CHAPTER-I

GENERAL INTRODUCTION
Table 6.37
Social and Political Participation Before and After NGO Involvement

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Before</th>
<th>After</th>
<th>Total</th>
<th>Chi square</th>
<th>P. Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Membership in political parties</td>
<td>29 (16.5)</td>
<td>147 (83.5)</td>
<td>40 (22.7)</td>
<td>136 (77.3)</td>
<td>69 (19.6)</td>
<td>286 (8.04)</td>
</tr>
<tr>
<td>2</td>
<td>Voting in state legislative election and local bodies</td>
<td>108 (61.4)</td>
<td>68 (38.6)</td>
<td>139 (79.0)</td>
<td>37 (21.0)</td>
<td>247 (70.2)</td>
<td>105 (29.8)</td>
</tr>
<tr>
<td>3</td>
<td>Contesting in the villages panchayath election</td>
<td>43 (24.4)</td>
<td>133 (75.6)</td>
<td>156 (89.2)</td>
<td>20 (10.8)</td>
<td>199 (56.5)</td>
<td>153 (43.5)</td>
</tr>
<tr>
<td>4</td>
<td>Participation in grama sabha</td>
<td>43 (24.4)</td>
<td>133 (75.6)</td>
<td>157 (89.2)</td>
<td>19 (10.8)</td>
<td>200 (56.8)</td>
<td>152 (43.2)</td>
</tr>
<tr>
<td>5</td>
<td>Membership in school education committees</td>
<td>40 (22.7)</td>
<td>136 (77.3)</td>
<td>129 (73.3)</td>
<td>47 (26.7)</td>
<td>169 (48.0)</td>
<td>183 (52.0)</td>
</tr>
<tr>
<td>6</td>
<td>Participation in watershed committee</td>
<td>50 (28.4)</td>
<td>126 (71.6)</td>
<td>100 (56.8)</td>
<td>76 (43.2)</td>
<td>150 (42.6)</td>
<td>202 (57.4)</td>
</tr>
<tr>
<td>7</td>
<td>Participation in awareness programme like AIDS, Sanitation</td>
<td>44 (25.0)</td>
<td>132 (75.0)</td>
<td>111 (63.1)</td>
<td>65 (36.9)</td>
<td>155 (44.0)</td>
<td>197 (56.0)</td>
</tr>
<tr>
<td>8</td>
<td>Interaction with government officials</td>
<td>106 (60.2)</td>
<td>70 (39.8)</td>
<td>153 (86.9)</td>
<td>23 (13.1)</td>
<td>259 (73.6)</td>
<td>93 (26.4)</td>
</tr>
<tr>
<td>9</td>
<td>Saving opening of bank account</td>
<td>79 (44.9)</td>
<td>97 (55.1)</td>
<td>119 (67.6)</td>
<td>57 (32.4)</td>
<td>198 (56.3)</td>
<td>154 (43.8)</td>
</tr>
<tr>
<td>10</td>
<td>Readers of newspapers</td>
<td>84 (47.7)</td>
<td>92 (52.3)</td>
<td>127 (72.2)</td>
<td>49 (27.8)</td>
<td>211 (59.9)</td>
<td>141 (40.1)</td>
</tr>
</tbody>
</table>

Source: Primary data.
Note: Figures in the parenthesis represent percentages.
6.4.16 Respondents Expenditure Before and After Joining the NGO

The results of ‘t’ test computed to know the impact of watershed programme on the socio-economic conditions of the respondents have been presented in the table 6.39.

