Chapter IV

METHODOLOGY AND PROCEDURE
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4.1 INTRODUCTION:

Research is a systematic attempt to obtain answers to meaningful questions about phenomena or events through the application of scientific procedures. It is an objective, impartial, empirical and logical analysis and recording of controlled observations that may lead to the development of generalizations, principles or theories, resulting, to some extent in prediction and control of events that may be consequences or causes of specific phenomena. Research has proved to be an essential and powerful tool in leading man towards progress. According to Best and Khan (1992), ‘Research is directed towards the solution of a problem. It may attempt to answer a question or to determine the relation between two or more variables.’ A sound knowledge of research methodology is essential for carrying out a meaningful and systematic research study. Research methods are of utmost importance in a research process.

According to the research experts there are mainly three types of educational research. These are- (1) Historical Research, (2) Descriptive Research and (3) Experimental Research. Historical research is the application of scientific method to the description and analysis of past events. Experimental research provides a systematic and logical method for answering the queries in an experimental setting. The Descriptive research describes and interprets what is. It is concerned with conditions
or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing. It is primarily concerned with the present, although it often considers past events and influences as they relate to current conditions. The present research study comes under the second category, which tries to study, describe and interpret what exists at present. In this chapter an attempt is made to explain the design of the study, sources of data, the sample and population selected, the tools and methods employed for gathering data and the statistical procedures adopted for the analysis of data.

4.2. OBJECTIVES:

The following objectives are formulated in order to carry out the present study–

1. To study the role of teachers of the secondary schools in promoting environmental awareness among the students.

2. To assess the level of environmental awareness of the students of secondary schools.

3. To analyze the programmes/activities of the NGOs in bringing about environmental awareness among the mass people.

4. To evaluate the measures undertaken by the NGOs towards environmental protection with special reference to socio-economic aspects.
5. To study the environmental attitudes of the NGO personnel.

6. To find out the level of environmental awareness of the NGO-educated mass people.

7. To find out the link between the NGOs and secondary schools in promoting environmental awareness and protection.

8. To examine the complementary role and to suggest a model of linkage between the secondary schools and NGOs.

4.3. ASSUMPTIONS:

As per the objectives of the study the following assumptions are formulated.

1. The teachers of secondary schools play an active role in promoting environmental awareness among the students.

2. Secondary schools have developed a high level of environmental awareness of the students.

3. The present study assumes that NGOs are more inclined to undertake the environment-oriented programmes/activities for generating awareness among the common people.

4. The measures for protection of socio-economic aspects undertaken by the environment-related NGOs are sufficient.

5. The pro-environmental attitudes of the NGO personnel are high.

6. The NGO-educated mass people have developed a high level of awareness in regard to environment and its associated problems.
7. It is assumed that the secondary schools and the NGOs have developed a satisfactory link to promote environmental awareness and protection in the society.

4.4 DESIGN OF THE STUDY:

The present study of research work has been undertaken in order to find out the complementary role of formal and non-formal educational agencies in environmental awareness and protection in the society. With this purpose in view fifteen (15) secondary schools and fifteen (15) environment related Non-Government Organizations were selected from the undivided Kamrup district of Assam. Purposive technique was adopted while sample selection was done. The selection of sample includes both rural and urban backgrounds. Therefore a 50% stratified sampling was done in selection of sample.

The sources of data for the present study were of two types—primary and secondary. The primary sources were the environmental NGO personnel, the NGO-educated people, the secondary schools teachers, students from class VIII–X and the heads of the schools. The primary data were collected from these sources with the help of interview schedules and questionnaires designed for the purpose. The secondary data were collected from different sources such as Annual Report of Ministry of Environment and Forest, Directorate of
Economics and Statistics, Assam, Directories of Environmental NGOs, relevant Journals, Newspapers, Annual Reports of different NGOs etc.

The design of the framework of the present study is shown in the following way—

```
Present Study
  ↓
Descriptive Survey Method
  ↓
Purposive Sampling Technique
  ↓
Data used- Primary data
  ↓
Through Interview, Schedules, Questionnaires

Secondary data
  ↓
Directories, Journals, Books, Newspapers, Annual Reports etc.
```

4.4.1. POPULATION:

A population refers to any collection of specified group of human beings or of non-human entities such as objects, educational institutions, time units, geographical areas, prices of wheat or salaries drawn by individuals. Best (1978) states, ‘A population is any group of individual that have one or more characteristics in common, that are of interest to the researchers.’

