5.1 CONTEXT, NEED AND IMPORTANCE OF THE STUDY

Human’s quest for improving the quality of life through the interactive process with nature is an ongoing phenomena. Scientific and technological achievements are enabling mankind to control and transform the natural environment to suit its needs and demands. Indiscriminate use of this capability, however, has created a situation threatening the existence of humanity itself. What is required is a recognition of the need for both development and proper management of the environment. Also needed is a new concept of development that emphasizes the relation between humanity and nature being mutually supportive and sustainable from a long-term point of view. The qualitative and quantitative assessment of human resource potential has been receiving the attention of policy makers the world over. The concept of “sustainable development” is being incorporated as a guiding factor and monitoring tool to measure the degree of human success in maintaining the man-nature harmony. The concept of “development” must be viewed and understood differently while applying to a developing country like India which has mosaic lamina of varying geographical, cultural, economic and environmental problems and issues. A common thread that can entwine and hold the common national interests together should, therefore be identified and incorporated in our National Policy papers. Towards this goal, the Government of India has identified “Education and Human Resource Development”
as the key policy area. Global experiences have underscored the need for evolving a “user-based” rather than “producer imposed” educational system to ensure a well integrated curricula at all levels and no such curricula would be complete unless it is environment-oriented. Teachers and environmental educators are in the midst of a great change. It is important to use state wide standards to design classroom learning objectives and to periodically ascertain student achievement. It is also critically important to promote student learning about the world in which we live. Environmental education fortunately, can do both. Environmental education programs like “Project learning tree”, engage learners in interactive lessons to discover and apply concepts. These concepts are relevant to the outdoor world and interesting to students. Environmental education programs can be used to promote a renewal of teacher and student interest in learning and with appropriate adaptation, can reinforce the skills that are measured in the state achievement test.

There are a plethora of definitions of “Environmental Education given by different organizations, authorities, scientists, educationists and politicians, reflecting each one’s own philosophy and perception of the subject.

“Environmental education means the educational process dealing with man’s relationship with his natural and man-made surroundings, and includes the relation of population, pollution, resource allocation, depletion, conservation, transportation, technology, and the urban and rural planning with the total human environment”.
Environmental Education is the process of recognizing values and the clarifying concepts in order to develop the skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings.

Environmental Education also entails the practice in decision making and self-formulation quality (International Union for Conservation of Nature and Natural Resources at Nevada).

“Environmental Education is an attempt to reorientate education so that environmental competence is restored as one of its basic aims along with personal and social competence. It is not just a subject of education but an expansion of its whole philosophy recognizing our environment as continuous with ourselves and in need of the same case and understanding as we give to our personal and social well being”.

World educators and environmental specialists have repeatedly pointed out that a solution to environmental crisis will require an environmental awareness and its proper understanding which should be deeply rooted in the educational system at all levels of school education.

The existing curricula at primary, secondary and college levels provide a lot of opportunities to make the students aware of environment. The integration of Environmental Education is possible if the teacher has a will to introduce it in a quite natural way while teaching different curricular areas at primary, secondary and higher education level.
Environmental Education as a separate paper into an already overloaded curriculum may place an unrealistic burden on learners and teachers alike. When this is the case, the next alternative left for us is to find out how best the existing curricula can be restructured so as to provide for Environmental Education. The ideal and the best approach is to consider Environmental Education not as a separate subject but as a dimension of the total curriculum and as an outcome of reorienting various disciplines on an inter-disciplinary basis.

Environmental Education and training should be an integral component of the educational process through formal and structured curricula as also through the non-formal media. This should aim at building professional manpower that comprises of literate and active citizens.

India is one of those countries where Environmental Education has emerged as a significant area of concern. It is clearly reflected in its National Policy of Education (1986). Environmental Education today is viewed as an integral part of the education system at all stages from pre-primary school to the university level. It is well recognized that school system provides the largest organized base for Environmental Education and action. Environmental Education is largely interdisciplinary in nature; both art (doing) and science (understanding) organized from primary to university level. The objectives and the content of Environmental Education to be integrated with the curriculum varies from stage to stage. It is very essential that Environmental Education has to be essentially local specific Environmental Education should permeate the whole curriculum. Curriculum should be related to the immediate environment of the children.
The key to successful Environmental Education is the classroom teacher. If teachers do not have knowledge, skill and commitment to environmentalise their curriculum, it is unlikely that an environmentally literate student will be produced. For this, special training to prospective teachers is necessary. There is a need for a new personal and individualised behaviour based on global ethics, which can be realized only through the enlightenment and training of educational professionals. Thus there is a need for interested teachers and teacher educators.

The political and cultural changes in Iran seem to indicate that the world trend has left its mark on Iran. As such, experience of successful countries, as revealed through comparative studies, could serve as sources of ideas for those involved in the Iranian educational system.