**Table 6.39**

Expenditure of the Sample Respondents

<table>
<thead>
<tr>
<th>S No</th>
<th>Particulars</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t-test</th>
<th>P-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Food</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>2370.45</td>
<td>965.48</td>
<td>3.898</td>
<td>0.000</td>
<td>Significant @ 1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>2773.86</td>
<td>976.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Education</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>2538.84</td>
<td>1591.20</td>
<td>2.343</td>
<td>0.020</td>
<td>Significant @ 5% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>2944.89</td>
<td>1660.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Power/fuel</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>526.02</td>
<td>269.55</td>
<td>1.630</td>
<td>0.104</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>576.31</td>
<td>307.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Religious Functions and Festivals</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>541.32</td>
<td>194.58</td>
<td>3.721</td>
<td>0.000</td>
<td>Significant @ 1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>632.84</td>
<td>261.94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Treating Guests</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>519.03</td>
<td>189.16</td>
<td>3.539</td>
<td>0.000</td>
<td>Significant @ 1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>600.97</td>
<td>241.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Recreational Activities</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>139.09</td>
<td>91.90</td>
<td>2.422</td>
<td>0.016</td>
<td>Significant @ 5% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>163.41</td>
<td>96.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Clothing</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>880.45</td>
<td>299.18</td>
<td>4.567</td>
<td>0.000</td>
<td>Significant @ 1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>1046.93</td>
<td>379.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Medicine</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>221.02</td>
<td>292.45</td>
<td>1.204</td>
<td>0.230</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>258.24</td>
<td>287.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Other</td>
<td>Beneficiary Before</td>
<td>176</td>
<td>877.84</td>
<td>422.91</td>
<td>4.764</td>
<td>0.000</td>
<td>Significant @ 1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>176</td>
<td>913.35</td>
<td>501.29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Beneficiary Before</td>
<td>352</td>
<td>8413.88</td>
<td>1928.82</td>
<td>6.938</td>
<td>0.000</td>
<td>Significant @ 1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary After</td>
<td>352</td>
<td>9910.80</td>
<td>2116.06</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data

The table 6.39 shows that ‘t’ value is significant at 1 per cent level in case of food, religious functions and festivals, treating guests, clothing and savings. Hence it can be inferred that there is significant difference between before and after joining watershed and it shows that the watershed has lot of impact on the above aspects. Moreover, the ‘t’ value is significant at 5 per cent level in case of recreational activities, education and hence it can be inferred that there is substantial impact of watershed on education and recreational activities.
On the contrary, the ‘t’ value is insignificant in case of power/fuel and medicine. Hence it can be inferred that watershed has no influence on power/fuel and medicine.

6.4.17 Comparison of the Status between Before and After Watershed Programme

The results of Student ‘t’ test showed in the table reveal the comparison between beneficiaries before and after on number of man days, level of income and annual saving. The analysis shows the significant at 1% level from beneficiaries before and after in the study area. Numbers of man days of the sample respondents are significant at 1% level when compared between respondents before and after. Whereas in the case of level of income of the sample respondents also it is significant at 1% level. The table concluded that there is a significant impact of watershed programme on number of man days, level of income and yearly saving in sample beneficiaries of the study area.

On the whole, there is tremendous progress in the impact of watershed in respect of all the selected projects and mandals of the district. The results show that there is significant level of increase among the respondents. It can be concluded that the respondents of the watershed got more benefits after joining the watershed.
<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Variables</th>
<th>Type of Respondents</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-value</th>
<th>P-value</th>
<th>Remark:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No. of Mands of Respondents</td>
<td>Beneficiaries before</td>
<td>176</td>
<td>135.34</td>
<td>33.649</td>
<td>2.536</td>
<td>16.610</td>
<td>0.000</td>
<td>Significant @1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiaries after</td>
<td>176</td>
<td>210.36</td>
<td>52.713</td>
<td>3.973</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Income Level of Respondents</td>
<td>Beneficiaries before</td>
<td>176</td>
<td>23690.91</td>
<td>14006.049</td>
<td>1055.746</td>
<td>17.035</td>
<td>0.000</td>
<td>Significant @1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiaries after</td>
<td>176</td>
<td>54941.48</td>
<td>22205.326</td>
<td>1673.789</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Saving of Respondents</td>
<td>Beneficiaries before</td>
<td>176</td>
<td>1315.06</td>
<td>1056.93</td>
<td>51.509</td>
<td>12.254</td>
<td>0.000</td>
<td>Significant @1% level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiaries after</td>
<td>176</td>
<td>3511.36</td>
<td>2130.03</td>
<td>76.410</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data
6.4.18 General Information (Awareness About the Watershed)

The information on whether the respondents have awareness about the watershed has been elicited and the details are presented in the table 6.41.

Table 6.41
Awareness on the Watershed

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Knowledge About</th>
<th>No. of Respondents</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Know</td>
<td>Do not Know</td>
</tr>
<tr>
<td>1</td>
<td>Ground water recharge</td>
<td>146 (83.0)</td>
<td>30 (17.0)</td>
</tr>
<tr>
<td>2</td>
<td>Water flow Region</td>
<td>134 (76.1)</td>
<td>42 (23.9)</td>
</tr>
<tr>
<td>3</td>
<td>Wetland functions</td>
<td>148 (84.1)</td>
<td>28 (15.9)</td>
</tr>
<tr>
<td>4</td>
<td>Flood risks</td>
<td>126 (71.6)</td>
<td>50 (28.4)</td>
</tr>
<tr>
<td>5</td>
<td>Water qualities</td>
<td>138 (78.4)</td>
<td>38 (21.6)</td>
</tr>
<tr>
<td>6</td>
<td>Drought risks</td>
<td>150 (85.2)</td>
<td>26 (14.8)</td>
</tr>
<tr>
<td>7</td>
<td>Wild life habitats</td>
<td>160 (90.9)</td>
<td>16 (9.1)</td>
</tr>
</tbody>
</table>

