CHAPTER III

METHODOLOGY

3.1 INTRODUCTION

Successful conduct of any research requires suitable methodology with specific operational steps and well-constructed tools. The present investigation traces the challenges in the implementation of 3R technology in water resource management. This chapter presents the details of the variables under study, tools used for the study, sample for the study, procedure of data collection, scoring methodology and the statistical techniques used for analyzing the data.

3.2 METHOD OF STUDY

The present investigation was undertaken by using normative survey method. The survey method gathers data from a large number of cases at particular time. It is interested in knowing something about the whole population. The present investigation aims to bring out the water resource management strategy with reference to 3R technology.

3.3 SURVEY METHOD

Survey is a procedure in which data is systematically collected from a population through some form of direct solicitation such as face
interview, questionnaire or schedule. According to John W. Best (1959) "The survey is extensive and cross sectional, dealing with a relatively large number of cases at a particular time and yielding statistics that are abstracted from particular cases.

The survey approach to educational problems is one of the most commonly use approaches. It goes beyond mere gathering and tabulation of data. It involves interpretation, comparison, measurement, classification, evaluation and generalization all directed towards a proper understanding and solution of significant educational problems. It brings into the focus of our attention to existing educational problems and also suggests ways of meeting them. It gives importance to what is rather than why it is so.

a. Factual information regarding existing status enable members of the profession to make efficient plans about future course of action.

b. It provides comprehensive of underlaying issues in the areas of study.

c. It focuses, the attention upon the needs that otherwise world remain unnoticed.

d. It provides extensive information about the nature of educational phenomena.
Steps in Survey Research

The survey research involves a series of steps as follows

a. Planning

It involves the defining of the research problem and the development of survey design. The variables involved in the research are operationally defined.

b. Development an application of sampling plan

The sample survey research gives very much importance to the sample selection must be conducted in such a manner that valid inferences can be drawn to the population and to any sub population.

c. Construction of research tool

The research tool is constructed by the researcher for the purpose of study. The item for the questionnaire and the interview scheduled are carefully selected. The pilot study is made to arrange the items.

d. Data collections

This involves conducting interviews and administering tests questionnaire, inventories and observations scheduled.

e. Translation of Data
The data collected are first translated into a qualified form, such as assigned numbers to the responses. This translation of data is known as coding. Data and tabulated with the view to prove or disapprove the hypothesis made.

f. Data analysis

The collected data are synthesized and statistical procedure is adopted to bring out results

g. Conclusion and Reporting

Major findings and suggestions are given in the conclusions and report about the research

3.4 PILOT STUDY

3.4.1 CONSTRUCTION OF THE TOOL - WATER RESOURCE MANAGEMENT AT DOMESTIC SECTOR

DOMESTIC SECTOR

In order to construct the tool to measure the knowledge of water resource management at domestic sector at the initial stage, the researcher referred to the books, journals and discussed with experts in water management as well as in water treatment technologies and in this background as many as 33 statements were developed. The response of the tool was with 3 point scale with the responses with the weightage of 2, 1 and 0 for Always, Sometimes and Never respectively.
The tool was administered on 200 domestic people who were selected at random. All the 200 tools, collected from the domestic people were scored carefully. In order to select the reliable items the researcher has used four statistical measures namely 1. 't' value, 2.Kolmogorov-Smirnov test, and 3.Gronbach's Alpha test. Using the Kolmogrov Smirnov test the equality of mean scores was tested, the mean scores that differed significantly were retained (Guilford, J.P. 1965). The significant level is 0.0 level. The Kolmogorov Smirnov test value for those items significant at 0.0 level were considered for the final tool. The Cronbach’s Alpha value was calculated for the two set of scores for each statement. The item with the Cronbach’s Alpha value greater than 0.5 were retained and less than 0.5 were not considered. Further, to establish the significance of the test items, the 't' value were calculated. The 't' value for the statements greater than the table value at 0.05 level has been taken into consideration.