Ever since academic attention was drawn to the environmental crisis and the adoption of Environmental Education as strategy to combat it considerable research has been conducted and essays have been written. However, most of the studies carried out on Environmental Education in Iran have been only in the area of curriculum analysis in order to find out their adequacies or otherwise for integration of Environmental Education into school subjects. Little efforts have been directed at finding out the level of awareness and perceptions of Environmental issues and Environmental Education among the school teachers and learners of the programme. Therefore, this study was conceived to fill this gap. It has sought to find out how students who are the end user of school curricula perceive Environmental Education within existing school subjects.
Environmental Education is a relatively new program in the educational system and the students are not adequately aware of it. The implication of this is that there is a need for the government as matter of priority to make the teaching of Environmental Education in schools compulsory at all levels.

Environmental education increases public awareness and knowledge about environmental issues or problems. In doing so, it provides the public with the necessary skill to make informed decisions and take responsible action. Environmental education does not advocate a particular viewpoint or course of action. Rather, environmental education teaches individuals how to weigh various sides of an issue through critical thinking and it enhances their own problem-solving and decision making skills.

The experience of two countries, India and Iran, which nearly began their journeys towards environmental education together are useful for educational planners in both the countries. It is found that much attention is not given to comparative studies on environmental education of schools in different educational systems. Thus there is a great need for such studies. Comparative education helps in better understanding of the educational process in general and studying details of environmental education in particular. This was the compelling reason why the Investigator undertook the present study and compared environmental awareness and environmental attitude of teachers and students of secondary schools in India and Iran.
5.2 OBJECTIVES OF THE STUDY

In the light of the content, need and importance of the study the following objectives have been formulated and tested.

11. To study the differences in the level of environmental awareness of secondary school teachers in Mysore and Tehran with regard to
   (g) male and Female teachers
   (h) government and private school teachers
   (i) teachers with different age groups
   (j) teachers with different academic qualifications
   (k) teachers with different lengths of experience
   (l) teachers with different area of specialisation

12. To study the level of environmental awareness of secondary school teachers in Mysore and Tehran.

13. To study the differences in the level of environmental attitude of secondary school teachers in Mysore and Tehran with regard to
   (g) male and Female teachers
   (h) government and private school teachers
   (i) teachers with different age groups
   (j) teachers with different academic qualifications
   (k) teachers with different lengths of experience
   (l) teachers with different area of specialisation
14. To study the level of environmental attitude of secondary school teachers in Mysore and Tehran.

15. To study the relationship between the environmental awareness and environmental attitude of secondary school teachers in Mysore and Tehran.

16. To study the differences in the level of environmental awareness of secondary school students of Mysore and Tehran with regard to

   (d) boy and girl students

   (e) government and private school students

   (f) students with different class standard

17. To study the level of environmental awareness of secondary school students in Mysore and Tehran

18. To study the differences in the level of environmental attitude of secondary school teachers of Mysore and Tehran with regard to

   (i) boy and girl students

   (j) government and private school students

   (k) students with different class standard

19. To study the level of environmental attitude of secondary school students in Mysore and Tehran.

20. To study the relationship between the environmental awareness and environmental attitude of secondary school students in Mysore and Tehran.
5.3 HYPOTHESES OF THE STUDY

1. There is no significant difference between male and female teachers in their level of environmental awareness in Mysore and Tehran.

2. There is no significant difference between government and private school teachers in their level of environmental awareness in Mysore and Tehran.

3. There is no significant difference between teachers with different age group and their environmental awareness in Mysore and Tehran.

4. There is no significant difference between teachers with different academic qualifications and their environmental awareness in Mysore and Tehran.

5. There is no significant difference between teachers with different lengths of teachers experience and their environmental awareness in Mysore and Tehran.

6. There is no significant difference between Arts and Science teachers in their environmental awareness in Mysore and Tehran.

7. There is no significant difference between Indian and Iranian teachers in their level of environmental awareness.

8. There is no significant difference between male and female teachers in their level of environmental attitude in Mysore and Tehran.

9. There is no significant difference between government and private school teachers in their level of environmental attitude in Mysore and Tehran.

10. There is no significant difference between teachers with different age group and their environmental attitude in Mysore and Tehran.
11. There is no significant difference between teachers with different academic qualifications and their environmental attitude in Mysore and Tehran.

12. There is no significant difference between teachers with different lengths of teaching experience and their environmental attitude in Mysore and Tehran.

13. There is no significant difference between arts and science teachers in their environmental attitude in Mysore and Tehran.

14. There is no significant difference between Indian and Iranian teachers in their level of environmental attitude.

15. There is no significant relationship between the secondary school teachers in their level of environmental awareness and environmental attitude in Mysore and Tehran.

16. There is no significant difference between boys and girls in their level of environmental awareness in Mysore and Tehran.

17. There is no significant difference between government and private school students in their level of environmental awareness in Mysore and Tehran.

18. There is no significant difference between IX and X standard students in their environmental awareness in Mysore and Tehran.