The present study aimed at exploring the role of environmental NGOs and Secondary schools in environmental awareness and protection. Thus the population of the study comprised all the environmental NGOs of the undivided Kamrup district of Assam. Likewise all the secondary schools of the same district were considered.
as the population of the present investigation. According to Environmental NGOs in India-Directory 2004, total number of environmental NGOs in Assam is 73, and from ‘Environmental NGOs in India Directory-1994’, it was found that there are 35 environmental NGOs in Assam. The investigator consulted the latest revision of the Directory (2004) to gain the preliminary knowledge about the environment based NGOs in Assam.

4.4.2. SAMPLE:

A sample consists of a small collection from a larger aggregate about which the study is to be made. As it is not possible to examine all the population in a planned way, so a small part of it is to be found out to examine and draw facts from it. A good sample must be as nearly representative of the entire population as possible and ideally it must provide the whole of the information about the population from which the sample has been drawn.

For carrying out the present study fifteen (15) environment related NGOs and fifteen (15) secondary schools were selected from the undivided Kamrup district of Assam as the sample of study. Care has been taken by the investigator in selecting the sample so that it must be representative as well as adequate. The number of sample strength for the present study is shown through the table 4.1.
### Table 4.1.

**Distribution of Sample of the Present Study**

<table>
<thead>
<tr>
<th>Name</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment-related NGOs</td>
<td>15</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>15</td>
</tr>
<tr>
<td>NGO Personnel</td>
<td>45</td>
</tr>
<tr>
<td>Secondary School Students</td>
<td>300 + 270 = 570</td>
</tr>
<tr>
<td>Secondary School Teachers</td>
<td>45</td>
</tr>
<tr>
<td>NGO-educated Common People</td>
<td>150</td>
</tr>
<tr>
<td>Number of Head of Secondary Schools</td>
<td>15</td>
</tr>
</tbody>
</table>

4.5. **SAMPLE SELECTION:**

4.5.1. **PURPOSIVE SAMPLING:**

Necessary care has been taken by the investigator in selecting an appropriate sampling technique in order to get rid of any kind of basis or inadequacy for carrying out the present study. As the sample under the present investigation is not distributed universally so after thorough consultation with the concerned expert it was decided to adopt purposive sampling technique for selecting the required sample for the present study.

Purposive sampling can be considered as an important form of sampling in which the researcher selects a particular group or category from the larger population to constitute the sample because this category is considered to mirror the whole with reference to the characteristic in question. Purposive sampling is useful where we want the sample to consist of not very large number of cases. On the basis of purposive
sampling procedure the environment-related NGOs and secondary schools were selected as the sample for the present investigation.

4.5.2. SELECTION OF THE NGOs AND SECONDARY SCHOOLS:

Prior to the final selection of the NGOs and secondary schools for collection of data, efforts were made to have an adequate list of universe of such NGOs of undivided Kamrup district which were involved in environmental areas and also carrying out activities or programmes in order to empower the mass people in the environmental issues. As there is a great variation among the NGOs in regard to size, type and funding resources etc. so an earnest attempt was made to be careful while selecting the environmental NGOs as sample for the present study. For this purpose the investigator consulted several Directories, which had the name of the NGOs, their addresses and name of contact persons, visited the Society Registration Office, Housefed Complex, Guwahati. After collecting the complete list of such NGOs, the investigator made contact with the Presidents/Secretaries of the NGOs by sending a letter. The letter consists of a few items, which seek some basic information such as year of establishment, scope of the NGOs, area of operation etc. The investigator also visited personally some NGOs offices and their working fields to have a first hand knowledge about the functions and activities of the NGOs. After getting proper responses from the NGOs,
the investigator selected the sample keeping in mind the proper representativeness and adequacy of them. The NGOs, which have not completed three (3) years of their existence, were excluded from the present study.

