmental problems and concerns, to inculcate in them healthy personal and social attitude and behavior towards environment. Thus, students must have awareness about environment and the problems associated with it so that they can play their role very effectively. The teacher should be aware of the environmental education aspects only then he can make the future generation aware of the environmental problems and their solutions. Taking into consideration this situation, the investigators felt a need to conduct a study to know about the environmental awareness of secondary school teachers in relation to residential background. Subject specialization and teaching experience so that necessary actions could be taken up to come forward with prolific result for enhancing the efficacy of the content provided to them as well as sustain their inner urge for desirable actions. Hence it is necessary to know how far the school

students are aware about environment and environmental problems.

Moyer (1977) developed an unconstructive environmental attitude instrument to measure the environmental attitude of the students. **Gupta (1986)** studied attitude of teachers towards environmental education and he found the majority of teachers showed a favorable attitude towards environmental education. **Shahnawaj (1990)** studied environmental awareness and environmental attitude of secondary and higher secondary school teachers and students. A comparative study of attitude towards population education and environmental education and family planning of different levels of workers in specific occupations was studied by **Singh and Gulzar (1991)**. **Saha (1997)** studied environment, social forestry and concluded that there is a need for the environmental education in Indian context. **Read and Pongracz (2000)** studied public education and awareness rising in UK and concluded that several techniques have been commonly used in Europe and North America to try to motivate residents to participate in all form of waste management. Environmental awareness has been studied with respect to scientific attitude among higher secondary students of Varanasi city (**Bharti Anita, 2002**). **Singh (2005)** studied the scientific phenomenon between holistic education and environmental awareness. None of these nobody had tried to conduct the study related to environmental awareness among higher secondary schools and some educational factors affecting it. **Sinha, Malti (1992)**, studied that to examine the role played by the education in social and occupational mobility after independence. Major finding of this study were more than 80% of educated persons changed their casteprofession and the shift in profession had always been upward. **Fatima, Nusrat Jehan (1989)**, studied the relation between various levels of education and social mobility among women in Bangalore city and concluded that secondary education amongst women had a positive effect on their occupational mobility. **Kalaimathi D. Hemalatha and Kumaran D. (2006)**, studied development and validation of social skills rating scale (SSRS). Social skill implies the selection and exhibition of behavior at appropriate times and in specific situations. Social skills of children were assessed with the help of socio-metric techniques and socio-grams in the past. Singh (2005), conducted a study of scientific phenomenon between holistic education and environmental awareness and concluded that environmental.

Protection, strategies for sustainable development can do only by improving environmental awareness by holistic approach in education. None of these nobody had tried to conduct the study to measure environmental awareness in relation to awareness towards social duty among higher secondary schools and some educational factors (grade course of study, type of institution and parent's education) affecting it.

Analyzing the above research studies some questions have appeared in the mind of investigator-

- What is the relationship between environmental awareness and awareness towards social duty?
- Up-to what extent, the environmental awareness may be predicted by some educational factors and awareness towards social duty?

Investigator has effort to find answer of these above questions. On the basis of these relations investigator has tried to given its main causes. Hence the problem "Environmental awareness in relation to awareness towards social duty and some educational factors affecting it among higher secondary students" is worth studying and will go a long way in solving many problems allied with social issues.

Though various studies have been conducted by **Rajput (1988), Gupta (1986), Robinson (1996) & Surekha (2003)**, the conclusions indicate that they have environmental awareness but the attitude towards environmental protection is negatively related.

The most disastrous event of this century is rapid degradation of environment awareness in the secondary school students. The population explosion has worsen the situation. The people started exhausting the natural resources on one side and on the other creating pollution on the earth affecting the ecological balance in the ecosystem.

Lack of environmental awareness regarding the preservation of the species & culture etc. and conservation of the forests are responsible for degradation of the environmental procurement at gross root level. If it continues, the human civilization will face disastrous situation.

Environmental education for environmental awareness will prepare human society to protect the ecological balance. Environmental education aims at developing in them the knowledge, attitude, skills and communication to protect our nature.

Environmental education is nothing but to educate human society to perceive environment in totality.

In order to achieve the objectives of environmental education, environmental science as a paper has been included in the curriculum in spite of that no change has been observed. For this a study has been conducted in Gurdaspur district of Punjab.