19. There is no significant difference between Indian and Iranian students in their level of environmental awareness.

20. There is no significant difference between boys and girls in their level of environmental attitude in Mysore and Tehran.
21. There is no significant difference between government and private school students in their level of environmental attitude in Mysore and Tehran.

22. There is no significant difference between IX and X standard students in their environmental attitude in Mysore and Tehran.

23. There is no significant difference between Indian and Iranian students in their level of environmental attitude.

24. There is no significant relationship between the secondary school students in their level of environmental awareness and environmental attitude in Mysore and Tehran.

5.4 OPERATIONAL DEFINITIONS OF THE TERMS USED IN THE STUDY

Comparative study: In this study, comparative study refers to studying and comparing the various factors of environmental education namely environmental awareness and environmental attitude of teachers and environmental awareness and environmental attitude of students of secondary schools in India and Iran.

Secondary schools: Secondary schools refer to children studying in class 9th and 10th in both countries India and Iran.

Environmental Awareness: Environmental awareness is defined as the state in which and individual is environmentally cognitised regarding a number of environmental or ecological concepts and environmental problems.

In this research study, environmental awareness has been viewed from two angles: (i) as a subject and (ii) as a discipline in teaching-learning situations in classrooms.
In the long run environmental awareness moulds the individuals who are skilled and dedicated for working, individually and collectively, towards achieving and maintaining the dynamic equilibrium between quality of life and quality of environment.

**Environmental Attitude**: Allport (1935) has defined attitude as “a mental and neural state of readiness organised through experiences, exerting a directive or dynamic influence upon the individual’s response to all subject with which it is related”.

An attitude is the degree of positive or negative feelings towards the object. It includes likes and dislikes which means favourable and unfavorable inclinations towards certain objects or situation.

Thus, attitude can be defined as a determining acquired tendency which prepares a person to behave in a certain way toward a specific object or class of objects subjects to the conditions prevailing in the environment. Environmental attitude refers to the concern for the environment and the environmental problems and in addition concern for the conservation of nature and natural resources.

**Sex**: Sex in this study refers to those biological distinctions, which differentiate female from male, sex here refers to boys and girls studying in 9th and 10th standard and also men and women teachers teaching in secondary school.

**Type of School Management**: In this study type of school management refers to private and government school, selected for the purpose of data collection.

**5.5 DESIGN OF THE STUDY**

The present study was undertaken to compare the environmental awareness and environmental attitude of teachers and students of secondary schools in India and
Iran. In this chapter an attempt has been made to explain the design of the study, which includes details like locale of the study, variables of the study, tools used for the study, sample procedure and techniques employed for analysis of the data.

5.5.1 Locale of the Study

The locale of the present study was Mysore City in India and Tehran city in Iran. The city of Mysore is spread over an area of 37.37 sq km with a total population of nearly 1,000,000 persons. It is 130 kms from Bangalore, the capital of Karnataka State, South India, and situated 763 meters, above sea level. Mysore city is a cultural center in south India and is a famous tourist spot. Tehran is the capital and the largest city of Iran. Tehran is situated 1100-1700 meters above sea level and has a population of nearly 10,000,000 persons. Tehran is a city of all four seasons and is the political, economical and intellectual capital of Iran.

5.5.2 Variables of the Study

The present investigation is essentially a descriptive-cum-comparative study of environmental awareness and attitude of teachers and students of secondary schools in India and Iran.

The variables of the study:

A. Dependent Variables
   9. Environmental awareness of teachers
   10. Environmental awareness of students
   11. Environmental attitude of teachers
   12. Environmental attitude of students

B. Independent Variables
   15. Gender
   16. Age
   17. Academic qualification
   18. Teaching experience
   19. Type of school management
   20. Area of specification
   21. Class/Standard
Teachers background variables are:

- Gender, refers to: male and female
- Age is divided into four categories:
  - Below 30
  - 31-40
  - 41-50
  - 51 and above
- Length of teaching experience:
  - Below 6 years
  - 7-12 years
  - 13-18 years
  - 19-24 years
  - 25 and above year
- Academic qualification: Graduate
  - Post-graduate
- Area of specialisation: Human Science (Arts)
  - Science
- Type of schools: Government
  - Private

Students background variables are:

- Gender refers to: boy and girl
- Level of class are:
  - IX
  - X
- Type of school is:
  - Government
  - Private

5.5.3 Tools Used for the Study

In this study the following tools were used for collecting necessary research data. A list of tools used to measure different variables chosen for the study is given in table.
<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Variables measured</th>
<th>Tools used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Teachers’ Environmental Awareness</td>
<td>“Environmental Awareness Test (EAT)” developed by Shabina Jinaraja (1999)</td>
</tr>
<tr>
<td>2.</td>
<td>Teachers’ Environmental Attitude</td>
<td>“Taj Environmental Attitude Scale (TEAS)” developed by Haseen Taj (2001)</td>
</tr>
<tr>
<td>3.</td>
<td>Students’ Environmental Awareness</td>
<td>“Environmental Awareness Ability Measure (EAAM)” developed by Praveen Kumar Jha (1998)</td>
</tr>
<tr>
<td>4.</td>
<td>Students’ Environmental Attitude</td>
<td>“Taj Environmental Attitude Scale (TEAS)” developed by Haseen Taj (2001)</td>
</tr>
</tbody>
</table>