After the final selection of the NGOs was done the secondary schools were selected from the same areas or from the areas of operation of the NGOs. The NGO-related schools or those schools, which have done environmental programmes or activities with the sampled NGOs of the present study.

4.6. TOOLS USED:

For conducting any type of research the investigator must take help of some instruments or devices, which are popularly known as Tools. The selection of suitable tools is of vital importance for a successful research. In descriptive research the widely used tools are questionnaire, interview schedule, observation sheet etc. To use these devices as data gathering tools in the educational and social science researches there must be some necessary and desirable qualities of them. These are –

a) Reliability and Validity

b) Interesting and Availability

c) Economical
d) Easy in Administration.

For the present study the investigator took help of two types of tools—

1) Self-developed and 2) Standardized Tools.

4.6.1. SELF-DEVELOPED TOOLS:

4.6.1.i Interview Schedule for the Secondary Schools Teachers

4.6.1.ii Environmental Awareness Questionnaire for the Secondary School Students.

4.6.1.iii Interview schedule for the NGO Presidents/Secretaries.

4.6.1.iv Opinionnaire for the Head of Secondary Schools.

The guiding factors that stated earlier (above) were well kept in mind by the investigator while constructing the schedules and questionnaire.

4.6.1.i Development of Interview Schedule for the Secondary School Teacher:

This tool was developed to assess the role of secondary school teachers in promoting environmental awareness and protection among the students and in the society. The schedule was prepared with ten (10) numbers of closed-form and fourteen (14) numbers of open-ended questions in the semi-structured form. The following steps were used while constructing schedule for the secondary school teachers.
1. The available conceptual and research literature related to teachers' activities and perception towards promoting environmental awareness among the students.

2. Informal visits to secondary schools and interactions with the teachers.

3. Review of prescribed books on Environmental Study for classes VIII, IX and X.

4. Preparation of preliminary draft with 37 open-ended questions.

5. Seeking opinions and comments from Ph.D. guide and other three experts of the field.

6. After necessary modifications the schedule is prepared in both closed and open form. The closed-form questions are included in order to reveal the attitude of the teachers towards teaching of Environmental education.

7. Application of the schedule on 10 teachers for pilot study.

After getting totally negative responses from the teachers in 3 questions, these were dropped and finally 24 questions were selected for the present study.

4.6.1.ii Development of the Environment Awareness Questionnaire for the Secondary School Students:

Environment Awareness Questionnaire was administered among the students of secondary schools in order to assess their level of
environment awareness. The preparation and development of the draft questionnaire involves the following steps–

1. Study of available conceptual literature related to environment awareness questionnaire.

2. Different significant aspects or dimensions on the concept of environment and its problems were identified from the school curriculum and school activities.

3. Preparation of the 1st draft of environment awareness questionnaire with a total number of 60 items out of which 30 items were favourable and 30 items were unfavourable. Items are prepared in a multiple choice method offering 4 (four) viz. a, b, c, and d alternative answers.

4. The draft was then subjected to five (5) experts’ judgments. Based on the opinions of the experts some items were dropped along with some necessary modification.

5. Finally 47 items were selected for the final draft of environment awareness questionnaire.

6. Scoring: One (1) mark will be awarded for every correct answer and Zero (0) for the incorrect one. The total scores of the students will be ranged between 0–47. The awareness levels of the secondary students will be classified into three.
viz—High, Average and Low on the basis of the scores shown through the table 4.2.

Table 4.2.
Classification of Scores in Three Levels of the Secondary School Students.

<table>
<thead>
<tr>
<th>Level</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>High</td>
<td>32-47</td>
</tr>
<tr>
<td>Average</td>
<td>12-31</td>
</tr>
<tr>
<td>Low</td>
<td>0-11</td>
</tr>
</tbody>
</table>

4.6.1.ii.a. Try out of the Preliminary Draft of Environment Awareness Questionnaire:

The 1st draft of the Environment Awareness Questionnaire was administered among 160 secondary schools students from four (two NGO linked, two Non-NGO linked schools) secondary schools for the purpose of its try out. With due permission from the headmasters/principals, the investigator conducted the try out test on 40 students from each school. The sample of try out test consisted of students from class VIII to class X. Good rapport was made with the students and proper sitting arrangements were also made for them. The questionnaire was then distributed among the students with all necessary instructions. The students were provided ample time for answering the questionnaire. They were also requested to read the instructions printed on the front page of the questionnaire. The answered sheets were then subjected to analysis with the prepared scoring key.
4.6.1.ii.b. Reliability and Validity:

The reliability of the Environment Awareness Test, the Test-Retest and Spilt-half methods were used. For the Test-Retest method 100 students of whom 50 male and 50 female students were selected as sample from three different secondary schools of undivided Kamrup district. The gap period of Test-Retest was one month. The results yielded by these two types of methods were .74, .72 respectively.

The content and face validity of the awareness test was determined by obtaining satisfactory comments from the 5 experts in the field & teachers concerned. Items, which had highest agreement, and not less than 75% of agreement, were selected.

4.6.1.iii. Development of Interview Schedule for the NGO Presidents/Secretaries:

In constructing the interview schedule for the present study the following steps were followed by the investigator—

1) Informal visits to and interactions with the NGOs and NGO staff.

2) Review of literature on NGOs activities in the area of environment.

3) Preparation of preliminary draft of interview schedule with forty (40) questions.
4) The questions items were checked, edited and subjected to three (3) experts in the field including the Ph.D. guide.

5) The schedule was applied to a few environmental NGOs Presidents/Secretaries as a pre-pilot study. After having done pre-pilot study a slight modification was made with the schedule.

6) After getting the opinion from the guide and experts and administration of the interview schedule in the pre-pilot study it was then applied for pilot study. Pilot study was done on Six (6) NGOs.

7) The schedule contains 10 closed-form questions for eliciting NGO-Heads’ opinion regarding NGO-School link and the rest are open-ended questions relating to NGO’s role in environmental awareness and protection.

8) Scoring: Every positive response of the respondent NGOs in regard to awareness programmes/activities and protective measures carries 1(one) mark and 0 (zero) for the negative one.

After the pilot study was done some statements were found to be out of coverage of a few NGO activities. Therefore to maintain the uniformity of the schedule five items were excluded from the final schedule. Finally 35 questions were selected for the interview schedule.
The schedule was formulated on the basis of various areas of activities covered by the NGOs in regard to environmental awareness and protection.

4.6.1.iv. Preparation of Opinionnaire for the Head of the Secondary Schools:

1. Informal talks with the school heads during the pre-pilot period.

2. Collecting information from newspapers, journals etc regarding the joint drive of NGO-schools in environmental areas.

3. Preparation of 1st draft of opinionnaire with 15 questions focusing on the link between the school and the NGOs.

4. Subjected to modification and judgment of the draft by 5 experts.

5. On the basis of experts judgments 5 questions were excluded and finally 10 questions were selected in a closed form.

4.6.2. STANDARDIZED TOOLS:

For conducting the present study of research work the investigator followed two types of standardized tools. These are –

4.6.2.i Taj Environmental Attitude Scale (2001) developed by Dr. Haseen Taj (TEAS, English version).
4.6.2.ii Environment Awareness Ability Measure (2004; Questionnaire) by Dr. Praveen Kr. Jha. (EAAM, English version)

4.6.2.i Taj Environmental Attitude Scale (TEAS):

The TEAS was developed by Dr (Mrs.) Haseen Taj (2001). The scale consists of 61 items covering six areas. The investigator applied the tool in order to know the pro-environmental attitudes of the NGO personnel. The rationale behind the application of this scale is that it is the attitudes of the concerned people that ultimately determine the role of their respective institutions or organizations and in this regard the TEAS is an appropriate tool to be applied for the present study. The easy administration and high reliability of the tool also made the investigator confident to apply the tool in regard to the measuring of attitudes of the NGO personnel. The scoring key is applied in accordance with the scoring key mentioned in the TEAS. There are 31 favourable statements and 30 unfavourable statements in the attitude Scale. The weightage of scores for each favourable item ranges from 4 (strongly agree) to 1 (strongly disagree) and in case of unfavourable items the scoring is reversed. The range of scores is from 61 to 244.