Based on the statistical treatments namely Cronbach’s Alpha test value ranging from 0.75 to 0.99, Kolmogorov Smirnov test value ranging from 1.15 to 4.82 and 't' value ranging from 1.87 to 4.02 the statements of the final tool was established(table - 1). Out of the 33 statements after the analysis 8 statements got eliminated and 25 statements were
found to be statistically valid. The final version of the tool entitled water resource management at domestic level consists of 25 statements.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Cronbach's Alpha</th>
<th>‘t’ value</th>
<th>Kolmogorov-Smirnov test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.84</td>
<td>4.01</td>
<td>4.82</td>
</tr>
<tr>
<td>2</td>
<td>0.75</td>
<td>1.87</td>
<td>1.88</td>
</tr>
<tr>
<td>3</td>
<td>0.86</td>
<td>3.05</td>
<td>3.11</td>
</tr>
<tr>
<td>4</td>
<td>0.82</td>
<td>2.98</td>
<td>2.39</td>
</tr>
<tr>
<td>5</td>
<td>0.81</td>
<td>2.00</td>
<td>3.25</td>
</tr>
<tr>
<td>6</td>
<td>0.83</td>
<td>2.00</td>
<td>1.78</td>
</tr>
<tr>
<td>7</td>
<td>0.79</td>
<td>1.87</td>
<td>3.22</td>
</tr>
<tr>
<td>8</td>
<td>0.76</td>
<td>1.87</td>
<td>1.15</td>
</tr>
<tr>
<td>9</td>
<td>0.88</td>
<td>2.32</td>
<td>1.92</td>
</tr>
<tr>
<td>10</td>
<td>0.80</td>
<td>3.80</td>
<td>3.10</td>
</tr>
<tr>
<td>11</td>
<td>0.83</td>
<td>3.80</td>
<td>4.53</td>
</tr>
<tr>
<td>12</td>
<td>0.81</td>
<td>1.87</td>
<td>2.11</td>
</tr>
<tr>
<td>13</td>
<td>0.93</td>
<td>3.71</td>
<td>2.57</td>
</tr>
<tr>
<td>14</td>
<td>0.75</td>
<td>1.89</td>
<td>1.16</td>
</tr>
<tr>
<td>15</td>
<td>0.80</td>
<td>4.02</td>
<td>3.62</td>
</tr>
<tr>
<td>16</td>
<td>0.78</td>
<td>3.76</td>
<td>2.14</td>
</tr>
<tr>
<td>17</td>
<td>0.87</td>
<td>3.34</td>
<td>3.33</td>
</tr>
<tr>
<td>18</td>
<td>0.81</td>
<td>3.05</td>
<td>2.92</td>
</tr>
<tr>
<td>19</td>
<td>0.99</td>
<td>2.70</td>
<td>3.65</td>
</tr>
<tr>
<td>20</td>
<td>0.95</td>
<td>3.07</td>
<td>3.12</td>
</tr>
<tr>
<td>21</td>
<td>0.80</td>
<td>2.64</td>
<td>2.57</td>
</tr>
<tr>
<td>22</td>
<td>0.93</td>
<td>4.00</td>
<td>3.16</td>
</tr>
<tr>
<td>23</td>
<td>0.87</td>
<td>2.56</td>
<td>2.62</td>
</tr>
<tr>
<td>24</td>
<td>0.86</td>
<td>2.87</td>
<td>2.14</td>
</tr>
<tr>
<td>25</td>
<td>0.99</td>
<td>3.06</td>
<td>3.33</td>
</tr>
</tbody>
</table>

The tool consists of three point scale with a maximum score of 50 and a minimum of 0. The responses of the tool consists of a 3 point
scale with the responses with the weightage of 2, 1 and 0 for Always, Sometimes and Never respectively.

While constructing the tool the researcher took lot of care in choosing the items with due importance to three dimensions of water management namely Reduce, Reuse and Recycle. The entire tool comprises of three dimensions namely Reduce, Recycle and Reuse. Out of the 25 items 14 items belong to the dimension Reduce, 5 of Reuse and 6 items belong to recycle.

Validity

In the beginning of the process of tool construction the selected statements were given to experts on water resource management and water treatment management as well as to some domestic people who are the consumer of water at different forms for their approval. They judged the appropriateness of the statements. The statements were modified with their suggestions prior to administration and thereby the content validity was ensured.

Reliability

The reliability means the consistency with which a set of test scores measures whatever they do measure. In the present study the reliability coefficient of learning approach questionnaire was calculated
by using the Split-Half Method. A sample of 30 response sheet was taken. The score obtained for each of the 30 respondents for the odd and even items were grouped separately. Thus for every individual a pair of scores were obtained. The score pair of 30 respondents was used to work out Pearson's product-moment correlation coefficient. The reliability coefficient for the whole test was calculated by using the spearman-Brown prophecy formulae.

\[ R = \frac{2r}{1+r} \]

Where “r” is the reliability coefficient of the half test.