These questionnaires developed originally in English were translated by the Investigator into the Persian language for students and teachers in Iran. Initially, the Persian version was administered as a pre-test to 50 boy and 50 girl Iranian students also to 50 male and 50 female Iranian teachers to find out the suitability of the scales. With a few minor revisions, main study was continued based on the suggestions given by the students and teachers of pre-test.

### 5.5.4 Sample

The sample for the present study was chosen in the following three ways.

7. Selection of schools
8. Selection of teachers
9. Selection of students
5.5.4.1 Selection of schools

**India:** In India, Mysore city is the place chosen for the purpose of collecting data. As per the data available, there are 120 secondary schools in Mysore city. Forty-six schools were selected for the research work using simple random sampling technique.

**Iran:** In Iran, Tehran city is the place chosen for the purpose of collecting data. As per the data available, there are 1200 secondary schools in Tehran city. Fifty-seven schools were selected for the research using stratified random sampling technique.

The details of the distribution of schools selected for the study are given in the table.

<table>
<thead>
<tr>
<th>School</th>
<th>India</th>
<th>Iran</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>Number</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>23.9</td>
<td>59.6</td>
</tr>
<tr>
<td>Private</td>
<td>Number</td>
<td>35</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>76.1</td>
<td>40.4</td>
</tr>
<tr>
<td>Total</td>
<td>Number</td>
<td>46</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

5.5.4.2 Selection of teachers

In order to collect data about teachers’ environmental awareness and attitude, it was decided to select 520 teachers using simple random sampling technique from the selected 46 schools in Mysore city of India. Similarly 520 teachers were selected using stratified random sampling technique from 57 schools in Tehran city of Iran. Even though, 1040 questionnaire (520 in Mysore city and 520 in Tehran city) were given to selected teachers, the investigator could get only 494 questionnaires from India and 510 from Iran. Thus the size of effective sample was 1004 secondary school teachers from 103 schools in both the countries.
### Distribution of teachers selected for the study based on gender and country

<table>
<thead>
<tr>
<th>Teachers</th>
<th>India</th>
<th>Iran</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>250</td>
<td>255</td>
<td>505</td>
</tr>
<tr>
<td>%</td>
<td>50.6</td>
<td>50.0</td>
<td>50.3</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>244</td>
<td>255</td>
<td>499</td>
</tr>
<tr>
<td>%</td>
<td>49.4</td>
<td>50.0</td>
<td>49.7</td>
</tr>
<tr>
<td>Total</td>
<td>Number 494</td>
<td>510</td>
<td>1004</td>
</tr>
<tr>
<td>%</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### 5.5.4.3 Selection of students

In order to collect data about students’ environmental awareness and attitude, it was decided to select 500 students using simple random sampling technique from the selected 46 schools in Mysore city of India. Similarly 500 students were selected using stratified random sampling technique from 57 schools in Tehran city of Iran. Even though, 1040 questionnaire (520 in Mysore city and 520 in Tehran city) were given to selected students, the investigator could get only 500 questionnaire from India and 491 from Iran. Thus the size of effective sample was 991 secondary school students from 103 schools in both the countries.

### Distribution of students selected for the study based on sex and country

<table>
<thead>
<tr>
<th>Students</th>
<th>India</th>
<th>Iran</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>250</td>
<td>226</td>
<td>476</td>
</tr>
<tr>
<td>%</td>
<td>50.0</td>
<td>46.0</td>
<td>48.0</td>
</tr>
<tr>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>250</td>
<td>265</td>
<td>515</td>
</tr>
<tr>
<td>%</td>
<td>50.0</td>
<td>54.0</td>
<td>52.0</td>
</tr>
<tr>
<td>Total</td>
<td>Number 500</td>
<td>491</td>
<td>991</td>
</tr>
<tr>
<td>%</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### 5.5.5 Procedure

The data with respect to different variables of the study were collected using appropriate tools. In India, the Investigator personally visited all the selected schools and the teachers and students were selected as described above (section 4). Then
teachers and students were met individually for explaining the purpose of the study and were instructed how to respond to different tools namely Environmental Awareness Test (EAT) and Taj Environmental Attitude Scale (TEAS) as rated by teachers, Environmental Awareness Ability Measure (EAAM) and Taj Environmental Attitude Scale (TEAS) as rated by students. Further clarifications were offered on the questions/doubts raised by them and they were requested to cooperate with the Investigator for successful completion of the research. The same procedure has been done in Iran.