4.6.2.ii Environment Awareness Ability Measure (EAAM):

Environment Awareness Ability Measure was developed by Dr. Praveen Kumar Jha (2004), Professor, P.G. Dept. of Psychology, T. P
College, Madhipura, Bihar. This tool was used to find out the level of awareness of the NGO-educated common people. There are 51 items in EAAM and the dimensions on which the scale was based are—

a) Causes of pollution

b) Conservation of soil, forest, air etc.

c) Energy Conservation

d) Conservation of human health

e) Conservation of wildlife and animal husbandry.

Out of these 51 items 8 were negatively worded. Each agreed item carries the value of 1 mark and each disagree item of zero mark but the negative items are scored inversely. For the convenience of the respondents the scale was translated into Assamese language.

The reliability of the scale was determined by Test-Retest method, Spilt-half method and K-R method and the values derived from it are .74 and .71, .61 and .84 respectively.

The validity of the EAAM was determined by co-efficient of correlation and was found to be 0.83.

The Scale was used in the present study in the sense that all the dimensions included in the scale were of great importance from the environmental awareness and education points of view. Moreover higher reliability and validity, easy administration and simple scoring
pattern of the tool made the investigator to apply it for the present study
The contents of the tool were covered by the sampled NGOs.

4.7. PROCEDURE OF DATA COLLECTION:

Data collection is essentially an important part of the research process so that the inferences, hypotheses or generalizations tentatively held may be identified as valid, verified as correct or rejected as untenable. Data for the present study were collected mainly from two sources—(i) Primary source and (ii) Secondary source.

**Sources of Primary Data**

- **Secondary Schools**
  - Headmasters/Headmistress
  - Teachers
  - Students
  - 300 from NGO-Linked Schools

- **Environment related NGOs**
  - NGO Personnel
  - NGO-educated People
  - 270 from non-NGO Linked Schools

4.7.1. DATA COLLECTION FROM THE SECONDARY SCHOOLS:

4.7.1.i. Administration of the Interview Schedule among the Secondary Schools Teachers:

Role of teachers in enhancing the environmental awareness among the students assumes much importance at the secondary stage of education. Teachers are to set themselves as the key actors in developing proper values, attitudes, knowledge, skills and evaluation capacity of the students towards every emergent issue of environment. Keeping this in
mind the investigator approached 45 teachers (3 from each school) in order to know the role played by them in developing environmental awareness among the students. The tool used for this purpose is self-developed interview schedule containing 24 questions both in closed and open-ended form.

The investigator made a formal contact with the headmaster/headmistress of the school by a letter describing the investigator’s purpose and seeking his/her consent to visit the school by the investigator. After receiving positive responses from the schools the investigator went personally to the schools and tried to establish a good rapport with the head and the other teachers of the schools. With due permission from the head of the schools the investigator interviewed three teachers from each school with the help of the self-developed semi-structured interview schedule. They were requested by the researcher to be very ease while revealing their responses to the investigator prior to the formal interview. Following the same procedure the investigator interviewed forty-five teachers from the fifteen sampled schools.

4.7.1.ii Administration of Environmental Awareness Questionnaire among the Secondary School Students:

In order to assess the environmental awareness level of the secondary schools students the investigator applied the Environment
Awareness Questionnaire in the same day that the teachers and heads of the school were interviewed. With due permission of the head of the intuitions, 20 students from each school from class VIII to class X were taken for the environmental awareness test. Proper rapport was established with the students and they were provided all the necessary verbal instructions regarding the filling up of the questionnaire. After having confirmed that they have fully understood the instructions, the investigator distributed the questionnaire among them. They were given enough time for this purpose. The investigator administered all the three hundred questionnaires following the same procedure and collected the answer sheets for necessary analysis and interpretation vide table 4.2.