The Reliability coefficient of the tool was ascertained by using the test-retest method and which was found to be 0.82. The coefficient of stability is also determined by the test-retest method it is found to be 0.74.

3.4.2 CONSTRUCTION OF THE TOOL - WATER RESOURCE MANAGEMENT AT OFFICE SECTOR

OFFICE SECTOR

In order to construct the tool to measure the water resource management at office sector at the initial stage, the researcher referred to the books, journals and discussed with experts in water management as well as in water treatment technologies and in this background as
many as 33 statements were developed. The response of the tool was with 3 point scale with the responses with the weightage of 2, 1 and 0 for Always, Sometimes and Never.

The tool was administered on 200 office people who were selected at random. All the 200 tools, collected from the office people were scored carefully. In order to select the reliable items the researcher has used four statistical measures namely 1. ‘t’ value, 2.Kolmogorov-Smirnov test, and 3.Gronbach’s Alpha test. Using the Kolmogrov Smirnov test the equality of mean scores was tested, the mean scores that differed significantly were retained (Guilford, J.P. 1965). The significant level is 0.0. The Kolmogorov Smirnov test values for those items significant at 0.0 level were considered for the final tool.

The Cronbach’s Alpha value was calculated for the two set of scores for each statement. The item with the Cronbach’s Alpha value greater than 0.5 were retained and less than 0.5 were not considered. Further, to establish the significance of the test items, the ‘t’ value were calculated. The ‘t’ value for the statements greater than the table value at 0.05 level has been taken into consideration.
Based on the statistical treatments namely Cronbach's Alpha test value ranging from 0.56 to 0.76, Kolmogorov Smirnov test value ranging from 4.49 to 10.14 and 't' value ranging from 1.87 to 4.41 the statements of the final tool was established. (table 3.2) Out of the 33 statements after the analysis 11 statements got eliminated and 22 statements were found to be statistically valid. The final version of the tool entitled the water resource management at office level “consists of 22 statements. The tool consists of three point scale with a maximum score of 44 and a minimum of 0. Out of the 22 items 8 items belong to the dimension Reduce, 7 of Reuse and 7 items belong to Recycle Table 3.2.
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Cronbach’s Alpha</th>
<th>‘t’ value</th>
<th>Kolmogorov-Smirnov test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.56</td>
<td>2.18</td>
<td>4.89</td>
</tr>
<tr>
<td>2</td>
<td>0.63</td>
<td>1.98</td>
<td>7.18</td>
</tr>
<tr>
<td>3</td>
<td>0.65</td>
<td>3.01</td>
<td>9.78</td>
</tr>
<tr>
<td>4</td>
<td>0.57</td>
<td>2.59</td>
<td>6.17</td>
</tr>
<tr>
<td>5</td>
<td>0.58</td>
<td>2.80</td>
<td>5.21</td>
</tr>
<tr>
<td>6</td>
<td>0.57</td>
<td>2.11</td>
<td>4.73</td>
</tr>
<tr>
<td>7</td>
<td>0.58</td>
<td>1.97</td>
<td>4.49</td>
</tr>
<tr>
<td>8</td>
<td>0.57</td>
<td>2.56</td>
<td>6.13</td>
</tr>
<tr>
<td>9</td>
<td>0.59</td>
<td>3.73</td>
<td>7.23</td>
</tr>
<tr>
<td>10</td>
<td>0.66</td>
<td>3.12</td>
<td>9.97</td>
</tr>
<tr>
<td>11</td>
<td>0.61</td>
<td>2.18</td>
<td>5.54</td>
</tr>
<tr>
<td>12</td>
<td>0.67</td>
<td>2.36</td>
<td>7.65</td>
</tr>
<tr>
<td>13</td>
<td>0.62</td>
<td>3.55</td>
<td>6.43</td>
</tr>
<tr>
<td>14</td>
<td>0.76</td>
<td>4.22</td>
<td>10.14</td>
</tr>
<tr>
<td>15</td>
<td>0.63</td>
<td>2.91</td>
<td>8.98</td>
</tr>
<tr>
<td>16</td>
<td>0.58</td>
<td>4.11</td>
<td>7.11</td>
</tr>
<tr>
<td>17</td>
<td>0.72</td>
<td>2.08</td>
<td>5.11</td>
</tr>
<tr>
<td>18</td>
<td>0.71</td>
<td>1.87</td>
<td>4.98</td>
</tr>
<tr>
<td>19</td>
<td>0.58</td>
<td>2.25</td>
<td>4.91</td>
</tr>
<tr>
<td>20</td>
<td>0.58</td>
<td>2.47</td>
<td>5.15</td>
</tr>
<tr>
<td>21</td>
<td>0.61</td>
<td>3.42</td>
<td>9.78</td>
</tr>
<tr>
<td>22</td>
<td>0.59</td>
<td>4.16</td>
<td>7.11</td>
</tr>
</tbody>
</table>
Validity