5.5.6 Techniques employed for analysis of the data

The data collected was analysed using the following statistical techniques.

5. Descriptive Statistics like Mean and Standard Deviation

6. Analysis of Variance (ANOVA), Correlation and chi-square ($\chi^2$)

5.6 THE FINDINGS OF THE STUDY

The following are the findings of the study.

1. Gender and Environmental Awareness of Teachers

The present study reveals that there is no significant difference between male and female teachers in their overall environmental awareness. However it was found that there is a significant difference between male and female teachers in the following three subfactors of environmental awareness. In the subfactor of environmental awareness (definition of environment and objectives of environmental education) male teachers scored significantly higher than female teachers. Whereas in other subfactors namely ‘Biodiversity’ and ‘Energy’ female teachers scored significantly higher in the environmental awareness than male teachers.
It may be concluded that in this study gender has no influence on environmental awareness of teachers in both the countries (India and Iran).

2. Type of School and Environmental Awareness of Teachers

The present study reveals that there is a significant difference between government and private schools on four subfactors of teachers’ environmental awareness, namely, ‘Biodiversity’, ‘Energy’, ‘Pollution’ and ‘Environmental Issues’ in private school teachers scored significantly higher than government school teachers.

It may be concluded that in both the countries type of school management has influence on environmental awareness of teachers. Indian private school teachers shows better awareness about their environment than government school teachers whereas Iranian government school teachers shows better awareness towards environment than private school teachers.

3. Age and Environmental Awareness of Teachers

The present study reveals that there is no significant difference in the overall environmental awareness of teachers with different age groups. However it was found that there is a significant difference among teachers in the following two subfactors of environmental awareness like ‘Definition and objectives of environmental education’ and ‘Environmental issues’. Teachers who are below 30 years of age have showed higher environmental awareness compared to other teachers. In other subfactors of environmental awareness all teachers were equal in their scores.

It may be concluded that in this study age has no influence on environmental awareness of teachers in both the countries.
4. Academic Qualification and Environmental Awareness of Teachers

The present study reveals that there is a significant difference in the overall environmental awareness of teachers with different academic qualification. However, it was found that there is no significant difference among teachers with different academic qualification in many subfactors of their awareness namely, ‘Definition and objectives of environmental education’, ‘Natural resource’, ‘Biodiversity’, ‘Energy’ and ‘Pollution’.

It may be concluded that in this study the academic qualification has influence on environmental awareness of teachers in both the countries, teachers with master degrees have better awareness about their environment than others.

5. Teaching Experience and Environmental Awareness of Teachers

The present study reveals that there is no significant difference between teachers with different lengths of teaching experience in four subfactors of environmental awareness, namely, ‘Natural resource’, ‘Biodiversity’, ‘Energy’ and ‘Pollution’. Only teachers with below 12 years experience of teaching, scored significantly higher in two subfactors of environmental awareness, i.e. ‘Definition and objectives environmental education’ and ‘Environmental issues’ than other teachers.

It may be concluded that in this study lengths of teaching experience has no influence on teachers’ environmental awareness in both countries.

6. Subject Specialisation and Environmental Awareness of Teachers

The present study reveals that there is a significant difference between arts and science teachers in all the subfactors of environmental awareness, namely ‘Definition and objectives of environmental education’, ‘Natural resource’, ‘Biodiversity’,
‘Energy’, ‘Pollution’ and ‘Environmental issues’. Teachers with science area were rated as better than the arts teachers.

It may be concluded that in this study there exists a positive influence between Arts and Science teachers in their environmental awareness. In both countries science teachers exhibited better awareness towards environment than art teachers.

7. Level of Environmental Awareness of Teachers in Mysore and Tehran

The finding of this study reveals that there is a significant difference in the level of environmental awareness of teachers in India and Iran. It was found that nearly 50 per cent of Indian teachers and more than 70 per cent of Iranian teachers exhibited overage level of environmental awareness. In other words in both the countries, majority of teachers have average level of environmental awareness. Also, the number of Indian teachers with high level of environmental awareness (42.50 per cent) is more than their counterparts in Iran (28 per cent).

8. Gender and Environmental Attitude of Teachers

The present study reveals that in four subfactors like ‘Health and hygiene’ (F = 5.008, p < 0.025), ‘Polluters’ (F = 29.044, p < 0.000), ‘Population explosion’ (F = 39.399, p < 0.000) and ‘Environmental concern’ (F = 41.269, p < 0.000), there is a significant difference between male and female teachers. In four subfactors namely ‘Health and hygiene’, ‘Pollutes’, ‘Population explosion’ and ‘Environmental concern’ female teachers scored significantly higher than male teachers. However, in other subfactors of environmental attitude both male and female teachers scored almost equally.
It may be concluded that in this study gender has influence on environmental attitude of teachers. In both the countries female teachers shown better attitude than males towards environment.