For this a comparative study on Environmental Awareness among Govt. & Private Secondary School Students was conducted.

3. Objective of the Study:-

- 1) To find out the Environmental Awareness of Senior Secondary School students.
- 2) To compare 11th and 12th standard students with regards to their level of environmental awareness and environmental attitude towards environmental degradation.
- 3) To compare art and science students with regards to their level environmental awareness and environmental attitude towards environmental degradation.
- 4) To find out the significant difference in the environmental awareness of Boys and Girls of Senior Secondary Classes.
- 5) To find out the significant difference in the environmental awareness of government and private Senior Secondary School students
- 6) To compare students belongs to CBSE and Haryana Board with regards to their level of environmental awareness and environmental attitude towards environmental degradation.
- 7) To compare male and female students with regards to their level of environmental awareness and environmental attitude towards environmental degradation.

4. Hypotheses:-

- 1) There is significant difference between 11th and 12th standard students in their environmental awareness and environmental attitude towards environmental degradation.
- 2) There is significant difference between art and science students in their environmental awareness and environmental attitude towards environmental degradation
- 3) There is significant difference between students belongs to CBSE and Haryana Board in their environmental awareness and environmental attitude towards environmental degradation.

- 4) There is no significance difference in the environmental awareness of school male and female student
- 5) There is no significant difference in the environmental awareness of the science and art students of schools.
- 6) There is no significant difference in the environmental awareness of the art male and female students of schools.
- 7) There is no significant difference in the environmental awareness of the science male and female students of schools.

There is significant difference between male and female students in their environmental awareness and environmental attitude towards environmental degradation.

5. Delimitation of the Study:-

Following are the delimitations of the present study:-

- 1) Population of the present study consists of higher secondary schools of Rohtak city.
- 2) The study has been conducted on 50 students of 11th and 12th class only.
- 3) All the institutions which have been selected into this study are recognized by C.B.S.E. & Haryana Board of higher secondary school.
- 4) The study focuses on the awareness and attitude towards environmental degradation in some selected students. In addition, the study includes only 11th and 12th standards students of the Sr. Sec schools.

6 .Plan and Procedure

6.1 Design of the study

For the purpose of present study, 1440 students were selected from the 9th standard classes . Stratified random sampling technique was used to select the sample. Totally 36 secondary schools were selected proportionately on random basis; 14 were government secondary schools and 22 were private secondary schools.

6.2 Selection of sample

Among the 14 government schools, 7 were urban government secondary schools and remaining 7 were of rural. Among the 22 private secondary schools, 12 were urban and 10 were rural. The proportion of

the sample of urban and rural secondary school students is almost in the ratio of 1:1 (770:680); boys and girls sample is also in the ratio of 1:1(720:720).

6.3 Selection of tools

There are many tools of research available on environmental problems and its protection from the review of literature. The investigator came to know that most of the researchers used questionnaire and interviews as tool for collecting the data.

The questionnaire was selected for collection of data in the present investigation. The present investigation about 'environmental awareness and attitude towards Degradation ability measure' purports to measure the extent and the degree of awareness and attitude among students. The questionnaire includes statements about environmental problems and its protection. The scale explores the understanding of students about the importance of environment in which they live.

6.4 Statistical treatment

Keeping in view the nature of study and the nature of objectives investigator used such statistical techniques which helps in the analysis and interpretation. The scores obtained by students were calculated manually and calculation are given in appendix-II were rechecked using SPSS software.

7. Analysis and Interpretation of Data

In the preceding chapters the background of the study, review of related literature and the methods and the procedure have been discussed. The next step is to analyze and interpret the data in the light of the objectives of the study. As stated in chapter one, the main purpose of the present study is to study the environmental awareness and attitude among students of Rohtak City.

In Rohtak City

In the present study the measure of central tendency and the measure of dispersion were applied to study the nature of the data, T-test was applied to study the significant difference between girls and boys and science and arts students of schools.

Table 7.1

Analysis and interpretation of objective-II

| Groups | N | Mean | S.D | C.R. value |
|--------|----|---------|-------|------------|
| Male | 80 | 41.2125 | 3.957 | 0.2926 |
| Female | 80 | 41.3875 | 3.598 | |

Not significant at .05 level

Difference in environmental awareness and attitude between schools male and female students

From table 7.1, it is observed that mean scores of male and female are 41.212 and 41.387 respectively. The C.R. value between the two groups has been found 0.2926 which is not significant at 0.05 level of significance. It means that

there is no significant difference between the mean scores of schools male and female student. So hypothesis which states that there is no significant difference in the environmental awareness of schools male and female students, is retained. So there is no significant difference in the environmental awareness of schools male and female students.