In the beginning of the process of tool construction the selected statements were given to experts on water resource management and water treatment management as well as to some office people who are the consumer of water at different forms for their approval. They judged the appropriateness of the statements. The statements were modified with their suggestions prior to administration and thereby the content validity was ensured.

Reliability

The reliability means the consistency with which a set of test scores measures whatever they do measure. In the present study the reliability coefficient of learning approach questionnaire was calculated by using the Split-Half Method. A sample of 30 response sheet was taken. The score obtained for each of the 30 respondents for the odd and even items were grouped separately. Thus for every individual a pair of scores were obtained. The score pair of 30 respondents were used to work out Pearson's product-moment correlation coefficient. The reliability coefficient for the whole test was calculated by using the spearman-Brown prophecy formulae.
$$R = \frac{2r}{1+r} \text{ Where } "r" \text{ is the reliability coefficient of the half test.}$$

The Reliability coefficient of the tool was ascertained by using the test re test method and which was found to be 0.87. The coefficient of stability is also determined by the test-retest method it is found to be 0.79.

3.4.3 CONSTRUCTION OF THE TOOL - WATER RESOURCE MANAGEMENT AT INDUSTRIAL SECTOR

INDUSTRIAL SECTOR

To construct the tool to measure the water resource management at the industrial sector at the initial stage, the researcher referred to the books, journals and discussed with experts in water management as well as in water treatment technologies and in this background as many as 9 statements were developed. The response of the tool was with yes or No type with the weightage of 1 and 0 for yes and no items respectively.

The tool was administered on 50 industries that were selected at random. All the 50 tools, collected from the industries people were scored carefully. The item to measure the knowledge of water resource management at industrial sector consists of 9 divisions. In order to
select the reliable items the chi square value was calculated. The items with the chi square values greater than 20.00 were selected for the final study. All the 9 statements were found to be valid. The final version of the tool entitled “water resource management at industrial level “consists of 9 statements. The tool has the maximum score of 9 and the minimum score of 0. Out of the 9 items 2 items belong to the dimension Reduce, 3 of Reuse and 4 items belong to Recycle.

Validity

In the beginning of the process of construction of the tool the selected statements were given to experts on water resource management and water treatment management as well as to some industry people who are the consumer of water at different forms to get their opinion in order make the items appropriate. They judged the appropriateness of the statements. The statements were modified with their suggestions prior to administration and thereby the content validity was ensured.

Reliability

The reliability means the consistency with which a set of test scores measures whatever they do measure. In the present study the reliability coefficient of learning approach questionnaire was calculated
by using the Split-Half Method. A sample of 30 response sheet was taken. The score obtained for each of the 30 respondents for the odd and even items were grouped separately. Thus for every individual a pair of scores were obtained. The score pair of 30 respondents was used to work out Pearson's product-moment correlation coefficient. The reliability coefficient for the whole test was calculated by using the spearman-Brown prophecy formulae.

\[ R = \frac{2r}{1+r} \]

Where "r" is the reliability coefficient of the half test.

The Reliability coefficient of the tool was ascertained by using the test re test method and which was found to be 0.76. The coefficient of stability is also determined by the test-retest method it is found to be 0.71.