As the present investigation aimed at assessing the role of secondary schools in environmental awareness levels of the secondary students and in order to ascertain the NGO-school link, the 300 (three hundred) students had to selected from the NGO-linked schools. In order to avoid the restrictions in formulation of generalization due to the influence of dependent variables, the investigator applied the same questionnaire among 270 (two hundred seventy) students from four non-NGO linked schools. Same procedure followed in the NGO-linked schools was adopted here and all the answer sheets were collected by the investigator for necessary analysis vide the same table 4.2.
4.7.1.iii Application of Opinionnaire on NGO-School Link among the Heads of the Secondary Schools:

The investigator developed rapport with the headmasters/headmistress of the sampled schools through informal interviews regarding the activities or measures adopted by the institutions for enhancing environmental awareness and protection. In order to know their opinions in regard to school-NGO link, the investigator administered the self-prepared opinionnaire among 15 heads from 15 schools with a brief instruction. The investigator herself collected all the fifteen answer sheets of the heads personally.

4.7.2. DATA COLLECTION FROM THE NGOS:

4.7.2. i Contact with the NGO Presidents/Secretaries:

At first the investigator made contact with the Presidents/Secretaries of selected NGOs by sending a formal letter. The letter consists of a few items, which state the purpose of the investigator for meeting them, the tentative time or date, consent of the NGOs heads for visiting the NGO-office by the investigator etc. After receiving positive consent from the NGO Presidents/Secretaries by postal letters and over telephone the investigator went personally to NGO-offices in the working days and established a good rapport by holding an informal discussion for 10-15 minutes with the NGO-staff members.
Application of Interview Schedule in a Focus Group Discussion:

After establishing a good rapport and pleasant introduction the investigator started the formal interview to get the requisite data and information in a focus group discussion with more than 3/4 NGO-staff members by applying the self-developed schedule. The interview schedule consists of all total 35 questions (including background information) focusing mainly on three aspects –

1. Programmes/Activities of the NGOs in environmental awareness,

2. Measures towards protection of the environment and

3. NGO-School Link in environmental issues

All the background data of the NGOs were recorded in the first sheet of the schedule.

The investigator experienced a very lively and informative interview with the NGO personnel held in a focus group discussion method. The description, information and the recorded data in support of the activities done by the NGOs were carefully listened and recorded by the investigator during the interview period. All the necessary documents, published materials like leaflets, stickers, posters, photos, newspaper-cuttings relating to the programmes done, annual planning
done so far, plans to be executed in the coming days all were examined and collected by the investigator.

4.7.2.iii Administration of Taj Environmental Attitude Scale:

The present study also aimed at evaluating the environmental attitudes of the committed NGO personnel as the positive environmental attitudes have a deep impact on the implementation of the programmes or activities of the NGOs. With this purpose in view another day was fixed in consultation with the NGO personnel and the investigator went to the same NGO offices to collect the requisite data. The investigator administered the standardized tool—TEAS developed by Dr. Hasen Taj (2001) among three personnel from each NGO including the President or Secretary and two other committed members of the NGOs. All the necessary verbal instructions were provided to them. The TEAS is a 4 points scale with 61 statements covering six areas. The NGO personnel were asked to give their response against each statement by giving tick (✓) mark in any one of the four boxes which indicates as strongly agree, agree, disagree and strongly disagree against the statements. The NGO personnel were requested to give answers in all the statements without leaving any one and they were provided ample time for this purpose. After completion of the attitude scale by the personnel the investigator collected the sheets with thanks.
4.7.2.iv Visit to the areas and participation in the NGOs’ Programmes by the Investigator:

The investigator visited some areas of operation of a few NGOs under the investigation as a part of primary data collection and hold informal interactions with the beneficiary people.

The investigator also had the opportunity to participate in three environmental awareness campaign programmes arranged by the NGOs. It was observed by the investigator that the attendants, which belonged to different working classes or housewives responded very well in some events like quiz, extempore, speech etc. after the good deliberations from the resource persons on different aspects of environment. The investigator also attended a workshop on Teacher Training at zoo campus, Guwahati arranged by a Guwahati based NGO (CEE, NE) in collaboration with a national level NGO. The three-day training camp provided the teachers (teachers from schools, colleges and forest college) the updated knowledge in conservation of nature, natural resources, wild life in a very joyful way.