Table 7.2

Analysis an interpretation of objective-III

| Groups | N | Mean | S.D | C.R. Value |
|---------|----|-------|------|------------|
| Science | 80 | 42.67 | 3.38 | 5.089 |
| Arts | 80 | 39.8 | 3.75 | |

Significant at 0.01 level

Difference in environmental awareness between science and arts students of schools

It is observed from the table 7.2 that environmental awareness scores of science and arts student of schools are found to be 42.67 and 39.8 with S.D of 3.38 and 3.75 respectively. The C.R. value between the means scores of two groups was found 5.089 which is significant at .01 level of significance. It means that there is significant difference in the environmental awareness of schools science and arts students. Science students are having higher awareness scores than the arts students.

It can be inferred that science students of schools are having better understanding and awareness regarding environment than the arts students. Thus, the hypothesis that there is no significance difference in the environmental awareness between science and arts students is rejected.

There is no significant difference in environmental awareness between science and arts students is rejected.

Analysis and interpretation of Objectives-IV

Table –7.3

| Groups | N | Mean | S.D. | C.R. value |
|--------|----|-------|------|------------|
| Male | 40 | 25.85 | 7.8 | |

| | | | | |
|--------|----|-------|-----|-------|
| Female | 40 | 25.57 | 7.8 | 0.163 |
|--------|----|-------|-----|-------|

Not significant at 0.05 level

Difference in environmental awareness between arts male and female students

From table 7.3 it is observed that mean scores of arts male and female schools students are 25.85 and 25.57 with S.D. of 7.8 and 7.59 respectively. The t-value between the mean scores of two groups was found 0.163 which is not significant at 0.05 level of significance difference between the mean scores of

Analysis and interpretation of Objectives-V

schools arts male and female students. So the hypothesis which states that there is no significant difference in the environmental awareness of arts male and females students of schools is retained.

So there is no difference in the environmental awareness of art's and female students of schools.

Table –7.4

Difference in environmental awareness between science male and female students

| Groups | N | Mean | S.D. | C.R. value |
|--------|----|-------|------|------------|
| Male | 40 | 28.3 | 9.02 | 0.225 |
| Female | 40 | 27.85 | 9.19 | |

Not significant at 0.05 level

It can be observed from table 7.4 that environmental awareness scores of science male and female students are found to be 28.3 and 27.85 with S.D. of 9.02 and 9.19 respectively. The t-value between the mean scores of two groups was found to be 0.225. which is not significant at 0.05 level of significance. It means that there is no significant difference in the environmental awareness of science male and female students of schools.

So the hypothesis which states that there is no significant difference in environmental awareness between science male and female students is retained.

At last it can be said that schools students are highly aware of the environment.

Small towns near Rohtak City:-

The data was analyzed by using descriptive statistics. The normality of the data (Environmental attitude scores) was assessed by calculating Mean and Standard Deviations, test of significance i.e. paired 't' test was calculated to compare the independent variables in between the groups and the hypotheses of interaction effect were tested using the Two Way ANOVA. In order to study the significant difference in mean environmental attitude scores between secondary school boys and girls, 't' test was employed. Table -I: Significance of Difference in Mean Environmental Attitude Scores between Secondary School Boys and Girls.

| Variable | Group | No of students | Environmental | | Mean Difference | t-value |
|----------|-------|----------------|---------------|--------|-----------------|---------|
| | | | Attitude | Scores | | |
| | | | Mean | S D | | |
| Gender | Boys | 720 | 164 | 23.1 | 2.1 | 1.52ns |
| | Girls | 720 | 166.1 | 30 | | |

Ns- Non significance

As indicated in the table-I, the significant difference was checked at 0.05 level of significance. The analysis of the data revealed that, the mean value of the environmental attitude scores of boys was 164.0 with standard deviation of 23.1 and that of the girls' was 166.1 with a standard deviation of 30.0. This indicates that, there is no significant

difference in mean Environmental Attitude scores among boys and girls. Therefore the hypothesis, which states that there is no significance difference in environmental attitude among the secondary school boys and girls was accepted. T able -II: Significance of Difference in Mean Environmental I Attitude Scores Rural and Urban Secondary School Students.