3.4.4 CONSTRUCTION OF THE TOOL - AVAILABILITY AND USE OF FACILITIES FOR WATER MANAGEMENT - AT DOMESTIC SECTOR

To construct the tool to measure the of water resource management at the domestic sector at the initial stage, the researcher referred to the books, journals and discussed with experts in water management as well as in water treatment technologies and in this background as many as 17 statements were developed. The response of the tool was with yes or no type with the weightage of 1 and 0 for yes
and no items respectively. In order to select the apt items chi square was used and chi square values were calculated. The items with the chi square values greater than 20.00 were selected for the final study. Out of 17 statements only 14 statements were found to be valid. The final tool comprises of 14 items. The maximum score is 14 and the minimum score is 0. Table 3.3.

**TABLE – 3.3 (FINAL STUDY)**

**AVAILABILITY AND USE OF FACILITIES FOR WATER MANAGEMENT - AT DOMESTIC SECTOR**

**(VALUES OF THE STATEMENTS SELECTED)**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Chi-square value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54.85</td>
</tr>
<tr>
<td>2</td>
<td>68.61</td>
</tr>
<tr>
<td>3</td>
<td>45.87</td>
</tr>
<tr>
<td>4</td>
<td>36.71</td>
</tr>
<tr>
<td>5</td>
<td>58.37</td>
</tr>
<tr>
<td>6</td>
<td>25.93</td>
</tr>
<tr>
<td>7</td>
<td>68.84</td>
</tr>
<tr>
<td>8</td>
<td>76.21</td>
</tr>
<tr>
<td>9</td>
<td>83.50</td>
</tr>
<tr>
<td>10</td>
<td>51.62</td>
</tr>
<tr>
<td>11</td>
<td>48.96</td>
</tr>
<tr>
<td>12</td>
<td>37.24</td>
</tr>
<tr>
<td>13</td>
<td>46.26</td>
</tr>
<tr>
<td>14</td>
<td>29.32</td>
</tr>
</tbody>
</table>
Reliability

The reliability coefficient of learning approach questionnaire was calculated by using the Split-Half Method. A sample of 30 response sheet was taken. The score obtained for each of the 30 respondents for the odd and even items were grouped separately. Thus for every individual a pair of scores were obtained. The score pair of 30 respondents was used to work out Pearson's product-moment correlation coefficient.

The Reliability coefficient of the tool was ascertained by using the test re test method and which was found to be 0.71.

3.4.5 CONSTRUCTION OF THE TOOL - AVAILABILITY AND USE OF FACILITIES FOR WATER MANAGEMENT - AT OFFICE SECTOR

To construct the tool to measure the water resource management at the office sector at the initial stage, the researcher referred to the books, journals and discussed with experts in water management as well as in water treatment technologies and in this background as many as 12 statements were developed. The response of the tool was with yes or no type with the weightage of 1 and 0 for yes and no items respectively. In order to select the apt items chi square was used and chi square values were calculated. The items with the chi square values
greater than 20.00 were selected for the final study. Out of 12 statements only 9 statements were found to be valid, (Table 4.4).

TABLE – 3.4 (FINAL STUDY)

AVAILABILITY AND USE OF FACILITIES FOR WATER MANAGEMENT
- AT OFFICE SECTOR (VALUES OF THE STATEMENTS SELECTED)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Chi-square value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54.82</td>
</tr>
<tr>
<td>2</td>
<td>68.66</td>
</tr>
<tr>
<td>3</td>
<td>45.86</td>
</tr>
<tr>
<td>4</td>
<td>36.71</td>
</tr>
<tr>
<td>5</td>
<td>58.38</td>
</tr>
<tr>
<td>6</td>
<td>25.69</td>
</tr>
<tr>
<td>7</td>
<td>68.87</td>
</tr>
<tr>
<td>8</td>
<td>76.81</td>
</tr>
<tr>
<td>9</td>
<td>83.52</td>
</tr>
</tbody>
</table>

RELIABILITY

The reliability coefficient of learning approach questionnaire was calculated by using the test re test method which was found to be 0.72.

3.5 FINAL STUDY

WATER RESOURCE MANAGEMENT AT DOMESTIC SECTOR - TOOL

The final version of the tool entitled water resource management at domestic sector consists of 25 statements. The tool consists of three
point scale with a maximum score of 50 and a minimum of 0. The response of the tool consists of a 3 point scale with the responses with the weightage of 2, 1 and 0 for Always, Sometimes and Never respectively.

The entire tool comprises of three dimensions namely Reduce, Recycle and Reuse. Out of the 25 items 14 items belong to the dimension Reduce, (item no's 2, 3, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17 and 24) 5 of Reuse (item no's 1, 9, 18, 22 and 25) and 6 items belong to Recycle (item no's 4, 13, 19, 20, 21 and 23).

