

6.1 Discussion of the Results:

This chapter deals with the results of the obtained data, as already presented in Chapter IV. Implications and limitations of the study, recommendations, suggestions and conclusions drawn from the findings are also given.

The findings revealed that the level of environmental awareness of the higher secondary students was good. The findings are in accord with the findings of Pareek, Ashok and Kumar (1986) whose study revealed that, of the 1000 students selected for the study, 60 percent of the students were well-versed with their surroundings and had good to excellent knowledge about various environmental issues. Synrem (1999), in a study of environmental awareness and attitude towards environmental education among the college students in Greater Shillong found that the level of environmental awareness of the students was good. The findings of the present study also agree with the findings of Lalchharliani (2004) who found that the environmental pollution awareness level of the college students in Aizawl district of Mizoram was good.

The environmental awareness level of both the male students and the female students were good. It was found that the male students had higher mean score than the female students. This study found no significant difference between the male students and the female higher secondary school students. The null hypothesis that states that there is no significant difference between male and
female higher secondary students was retained. The findings are in agreement with the findings of Pareek, Ashok and Kumar (1996). They found no significant differences between the boy and the girl secondary school students in the cognitive level of environmental awareness. Gakhar and Kalra (1998) found that variable of sex differences did not account for significant differences on the environmental awareness of senior secondary school students. Synrem (1999) did not find significant differences between the male and the female college students in the level of environmental awareness. Lalchharliani (2004) found no significant difference between the male and the female college students. Syngkon (2005) also found no significant differences between Class IX male and female students as far as their level of environmental knowledge were concerned.

The findings however refute the findings of Shahnawaj (1990), who found significant differences in the environmental awareness between boys and girls. Astalin (2011) and Pillai (2012) also found significant differences between the male and the female higher secondary students with regard to their environmental awareness.

With regards to the different type of schools studied, it was found that the level of environmental awareness of the students studying in government schools and private-unaided schools were good. The private-aided school students had satisfactory level of environmental awareness. The level of environmental awareness of the deficit school student was also good. Among the different type
of schools, the deficit school students had the highest mean score followed by the private-unaided school students, government school students and private-aided students with the lowest mean score.

The findings of this study revealed significant differences between students studying in government schools and deficit schools; government schools and private-aided schools; deficit schools and private-aided schools; deficit schools and private-unaided schools; and private-aided schools and private-unaided schools. However, no significant difference was found between the students studying in government schools and private-unaided schools. The null hypotheses that state that there is no significant difference between higher secondary students studying in government schools and deficit schools; government schools and private-aided schools; deficit and private-aided schools; deficit and private-unaided schools and private-aided and private-unaided schools were rejected. The null hypothesis that states that there is no significant difference between the students studying in government schools and private-unaided schools was retained.

The findings of the present study refute the findings of Lalchharliani (2004) whose study revealed that government college students had higher environmental pollution awareness level than the deficit and private college students. Both studies are in agreement in that the deficit higher secondary school students and the deficit college students had higher level of environmental
awareness than the private-aided school students, private-unaided school students and the private college students. Both studies found significant differences between the students studying in deficit schools and unaided schools.

This study refutes the findings of Syngkon (2005) who found significant differences between Class IX students studying in government secondary schools and unaided secondary schools in their level of environmental knowledge. No significant difference was found in the present study between government school students and private-unaided school students. Both studies found significant difference between the students studying in government and secondary schools and deficit secondary schools. Syngkon’s study found significant difference between Class IX students studying in deficit schools and unaided schools. This is also in agreement with the findings of the present study.

The environmental awareness level of the students coming from the rural areas and the urban areas were both good. Though the urban students had higher mean score, the difference was not significant. The null hypothesis that states that there is no significant difference between higher secondary school students coming from the rural areas and the urban areas in their level of environmental awareness was therefore retained.

This study is in agreement with the studies conducted by Syngkon (2005) which found no significant difference between Class IX rural and urban secondary school students on level of environmental knowledge. It however
refutes the study done by Pareek, Ashok and Kumar (1986), Gakhar and Kalra (1998) and Pillai (2012) which found significant differences between the students coming from the rural areas and the urban areas. 

In a study of the students studying in the different streams, it was found that the level of environmental awareness of the students studying in the arts stream was satisfactory, and the level of environmental awareness of the students studying in both the science and commerce stream was good. The science students had the highest mean score followed by the commerce students and the arts students. Significant differences were found between the arts students and the science students; and between the science students and the commerce students. No significant difference was found between the arts students and the commerce students. The hypotheses that state that there is no significant difference between higher secondary school students studying in arts stream and commerce stream; science stream and commerce stream in their level of environmental awareness were therefore rejected. The hypothesis that states that there is no significant difference between higher secondary school students studying in arts stream and commerce stream was retained. 

Astalin (2011) found that science stream students had more environmental awareness in comparison to arts stream students. Pillai (2012) also found significant difference between the science group students and the arts group students in a study of environmental awareness of higher secondary school
students in Cuddalore district. Mishra (2012) found that the senior secondary science students were significantly higher in environmental awareness than the senior secondary arts students. All these studies are in accord with the findings of this study. The science students exhibited higher environmental awareness than the arts and commerce students.