| Variable | Group | No of students | Environmental | | Mean Difference | t-value |
|----------|-------|----------------|---------------|--------|-----------------|---------|
| | | | Attitude | Scores | | |
| | | | Mean | S D | | |
| Locality | Rural | 680 | 157.3 | 25.5 | 10.9 | 8.26* |
| | Urban | 760 | 168.2 | 24.5 | | |

*Significant at 0.05 level of significance

The obtained' value 8.26 is significant at 0.05 level of significance. Hence the hypothesis is rejected, further when means were compared environmental awareness of urban students (M=168.2) is better

than the environmental awareness of rural students (M=157.3). T able III -: Significance of Difference in Mean Environmental I Attitude Scores between GOVT and Private Secondary School Students

| Variable | Group | No of students | Environmental | | Mean Difference | t-value |
|----------|---------|----------------|---------------|--------|-----------------|---------|
| | | | Attitude | Scores | | |
| | | | Mean | S D | | |
| Schools | GOVT | 560 | 159.9 | 33.1 | 8.5 | 6.01* |
| | Private | 880 | 168.4 | 24.5 | | |

Further when the mean Environmental attitude scores of Government and Private schools are compared as shown in table-III, it is found that environmental attitude of students of private schools (168.4 with S.D. 24.5) is better than the

students of Government schools (159.9 with S.D.33.1) and the obtained value 6.00 is significant at 0.01 level and it is more than the table value 2.58. Hence the null hypothesis is rejected.

| Source | SS | df | MSS | F | P | F-table value |
|-------------------------------|----------|------|-------|------|---------|---------------|
| Between Gender | 452 | 1 | 452 | 0.73 | 0.39 Ns | 3.85 |
| Between Locality | 42545 | 1 | 42545 | 68.3 | <0.01* | 6.65 |
| Interaction Gender X Locality | 190 | 1 | 190 | 0.30 | 0.58 Ns | 3.85 |
| With in groups | 895202.4 | 1436 | 623.4 | | | |
| Total | 938389.4 | 1439 | | | | |

The Two Way ANOVA details of scores of girls and boys of rural and urban secondary schools with respect to environmental attitude as shown in the table-IV indicates that the interactions of the variables, gender and locality of the school is not significant as the F-ratio is 0.30 which is less than the

table value 3.85. Hence it is concluded that gender and locality does not have joint effect on environmental attitude of secondary school students as a result the above mentioned hypothesis is accepted.

| Source | SS | df | MSS | F | P | F-table value |
|-------------------------------------|-----------|----|-------|-------|---------|---------------|
| Between Gender | 165 | 1 | 1657 | 2.37 | 0.12 Ns | 3.85 |
| Between Type of School | 25182 | 1 | 25182 | 36.07 | <0.01* | 6.65 |
| Interaction Gender X Type of School | 2648 | 1 | 2648 | 3.79 | 0.06 Ns | 3.85 |
| With in groups | 1002615.2 | | 143 | 698.2 | | |
| Total | 1032102.2 | | 1439 | | | |

From the table-V, it indicates that the interaction of variables, gender and types of school is not significant as the F- ratio 3.79, which is less than the table value 3.85 at 0.06 levels of significance. Hence

it is conclude that gender and type of school does not have any joint effect on secondary school students, as a result the above mentioned hypothesis is accepted.

| Source | SS | df | MSS | F | P | F-table value |
|-------------------------------------|-----------|----|-------|-------|---------|---------------|
| Between Gender | 1657 | 1 | 1657 | 2.37 | 0.12 Ns | 3.85 |
| Between Type of School | 25182 | 1 | 25182 | 36.07 | <0.01* | 6.65 |
| Interaction Gender X Type of School | 2648 | 1 | 2648 | 3.79 | 0.06 Ns | 3.85 |
| With in groups | 1002615.2 | | 1436 | 698.2 | | |
| Total | 1032102.2 | | 1439 | | | |

Ns-Non significant

As indicated in the table-VI, i.e. locality and types of schools is significant as the F-ratio is 68.9 which is more than the table value 6.65 and it is significant at 0.01 level. Hence it is concluded that the locality and types of schools have interaction effect on environmental attitude of secondary school students. Hence the mentioned null hypothesis is rejected.

having quite high level of understanding and awareness regarding our environment.