WATER RESOURCE MANAGEMENT AT OFFICE SECTOR - TOOL

The final version of the tool entitled “water resource management at office sector “consists of 22 statements. The tool consists of three point scale with a maximum score of 44 and a minimum of 0. Out of the 22 items 8 items belong to the dimension Reduce (item no's 1, 2, 3, 6, 14, 15, 17, and 22), 7 of Reuse (item no's 7, 8, 9, 12, 18, 19 and 21) and 7 items belong to Recycle (item no's 4, 5, 10, 11, 13, 16 and 20).

WATER RESOURCE MANAGEMENT AT INDUSTRIAL SECTOR - TOOL

The final version of the tool entitled “water resource management at industrial sector “consists of statements the tool has the maximum
score of 9 and the minimum score of 0. Out of the 9 items 2 items belong to the dimension Reduce (item no’s 6 and 7), 3 of Reuse (item no’s 5, 8 and 9) and 4 items belong to Recycle (item no’s 1, 2, 3 and 4).

AVAILABILITY AND USE OF FACILITIES FOR WATER MANAGEMENT - AT DOMESTIC SECTOR

The final tool comprises of 14 items. The maximum score is 14 and the minimum score is 0.

AVAILABILITY AND USE OF FACILITIES FOR WATER MANAGEMENT – AT OFFICE SECTOR

The final tool comprises of 9 items. The maximum score is 9 and the minimum is 0.

3.6 SAMPLE

The term sample refers to a small group of individuals taken from a large population. A sample may be defined as a finite number of observations or cases, selection from all areas in a particular universe, often assumed to be representative of which it is a part Good (1973). A sample is a small proportion of a population selected for observation and analysis by observing the characteristics of the sample; one can make certain inferences about the characteristics of the population from which it is drawn John W. Best (2001).
The sample for the present study was chosen from Chennai city only. The sample of the study consists of families, offices and Industries of the Chennai city. Purposive sampling method was used to select the sample. Proportionate weightage was given to domestic, office and industry sample. The total sample includes 430 from domestic sector, 240 from office sector and 100 from industrial sector. The details of the sample distribution with reference to the background variables are provided below in Table No.3.5, 3.6, 3.7.
Table - 3.5 - Distribution of the sample – Domestic Sector

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>M</td>
<td>F</td>
<td>D</td>
<td>G</td>
<td>PG</td>
</tr>
<tr>
<td>Family</td>
<td>430</td>
<td>245</td>
<td>185</td>
<td>50</td>
<td>170</td>
</tr>
</tbody>
</table>

Table - 3.6 - Distribution of the sample – Office Sector

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>Occupation</th>
<th>No.of.Office.Staff's</th>
<th>Nature.of.Office</th>
<th>Month.Turnover / Lakhs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>D</td>
<td>G</td>
<td>PG</td>
<td>Prof</td>
</tr>
<tr>
<td>Office</td>
<td>240</td>
<td>45</td>
<td>70</td>
<td>125</td>
</tr>
</tbody>
</table>

Table - 3.7 Distribution of the sample – Industrial Sector

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>Occupation</th>
<th>No.of.Factory Workers</th>
<th>Nature.of.Factory</th>
<th>Month.Turnover /Crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>D</td>
<td>G</td>
<td>PG</td>
<td>Prof</td>
</tr>
<tr>
<td>Industry</td>
<td>100</td>
<td>21</td>
<td>42</td>
<td>37</td>
</tr>
</tbody>
</table>

Note: The sample collected with regards to the variable female is statistically negligible. Hence the sample female has not been taken in to consideration in the case of office and Industrial sector.

* M – Male  F – Female  D – Diploma  G – Graduate  PG – Post Graduate  Prof – Professional Degree  H.M – Home Maker
* C.Exe – Chief Executive  Mfg – Manufacturing
The graphical representations of the distribution of the sample based on the background variables are presented in the succeeding pages.