The higher secondary school students studying in Aizawl district and Lunglei district were found to possess good level of environmental awareness. The students studying in Aizawl district were found to have higher mean score than the students studying in Lunglei district. But no significant difference was found between the two. The null hypothesis which states that there is no significant difference between higher secondary school students studying in Aizawl district and Lunglei district in their level of environmental awareness was therefore retained.

A comparison of environmental awareness among children of non-formal education centres of Madhya Pradesh and Maharashtra was made by Rajput, Gupta and Grewal (1982). The study revealed differences between the two groups of children studying in different geographical regions. Another study was conducted by Gopalakrishnan (1992) on impact of environmental education on primary school children of the Nilgiris, Madras and Coimbatore. The findings showed that the students of Madras scored better than students from the Nilgiris and Coimbatore. The present study refutes the findings of these two studies. The
findings of this study showed that there were no significant differences between the students studying in different geographical regions. This may be due to the fact that in this study, the students of the two districts study the same syllabus under the same board of school education which is the Mizoram Board of School Education.

The findings thus revealed that the overall level of environmental awareness of the higher secondary school students in Aizawl and Lunglei district was good. Among the different groups studied, it was found that the students studying in deficit schools with mean scores of 39.10 and the students studying in the science stream with mean scores of 38.75 had high environmental awareness level than the other groups. The private-aided students had the lowest mean score with a score of 31.07 (See Table 4.34). As Rajput, Gupta and Grewal (1982) stressed in their comparison of environmental awareness among children of non-formal education centres of Madhya Pradesh and Maharashtra, the difference in awareness score may not necessarily be due to lack of knowledge on the part of the students, but may be due to varied emphasis laid on teaching of the different subjects in which environmental contents are incorporated.

### 6.2 Implications of the Study:

Based upon the findings, the implications of the present study are:

1. No significant difference was found between the male and female students in their level of environmental awareness in the present study.
Thus, it can be concluded that gender differences does not play a role in the level of environmental awareness of the higher secondary school students.

2. It was found that students studying in deficit schools had higher environmental awareness than students studying in government, private-aided and private-unaided schools. This indicates that efforts should be made to create general awareness amongst the students studying in these schools by organizing seminars, workshops etc. for the students. The students studying in government schools were found to be higher in their level of environmental awareness than the students studying in private-aided schools. The students studying in private-unaided schools were found to possess higher environmental awareness than the students studying in private-aided schools. It implies that students studying in private-aided schools were found to be less environmentally aware than those studying in government schools and private-unaided schools. This may be attributable to the fact that students studying in private-aided schools lack the resources and facilities which are available to their counterparts. Therefore, efforts should be made to equip the libraries at these schools with books concerning environmental issues and problems so that students studying in these schools would be aware of current environmental problems. The study also implicated that there was no
significant difference found between the students studying in government and private-unaided schools.

3. The study revealed no significant differences between the students of rural areas and urban areas. It showed the environmental awareness level of the students does not differ whether they are in the urban or the rural scenario and that the students from the rural areas are equally aware of the environmental problems as the students from the urban areas.

4. The present study revealed that there existed significant differences between the arts and science students; and between the science and commerce students in regard to their environmental awareness level. But no significant difference was found between the commerce and arts students. It was found that the science students have higher level environmental awareness level than the arts and commerce students. Therefore, this indicated that efforts should be made to incorporate issues concerning environment and its related problems into the different subjects in the arts and commerce stream at the higher secondary school level.

5. It was revealed in the present study that no significant difference existed between the students studying in Aizawl district and Lunglei district. It implied that the level of environmental awareness that students possess is not linked to the geographical area in which they live.
6.3 Limitations of the Study:

The present research investigated two districts in Mizoram. Though there are some schools offering vocational courses, there are few students studying in the vocational stream. The study did not include the vocational students. The central school in Aizawl district was not included as there is only one central school which has few students. In the administration of the test care has been taken by the investigator to make the testing conditions as identical as possible. It could be pointed out that it was not possible to make the testing conditions exactly identical. During testing the students were requested to answer all the questions. Though all the test booklets were returned, not all the students completed answering the questions. Some items were left unanswered by some students. Another limitation of the study is the fact that although the environmental awareness level of the students was assessed, the attitudes of the students were not tested.