- 1) The schools male and female students are found to have no difference in their environmental awareness. Thus it can be interpreted that both male and female students are having quite high level of understanding and awareness regarding our environment.
- 2) While making comparison between the environmental awareness scores of schools science and arts students, it was found that

8. Main Findings:

The level of environmental awareness among schools students is high. Both male and female students are

schools science and arts student have difference in their environmental scores. Science students are having higher awareness level than arts students. In short we can say that science students have better understanding and awareness regarding our environment.

- 3) Arts male and female are found to have no difference in their environmental awareness.
- 4) Science male and female are found to have no difference in their environmental awareness.
- 5) Gender does not play an important role on environmental attitude.
- 6) Localities of the schools play an important role on environmental attitude.
- 7) Types of secondary school play an important role on environmental attitude.
- 8) Gender and locality does not have any interaction effect on environmental attitude.
- 9) Gender and type of secondary school does not have any interaction effect on environmental attitude.
- 10) Locality and type of school have interaction effect on environmental attitude.

9. Educational Implications:

The study is supported to emphasize the need of the environmental awareness among the school's students and to solve the problem of environmental pollution. The findings of the study that science students are more aware of environment than the students of arts.

The present study has its implications for the teachers, educators, educational planners, parents and educational administrator to make environmental education as a compulsory subject.

Teacher educator and parents should arrange special awareness programs in the form of seminars, symposiums, camps and community visits to provide awareness to the teachers, students, parents and also masses. Administrators and planners should provide training to teachers for developing or inculcating environmental awareness among the students.

Most common people who understand the knowledge of environment and development process is based on information which is provided by conventional education on traditional beliefs. Thus may remain ignorant about ways in which they could improve traditional production practices and protect

the natural sources in a better way. Education should therefore provide comprehensive knowledge in order to prevent environment degradation and global warming which has been coming out as a serious threat to human society. Unless people have a sensitive attitude towards nature, extremely enforced laws and regulation will be ineffective.

The foregoing discussion confirms that environmental education can play a significant role reducing the imbalances in nature. Now the question arises as how environmental education can spread among the rural and urban areas in India. In this respect mass media can be used like TV, Cinema, News paper etc.

Through formal education environmental education can be imparted in the following three stages.

At Primary School Level:-

At this stage emphasis should be made mostly on building awareness, through real life situation. At this level environmental education would consist mainly of perceiving natural objects, plants and animals etc. Teaching strategy should include audio visual aids and field visit.

At Secondary School Level:-

At this stage general and easy concepts of various environmental problems, their solutions and various theoretical and practical contents which increase the interest of students towards environment should be given preference in the syllabus.

At Higher Level:-

At higher education level environmental education should be included in curriculum as a compulsory subject. At this stage various national and international problems of environment should also be included in the curriculum. Hence the research work regarding different environmental problems, their reason, effect and solutions should also be given place in the curriculum. Practical and action oriented fieldwork should also be managed.

Beside these environmental education should also be included in the curriculum of

teacher training institution, schools, extension training centers, industrial training institutions, polytechnic, engineering institutions so that after getting the training when they will engaged in governmental and non-governmental services, the students will be able to expand the environmental education in the society.

The real fact is that in India more than 50% of the total population do not get the opportunity of formal education. Therefore only formal system of education is not sufficient for creating environmental awareness among the general public. For the mass media such as radio, TV, newspaper, periodicals feature films etc. can be used effectively in the expansion of environmental education.

10. Suggestions for Further Study:-

Environmental education is a vast and relatively new subject. There are various fields in which research can be conducted, some of them are suggested as follows.

- 1) A similar study can be conducted on a larger sample selected from all the districts of Haryana.
- 2) The study can be replicated on a sample at primary, senior secondary and university level.
- 3) Development of environmental awareness programs for different section of the society can be taken up.
- 4) A case study of environmental problems of a locality, village/ town can be done.
- 5) A comparative study of attitude of literate male and female and illiterate male and female towards their environment can be conducted.