FIGURE - 3.1

Domestic Sector

Gender

- Male - 245
- Female - 185
FIGURE – 3.2

Domestic Sector

Educational Qualification

- Diplamo - 50
- Graduate - 170
- Post Graduate - 150
- Professional Degree - 60
FIGURE – 3.3

Domestic Sector

Occupation

- Home Maker - 80
- Government Employee - 60
- Private Employee - 185
- Business - 105
FIGURE – 3.4

Domestic Sector

Number of Family Members

- 01 to 2 - 90
- 3 to 4 - 250
- > 5 - 90
FIGURE – 3.5

Domestic Sector

Nature of Residence

- Own - 250
- Rent - 180
FIGURE – 3.6

Domestic Sector

Monthly Income

- < 25 Thousand - 90
- 25 - 50 Thousand - 200
- > 50 Thousand - 140
FIGURE – 3.7

Office Sector

Educational Qualification

- Diplamo - 45
- Graduate - 70
- Post Graduate / Professional Degree - 125
FIGURE – 3.8

Office Sector

Occupation

Executive - 95
Manager - 60
Chief Executive - 85
FIGURE – 3.9
Office Sector

Number of Staff's

- < 50 Staffs - 100
- 51 - 100 - Staff's - 80
- > 100 - Staff's - 60
FIGURE – 3.10

Office Sector

Nature of Office

- Own: 180
- Rent: 60
FIGURE – 3.11

Office Sector

Monthly Turnover

- < 25 Lakhs - 50
- 25 - 50 Lakhs - 60
- > 50 Lakhs - 130
FIGURE – 3.12

Industrial Sector

Educational Qualification

- Diploma - 21
- Graduate - 42
- Post Graduate / Professional Degree - 37
FIGURE – 3.13

Industrial Sector

Occupation

- Executive - 27
- Manager - 23
- Chief Executive - 50
FIGURE – 3.14

Industrial Sector

Number of Worker's

- < 50 Staffs - 21
- 51 - 100 Staff's - 30
- > 100 Staff's - 49
FIGURE – 3.15

Industrial Sector

Nature of Factory

- Manufacturing - 78
- Trading - 22
FIGURE – 3.16

Industrial Sector

Monthly Turnover

- < 25 Crore - 22
- 25 - 50 Crore - 34
- > 50 Crore - 44
3.7 ADMINISTRATION OF THE TOOL

In order to collect data for the present study the researcher administered the tools to the domestic people, people who belong to office sector and the people in the industrial sector. Where ever possible the researcher gone in person and distributed the research tool to the domestic and explained the way of filling up the questionnaire and clarified the doubts raised by them. Similarly in the case of office and industry sector the questionnaire was handed over to a responsible person and the researcher briefed about the items and the method of filling up of the questionnaire and in turn they taken the responsibility of distributing and getting back the questionnaire from their employees. At the end the researcher was able to get 430 questionnaires from domestic sector, 240 from office sector and 100 from industrial sector. The collected final tools were scored and the data has been considered for the final analysis.
3.8 STATISTICAL TECHNIQUES USED

The following statistical treatments have been used to analyse the data.

Descriptive Analysis

Analysis of Variance & Regression Analysis.

3.9 DESCRIPTION ABOUT THE VARIABLES

Main Variable - water resource management

Background Variables

The gender was classified as male and female.

The educational qualification of the sample belonging to domestic sector were classified in to four categories namely Diploma, Graduate, Post Graduate and Professional Degree

The employment status refers to their professional designation and it was classified into three categories in the domestic sector namely Government Employee, Private Employee and Home Maker in the case of women sample.
The employment status was classified into three categories in the office sector namely Business, Executive and Chief Executive.

The Number of family members in the domestic sector was classified as families with 1–2 members and 3–4 and more than 5 members.

The Nature of Residence in the domestic sector was categorised into two namely dwelling in own house and rented house.

The income of the family in the case of domestic sector was classified into three categories namely monthly less than Rupees 25 thousand, between 25 thousand and 50 thousand and more than 50 thousand.

The Number of staff serving in the office sector was classified into three categories namely less than 50 staff, between 51 and 100, and more than 100.

The nature of office was classified as established in their own building and rented building.
The monthly turnover of the office was classified into turnover less than 25 lakhs, between 25 and 50 lakhs, and more than 50 lakhs.

The number of Employees working in the industrial sector were categorised into less than 50, between 51 and 100 and more than 100.

The Nature of Industry were categorised into two as Manufacturing and Trading.

The monthly turnover in the case of Industries were classified into three categories namely less than 25 crores, between 25 and 50 crores and more than 50 crores.