The practical experiences gained from the participation in the awareness programmes and witnessing the measures adopted by the NGOs towards protection of environment helped the investigator to be acquainted with the NGOs activities in the concerned area of study.
4.7.3. ADMINISTRATION OF ENVIRONMENTAL AWARENESS ABILITY MEASURE (EAAM):

Environmental NGOs are engaged in empowering the people from different walks of life of the society in environmental issues with a view to protecting the 'green' state from the cruel hands of degradading elements. Such efforts of the NGOs become fruitful when the target group tend to develop a rational awareness towards the value of environmental factors that surround them, realize the need of conservation of natural resources, wildlife, human health and develop a deep concern about the increasing pollution and the like. With this purpose in view the present study also aimed at assessing the awareness level of the NGO educated common people with the help of the standardized tool—EAAM developed by Dr. Prabeen Kr. Jha (2004). The investigator excluded the affluent and highly educated people from measuring the awareness level. A total number of 150 persons from the areas of operation of the NGOs were selected on the basis of purposive sampling method.

The investigator personally met the persons and hold a brief informal interaction with them about the introduction of the investigator, purpose of the visit and the NGOs initiatives in regard to environmental literacy among them and their participation in the programmes arranged by the NGOs etc. After establishing a good rapport the selected persons
were requested to assemble at a place of their convenience and the Assamese version of questionnaire was administered among them. All the necessary instructions were given prior to the administration of the tool. They were told to read all the statements of questionnaire carefully and give their response as tick (✓) mark against the Agree or Disagree boxes that are shown to the end of each statement without leaving anyone. There was no time bound of answering the sheet.

The investigator administered the EAAM among people of each sample NGO’s area of operation (10 persons under each NGOs) by following the above stated procedure and collected all the 150 answer sheets for necessary analysis and interpretation. The ranges of age and education of NGO-educated people lie in between 18 to 60 and under HSSLC level respectively. Different categories that the sampled people belonged to are shown in table 4.3.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Category</th>
<th>Number of educated people</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>House wife</td>
<td>60</td>
</tr>
<tr>
<td>2.</td>
<td>Farmer</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Shopkeeper</td>
<td>20</td>
</tr>
<tr>
<td>4.</td>
<td>Unemployed youth</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>Retired person</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Social worker</td>
<td>25</td>
</tr>
<tr>
<td>7.</td>
<td>Businessman</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>150</td>
</tr>
</tbody>
</table>
The interpretation of the awareness levels of the NGO-educated people will be done under three categories viz. High, Average and Low in accordance with the distribution of scores presented in table 4.4.

<table>
<thead>
<tr>
<th>Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>37-51</td>
</tr>
<tr>
<td>Average</td>
<td>16-36</td>
</tr>
<tr>
<td>Low</td>
<td>0-15</td>
</tr>
</tbody>
</table>

Following the stated procedures the investigator collected all the requisite primary data. Data were collected from the month of April 2006 to December 2007.

4.8. STATISTICAL TREATMENT OF THE DATA:

For any scientific study, the analysis of collected data in a planned way is must. Adequate analysis of the collected data gives a meaningful result of the investigated problem. They are quantitative and qualitative data.

Quantitative data are obtained through different measurement scales. The experiences of people are fit into standardized responses to which numerical values are attached. These data are close-ended and hardly provide any depth and detail.

Qualitative data are verbal or other symbolic materials. The detailed descriptions of observed behaviours, people, situations and
events are examples of qualitative data. Data of this kind is descriptive in nature and provide depth and detail.

Statistical application in research methodology is essential to get the collected data in a more organized and meaningful way. It gives the reader a concrete and precise idea about the whole study.

The nature of the present study is primarily descriptive and analytical and the investigator relied on examining some of the critical issues rather than establishing or disproving any pre-formulated set of hypotheses. Hence percentage is adopted as the major technique of statistical treatment for the obtained data. SE of percentages from the overall scores were calculated in objective numbers 2 and 6. Tabulation of data was done manually. Necessary Bar graphs, Pie diagrams are used to interpret the data.

The present study, which comes under the descriptive research study, attempts to follow a well-planned procedure while collecting the data. In this chapter the methods and steps of construction of tools, the procedure adopted in the collection of data, the ways of analysis of data and the statistical treatment to be applied are described. The following chapter deals with the analysis, interpretation and discussion of the data under the present study.