11. Conclusions

Environmental attitude of the students in rural areas is due to lack of better exposure to information via all kinds of media. Hence they must be provided better opportunities to gather information regarding environment by conducting symposiums, seminars and exhibitions. The results of the study also indicate that the students belonging to urban background are comparatively better in terms of their environmental attitude as compared to the students belonging to rural back ground. This difference is due

to the difference in the educational level of the parents of urban and rural students and the approaches of the media is also an important factor and also the poor environmental quality in urban areas leads to individuals facing serious health problems. Hence individuals adopt measures to improve their environment quality only if they perceive the associated health problems. The study revealed that, lower environmental attitude of government school students is due to lack of better facilities. Hence it is very important to arrange community activity programmers and make students to actively participate in them. Government and other policy makers should invite authors, field workers and artists to work with creativity to produce special modules to promote environmental attitude.

References

- [1] Aggarwal, Y.P.; Research in Emerging Fields of Education: Concepts, Trends and Prospects. Sterling Publishers, 1988.
- [2] Altman, I.; The Environment and Social Behaviour. California: Brooks Cole, 1975.
- [3] Altman, I.; "Privacy: A Conceptual analysis." Environment and Behaviour, 8: 7-29, 1976.
- [4] Ambasht, R.S.; Environment and Pollution: Ecological Approach, Varanasi: Lanka Publishing House, 1994.
- [5] Anandlakshmy, S. and Bajaj, M.; "Childhood in the Weaver's Community in Varanasi: Socialization for adult roles." In D. Sinha (Ed) Socialization of the Indian Child. New Delhi, Concept, 1981.
- [6] Arora, M. Sinha, P. and Khanna, P.; "Effect of Percieved Household Crowding and Sex on Social Attitudes of the adolescents." Psychological Studies, 40(3): 110-114, 1995.
- [7] Arora, B.B.; Modern's Botany (vol-3). Jalandhar: Modern Publishers, 2001.
- [8] Bhargava, Gopal; Pollution and its control. New Delhi: Mittal Publication, 1992.
- [9] Chattopaadhyay, P.K. et. al.; "Air Pollution and health hazards." Indian Journal of clinical psychology, 20(1):25-30, 1993.
- [10] Desor, J.A.; "Toward a psychologal theory of crowding." Journal of Personality and Social Psychology, 21:70-83, 1972.
- [11] Deshwal, S. & Deshwal, A.; A Basic Course in Environmental Studies. Dhanpat Rai Publications, 2004.

- [12] Dhillon, J. S. and Sandhu, V.; "A Study of environmental education awareness among elementary school teachers." Indian Educational Abstract, Vol. 5, p. 17, 2005.
- [13] Elvan Alp Hamid Ertepinar Ceren Tekkaya, Ayhan Yilmaz; "A Survey on Turkish elementary school student's environmental friendly behavior", 2008.
- [14] Garrett, H.E.; Statistics in Psychology and Education. Kalyani Publishers, 2004.
- [15] Gupta, P.K.; Cytology, Genetics Evolution Ecology, Biotechnology and Biostatistics. Meerut : Rastogi Publications, 1994.
- [16] Gove, W. and Hughes, M.; "Possible causes of the apparent sex differences in physical health: An empirical investigation." American Sociological Review, 44:126-146, 1979.
- [17] Ittelson, W.H. et. al.; An introduction to environmental psychology. New York: Holt Rinehart, 1974.
- [18] Jain, U.; "Effect of population density and resources on the feeling of crowding and personal space." Journal of social psychology, 27: 331-338, 1987.
- [19] Kumar, Rajender; "A study of environmental awareness among visually impaired students M.Ed. (special edu.)." Kurukshetra: Kurukshetra University, 2003.
- [20] Kumar, Yogesh; "Awareness towards Environmental Pollution in the Post Graduate and under graduate students." Kurukshetra : Kurukshetra University, 2000.
- [21] Meeti, Rajan.; "A study on Environmental Awareness Among the Post Graduate Students of Kurukshetra University." Kurukshetra : Kurukshetra University, 1996.
- [22] Parkash; "A Study on Environmental Awareness Among the Graduate Students of M.M. college, Fathabad." Kurukshetra : Kurukshetra University, 1997.
- [23] Sahaya Mary, Ranel Paul Raj; "A study on environmental awareness among high school students." Indian Education Abstract, 2005.
- [24] Sharma, R.A.; Environmental Education. Surya Publications, Vol. 5, p. 17, 2003.
- [25] Sharma, P.D.; Ecology and Environment. Meerut : Rastogi Publications, 1994.