6.4 Recommendations:

In the light of the results of this study, the investigator recommends the following:

i. Steps should be taken to ensure that every student is provided opportunities to acquire the knowledge, values, attitude, commitments and skills needed to protect and improve the environment. In this regard,
issues concerning the environment have to be incorporated into not only the different subjects, but into the co-curricular activities of the school.

ii. Audio-visual aids and modern teaching aids should be adopted to help the students discover the symptoms and real causes of environmental problems and arrive at concrete strategies for environmental protection and preservation.

iii. Eco clubs could be set up in the schools so as to encourage the students to participate actively in the campaign for protection of the environment. Activities such as seminars, camps, rallies, film shows, advertisement campaigns and dramas could be organized by such clubs.

iv. Efforts should be made to acquaint the students with environmental problems. Steps may be taken in this regard by supplementing theoretical knowledge of the environment with practical knowledge by organizing field trips, nature walk and nature study so as to create awareness amongst the students regarding the environment and its different aspects.

v. The schools can work together with the NGOs and the community on environmental issues like motivating the masses for environmental protection, formulating proper waste management plan, organizing public awareness programme and coordinating a cleanliness drive, tree plantation drive etc.
6.5 Suggestions for Further Research:

In order to understand the concept and recognize the importance of the environment and environmental education, more research is needed. It is needed to address the issues concerned with the environment and its different aspects. The following are suggestions for further research:

1) The present study is confined to higher secondary school students. Studies could be undertaken to find out the level of environmental awareness of students at the elementary stage in Mizoram.

2) Studies could be conducted to find out the level of environmental awareness of higher secondary students of other districts in Mizoram other than Aizawl and Lunglei district.

3) The contents of environmental education textbooks at the secondary stage in Mizoram and its impact on the environmental awareness of the students could be studied.

4) The role of mass media in creating environmental awareness among the students in Mizoram could be studied.

5) Studies could be carried out to find out the environmental awareness level of the university students of Mizoram University.

6) The purpose of the present study is to assess the environmental awareness of the students. Studies could be conducted to find out
whether or not the students have pro-environmental attitude towards the environment.

6.6 Conclusion:

The present study was conducted to find out the level of environmental awareness amongst higher secondary school students in Aizawl district and Lunglei district of Mizoram. The overall level of environmental awareness of the students was good. It could therefore be stated that the environmental contents incorporated into the different subjects had contributed towards the awareness of the students regarding the environment and that it had positive impact on the environmental knowledge of the students. Besides the fact that the students have been exposed to various environmental issues and problems through their courses of study, the knowledge that the students had acquired may be attributed to the different mass media such as the T.V., radio, newspapers etc.

The findings revealed no significant difference in the level of environmental awareness between the male and the female students; between the students from rural and urban areas; and between the students studying in Aizawl district and Lunglei district. The science students however exhibited higher environmental awareness level than the arts and commerce students while the commerce students showed a higher mean score than the arts students although the difference was not significant. The reason for the science students having a higher environmental awareness level than the arts and science students may be
contributed to the fact that more environmental elements have been incorporated into the subjects studied by students in the science stream. The fact that the arts students had the lowest score amongst the different streams may be due the fact that the environmental issues for a long time have generally been thought of as the domain of science. It may be that in the arts stream or the commerce stream, the study of the environmental components has not been given enough importance as that given in the science stream. The students studying in deficit schools also showed higher environmental awareness level than the students studying in government, private-aided and private-unaided schools. Students studying in government schools exhibited higher environmental awareness level than students studying in private-aided schools. They also showed higher mean score than students studying in private-unaided schools; but the difference was not significant. Students studying in private-aided schools exhibited higher environmental awareness level than students studying in private-unaided schools.

It is worth mentioning that the environmental problems have become so immense that it should not be the concern of a few persons but that it is time we realize that it affects all of us. Thus, the importance of acquiring the knowledge of the environment and of inculcating pro-environmental attitudes in the students could not be stressed enough. Other than home, the school is a place where children spend most of their time. It is the duty of the educational institutions and the teachers working in it to take necessary steps in this regard.
The investigator feels that environmental education has not been given priority in the educational institutions in Mizoram. No separate environmental education textbook had been prescribed for the higher secondary school students in Mizoram although it has been introduced as a separate subject of study in the elementary stage. Again, in the elementary stage there are no trained teachers to foster the understanding and skills necessary to teach the goals of environmental education. As found in the results of the study, the overall environmental awareness of the students was good. It is clear that the students had gained some environmental knowledge from the study of the different aspects of the environment incorporated into the different subjects. The purpose should not just end in the acquisition of knowledge about the environment. The major concern should be to provide environmental knowledge and skills, to inculcate pro-environmental attitude combined with the practical applications of that knowledge. Students have to be encouraged to actively participate in the protection and improvement of the environment. We have to go beyond content-driven method and acquire a new approach to the teaching of environmental issues.

For this study, an Environmental Awareness Test (EAT) was developed. It is hoped that this test could be used to study the environmental awareness of higher secondary school students in another districts of Mizoram than those already studied.
The present study is a descriptive research that uses quantitative methods for analysis of the data obtained. Quantitative research provides good quantitative results and has proved to be valuable in the field of research. The investigator feels the need for more qualitative research which will make use of interviews and classroom observations. It is felt that such qualitative data would be able to provide information that cannot be apprehended through statistical analysis. A combination of both the methods in researches would be valued.

This study therefore has helped us in realizing the environmental awareness level of the higher secondary schools students in Aizawl and Lunglei district of Mizoram. It is anticipated that the outcome of this research work will be useful in formulating a curriculum that encompasses environmental issues, and in the planning of programmes to promote an awareness and understanding of the environment amongst the students in Mizoram.