9. Type of School and Environmental Attitude of Teachers

The present study reveals that there is a significant difference between government and private school teachers. Only on one subfactor of teachers’ environmental attitude namely, ‘Population explosion’ (F = 1.106, p < 0.019). In private schools, teachers scored significantly higher attitude on ‘Population explosion’ compared with government school teachers.

It may be concluded that in both the countries type of school management has no influence on environmental attitude of teachers.

10. Age and Environmental Attitude of Teachers

The present study reveals that in three subfactors like ‘Health and hygiene’ (F = 4.660, p < 0.003), ‘Forests’ (F = 4.100, p < 0.007) and ‘Population explosion’ (F = 4.479, p < 0.004), there was a significant difference between age groups teachers. Teachers who are 41-50 years of age have higher environmental attitude compared to other teachers with respect to ‘Health and hygiene’, ‘Forests’ and ‘Population explosion’. In other subfactors of environmental attitude all teachers scored equal, which are statistically insignificant.

It may be concluded that in this study age has no influence on environmental attitude of teachers in both the countries.
11. Academic Qualification and Environmental Attitude of Teachers

The present study reveals that there is a significant difference between teachers with different academic qualification in four subfactors namely ‘Wild life’ (F = 5.686, p < 0.017), ‘Forests’ (F = 8.922, p < 0.003), ‘Polluters’ (F = 7.894, p < 0.005) and ‘Environmental concern’ (F = 15.670, p < 0.000) teachers rated with postgraduate degree as better than with other educational qualifications.

It may be concluded that in this study academic qualification has influence on environmental attitude of teachers. In both the countries teachers with master degrees have better attitude about their environment than others.

12. Teaching Experience and Environmental Attitude of Teachers

The present study reveals that there is no significant difference between teachers with different lengths of teaching experience in four subfactors of environmental attitude. Only teachers with 19-24 years experience of teaching scores significantly higher in two subfactors of environmental attitude, i.e. ‘Health and hygiene’ (F = 3.143, p < 0.014) and ‘Population explosion’ (F = 2.824, p < 0.024).

It may be concluded that in this study lengths of teaching experience has no influence on teachers’ environmental attitude in both countries.

13. Subject Specialisation and Environmental Attitude

The present study reveals that there is a significant difference between arts and science teachers in three subfactors of environmental attitude like ‘Wild life’ (F = 7.071, p < 0.008), ‘Forests’ (F = 8.013, p < 0.005) and ‘Polluters’ (F = 4.939, p < 0.026) Indian teachers with science area were rated high than their counterparts in Iran.
It may be concluded that in this study arts and science teachers differ in their environmental attitude. In both the countries science teachers exhibited better attitude towards environment than arts teachers.

14. Level of Environmental Attitude of Teachers in Mysore and Tehran

The finding of this study reveals that there is a significant difference between two countries in terms of level of teachers’ environmental attitude. The study found that nearly 35 per cent of Indian teachers and 48 per cent of Iranian teachers exhibited average level of environmental attitude. But, the number of Indian teachers with high level of environmental attitude (62.20 per cent) is more than their counterparts in Iran (52.20 per cent).

15. Relationship between subfactors of Teachers' Environmental Awareness and Environmental Attitude

The present study reveals that there is a significant relationship between all subfactors of teachers’ environmental awareness and all subfactors of teachers’ environmental attitude in both the countries.

It may be concluded that in this study there is a relationship between environmental awareness and environmental attitude of teachers in both the countries. It shows that the degree of relationship between environmental awareness and environmental attitude is not the same for teachers in India and Iran. A closer observation of the estimated values of ‘r’ shows that the relationship is more significant in the case of Indian teachers than in the case of Iranian teachers.
16. Gender and Environmental Awareness of Students

The present study reveals that there is no significant difference between boys and girls in their overall environmental awareness. However it was found that there is a significant difference between boy and girl students in two subfactors of environmental awareness. In subfactors like ‘Energy conservation’ (F = 6.066, p < 0.014), boy students scored significantly higher than girl students whereas in ‘Conservation of human health’ (F = 4.253, p < 0.039) girl students scored significantly higher than counterparts.

It may be concluded that in this study gender has no influence on environmental awareness of students in both the countries (India and Iran).

17. Type of School and Environmental Awareness of Teachers

The present study reveals that there is a significant difference between government and private schools on all the subfactors of students’ environmental awareness, namely, ‘Cause of pollution’ (F = 10.373, p < 0.001), ‘Conservation of soil, forest, air and etc.’ (F = 6.020, p < 0.014), ‘Energy conservation’ (F = 9.936, p < 0.002), ‘Conservation of human health’ (F = 9.858, p < 0.002) and ‘Conservation of wild life and animal husbandry’ (F = 9.579, p < 0.002). From the statistical information it is evident that private school students scored significantly higher than government school students.

It may be concluded that in both the countries type of school management has influence on environmental awareness of students. Iranian government school students show better awareness towards environment than private school students.
whereas Indian private school students show better awareness towards environment than government school students.

18. Class/Standard and Environmental Awareness of Students

The result of this study indicate that in the overall comparison there is a significant difference between IX and X class students in their environmental awareness. However it is observed that in three subfactors of environmental awareness, there is no significant difference between class IX and X students in their environmental awareness in two countries. Only students of X class in Iran scored significantly higher in two subfactors of environmental awareness namely ‘Conservation of soil, forest, air and etc.’ (F = 11.946, p < 0.001) and ‘Conservation of human health’ (F = 141.786, p < 0.000) than their counterparts.

It may be concluded that students studying in class IX and X show difference in their environmental awareness. In both the countries students in X class/standard exhibited better awareness towards environment than students in IX class standard.

19. Level of Environmental Awareness of Students in Mysore and Tehran

The finding of this study reveals that there is a significant difference in the level of environmental awareness of students in India and Iran. The table 53 clearly indicates that in ‘Average category’ Indian students scored 44% compared to Iranian students whose percentage is 14.9. As far as ‘High category’ Iranian students have scored 85.1 per cent which is really high compared to Indian students whose percentage is 56.
20. Gender and Environmental Attitude of Students

The present study reveals that there is a significant difference between boy and girl students in some subfactors of environmental attitude. In subfactors like ‘Wild life’ (F = 14.055, p < 0.000), ‘Polluters’ (F = 5.112, p < 0.024), ‘Population explosion’ (F = 21.933, p < 0.000) and ‘Environmental concern’ (F = 26.917, p < 0.000) girl students significantly higher boy students. In other subfactors of environmental attitude both boy and girl students scored almost equally.

It may be concluded that in this study gender has influence on environmental attitude of students. In both the countries girl students showed better attitude than boys towards environment.

21. Type of School and Environmental Attitude of Students

The present study reveals that there is a significant difference between government and private schools on four subfactors of students’ environmental attitude, namely, ‘Health and hygiene’ (F = 7.856, p < 0.005), ‘Polluters’ (F = 11.952, p < 0.001), ‘Population explosion’ (F = 6.876, p < 0.009) and ‘Environmental concern’ (F = 13.077, p < 0.000), in private school students scored significantly higher than government school students.

It may be concluded that in both the countries type of school management has influence on environmental attitude of students. Iranian government school students show better attitude towards environment than private school students whereas Indian private school students show better attitude towards environment than government school students.
22. Class/Standard and Environmental Attitude of Students

The result of this study indicate that in the overall comparison there is a significant difference between IX and X class students in their environmental attitude. The present study reveals that there is no significant difference between IX and X class students in four subfactors of environmental attitude. Only X class students scored significantly higher in two subfactors of environmental attitude, i.e. ‘Population explosion’ (F = 8.713, p < 0.003) and ‘Environmental concern’ (F = 6.838, p < 0.000) than their counterparts in Iran.

It may be concluded that students of class (IX and X) have shown a difference in their environmental attitude. In both the countries students studying in X class exhibited favourable attitude towards environment than IX class students.

23. Level of Environmental Attitude of Students in Mysore and Tehran

The finding of this study reveals that there is a significant difference in the level of environmental attitude of students in India and Iran. In this study it was found that there is a significant difference between two countries in terms of level of students’ environmental attitude. The study found that 57 per cent of Indian students and 37 per cent of Iranian students exhibited average level of environmental attitude. But, the number of Iranian students with high level of environmental attitude (62.70 per cent) is more than their counterparts in India (43.20 per cent).

24. Relationship between subfactors of students environmental awareness and environmental attitude

The present study reveals that there is a relationship between environmental awareness and environmental attitude of students in both the countries. It shows that the degree of relationship between environmental awareness and environmental
attitude is not the same for students in India and Iran. A closer observation of the estimated values of ‘r’ shows that the relationship is more marked in the case of Indian students than in the case of Iranian students.

5.7 IMPLICATIONS OF THE STUDY

The main objective of this study was to compare the environmental awareness and environmental attitude of teachers and students of secondary schools in India and Iran. On the basis of the findings of the study, the educational planners and administrators in the both countries may draw up several schemes to improve programme of environmental education in secondary schools.

- Result related to environmental awareness of teachers reveal that gender, age and lengths of teaching experience, as background variables have no effect on environmental awareness of Indian and Iranian teachers. It was found that variables like type of school, academic qualification and subject specialisation have effect on some subfactors of teachers’ environmental awareness in both countries. This implies that by proper orientation to environmental education should be primarily taken up by the teacher-training institutions through mass media, lectures, workshops and first hand experiences.

- Also in both the countries, majority of teachers selected for the study exhibited average level of environmental awareness. This finding of the study implies that effective measures be taken to raise the level of environmental awareness. The problem of teachers’ environmental awareness is intimately related with the level
of teachers knowledge and awareness. There is a need to impart environmental education as a part of teachers training curriculum.

- Results related to environmental attitude of teachers reveal that type of school, age and lengths of teaching experience as background variables have no effect on environmental attitude of Indian and Iranian teachers. However it was found that variables like gender, academic qualification and subject specialisation have effect on some subfactors of teachers’ environmental attitude in both countries. Therefore, it would be appropriate to encourage teachers to improve their academic qualification.

- Findings of this study reveal that more than 62 percent of Indian teachers and 52 percent of Iranian teachers have high level of environmental attitude. This finding of the study implies that there is a need to impart environmental education as a part of teachers training curriculum.

- All these findings show that there is a greater need to train secondary school teachers on proper lines to make them more aware towards environment. In this direction educational planners should come out with appropriate inservice education programmes for secondary school teachers.

- Results related to students’ environmental awareness reveal that gender as background variable has no effect on environmental awareness of Indian and Iranian students. However, it was found that variables like type of school, different class have effect on some dimensions of students’ environmental awareness.
Therefore, this implies that Government secondary schools should introduce environmental education as one of the subject in the curriculum.

- Findings of this study reveal that more than 85 percent of Iranian students and 56 percent of Indian students have high level of environmental awareness. This finding of the study reveals that there is a need to impart environmental education as a part of students' curriculum.

- Results of the study show that gender, type of school and different class have effect on some subfactors of students’ environmental attitude. By creating awareness among secondary school students towards environmental issues like pollution, conservation of nature and natural resources, judicious use of resources especially the non-renewable resources, hazards can be stopped at the source only.

Further it is sure that the students who are eventually aware will continue to have the same concern for the mother earth. They will be so educated that they will atleast have a check on these national issues if not able to eradicate. In this study we have seen the attitude towards environment of the secondary school students. Therefore school curriculum should contain environmental science as one of the compulsory subject, and it is better to teach it outside the classroom than within the four walls, to have first hand experience of the various aspects of nature.

Students learn better through visits to forest department, nurseries, gardens, parks, health units, water supply boards and pollution control boards.

We can create awareness through curricular and co-curricular activities like discussion, surveys, skills, role plays, quiz, nature games, dramas, field trips,
formation of school clubs, use of audio visual aids, play an important role in
developing positive attitude towards environmental education. Observing important
days like World Health Day (April 7), Earth Day (April 22), World Environment Day
(June 5) and Hiroshima Day (August 6) will really help a classroom teacher make
teaching more effective and joyful. All these will develop positive attitudes regarding
environment and finally save miracle planet — our mother earth from hazards by
leading eco-friendly life. As the students grow the attitudes will be positive towards
environment, which is the ultimate goal of all environmental education.

5.8 SUGGESTIONS

Keeping in mind the findings of the study, the following suggestions have
been offered for the improvement of environmental awareness and environmental
attitude of teachers and students in both the countries India and Iran. It is hoped that
state and local policy makers, superintendents and school administrators will use
these suggestions to initiate action that will enhance the environmental awareness and
environmental attitude in India and Iran.

- Teachers can play an important role in educating their students about environment
  which is possible only when the teachers themselves have the necessary level of
  environmental awareness and environmental attitude, for this purpose, the
  Government should introduce and enrich environmental education programmes in
  both inservice and preservice teacher education programmes.

- The teacher education training centers and inservice education programmes should
device new methods and techniques of teaching for increasing the level of
teachers’ environmental awareness and environmental attitude in both the countries.

- Various co-curricular activities in schools may be encouraged to help in developing students’ environmental awareness and environmental attitude.
- Environmental education should be introduced in primary and secondary school curricula, in a maximum number of subjects.
- Environmental training should be multidisciplinary focusing on interaction between environmental phenomenon and human activity.
- The young children have great curiosity about their surroundings. They possess great love for nature and want to understand myths and mysteries of nature. Therefore, at this stage stress should laid on developing an emotional tie with nature. Method of teaching should be used as to cultivate love for nature.
- Co-curricular activities like scouting is part of school curriculum. Volunteers can make attempts to promote environmental awareness and environmental attitude through several activities like plays, songs, talking with peoples, tree plantation and maintenance of healthy environment
- The teacher plays an important role in shaping and moulding the habits, tastes manners and good character of the children. Therefore, to gear up environmental awareness and environmental attitude programme, it is essential that teachers should have sufficient knowledge of environmental education.
5.9 SUGGESTIONS FOR FURTHER RESEARCH

1. The present investigation is restricted to study environmental awareness and environmental attitude of teachers and students of secondary school in both countries. Therefore, a comparative study of teachers and students perceptions about environmental education programme in India and Iran could be taken up.

2. A comparative study of academic achievement in relation of secondary school educational programmes in India and Iran may be taken up.

3. A comparative study of environmental awareness and environmental attitude of teachers and students in rural and urban areas may be undertaken.

4. A comparative study may be conducted to find out the relationship between environmental education and sustainable development in both countries.

5. A comparative role of NGOs in promoting non-formal environmental education in both countries.