Source: Primary data
Note: Figures in the parenthesis represent percentages

The table 6.41 shows improvement in the knowledge of the people. 83 per cent respondents opined that the ground water was recharged, 76.1 per cent learnt about water flow in the region, 84.1 per cent knowledge wetland functions, 71.6 per cent about flood risks, 78.4 per cent about water qualities, 85.2 per cent about drought risks and around 91 per cent opined that wild life habitats improved. Only a limited number of respondents expressed their ignorance.

6.4.19. Production and Socio-Economic Benefits

The information on whether production increased through watershed and accrued socio-economic benefits has been elicited and presented in the table 6.42.
<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Status</th>
<th>No. of Respondents</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Know</td>
<td>Do not Know</td>
</tr>
<tr>
<td>1</td>
<td>Increased crop yield</td>
<td>150 (85.2)</td>
<td>26 (14.8)</td>
</tr>
<tr>
<td>2</td>
<td>Increased fodder production</td>
<td>139 (79.0)</td>
<td>37 (21.0)</td>
</tr>
<tr>
<td>3</td>
<td>Increased animal production</td>
<td>140 (79.5)</td>
<td>36 (20.5)</td>
</tr>
<tr>
<td>4</td>
<td>Increased wood production</td>
<td>118 (67.0)</td>
<td>58 (33.0)</td>
</tr>
<tr>
<td>5</td>
<td>Reduced demand for irrigation water</td>
<td>133 (75.6)</td>
<td>43 (24.4)</td>
</tr>
<tr>
<td>6</td>
<td>Increase demand for irrigation water</td>
<td>137 (77.8)</td>
<td>39 (22.2)</td>
</tr>
<tr>
<td>7</td>
<td>Increase production area</td>
<td>146 (83.0)</td>
<td>30 (17.0)</td>
</tr>
</tbody>
</table>

Source: Primary data  
Note: Figures in the parenthesis represent percentages

It is observed from the table 6.42 that 85.2 per cent opined that crop yield increased, 79 percent about fodder production, 80 per cent about animal production, 67 per cent about wood production, 76 per cent felt that demand for irrigation water decreased, 78 per cent learnt about increased demand for irrigation water and finally 83 per cent of the respondents opined that production area is increased. On the contrary a limited number of respondents expressed their ignorance in this regard.
### 6.4.20 Problems Perceived by the Farmers

The information on the problems faced by the farmers is elicited and the details are presented in the table 6.43.

**Table 6.43**

Problems of the Farmers

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Constraints</th>
<th>No. of Respondents</th>
<th>Percentage</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Failure of crops due to delay/no rains</td>
<td>170</td>
<td>96.6</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Problems of pest and diseases</td>
<td>162</td>
<td>92.0</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>High cost of seeds, fertilizer and pesticides</td>
<td>154</td>
<td>87.5</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Recommended soil and moisture conservation practices are risk and high cost involved.</td>
<td>141</td>
<td>80.1</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Non-availability of quality and adequate quantity of seeds</td>
<td>133</td>
<td>75.6</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>High initial Investment</td>
<td>131</td>
<td>74.4</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Lack of market</td>
<td>126</td>
<td>71.6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Small and land holdings</td>
<td>124</td>
<td>70.4</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Soil fertility variation</td>
<td>115</td>
<td>65.3</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Lack of proper dry land horticulture practices</td>
<td>109</td>
<td>61.9</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>Lack of technical guidance</td>
<td>106</td>
<td>60.2</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>Lack of good training facilities</td>
<td>95</td>
<td>54.0</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>Non-availability of credit</td>
<td>93</td>
<td>52.8</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>Difficulty in construction of major soil conservation structures</td>
<td>90</td>
<td>51.1</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>Lack of cooperation from fellow farmers</td>
<td>75</td>
<td>42.6</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>Non-availability of improved farm implements suited to dry lands</td>
<td>71</td>
<td>40.3</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>Lack of transport</td>
<td>49</td>
<td>27.8</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>Lack of power</td>
<td>47</td>
<td>26.7</td>
<td>18</td>
</tr>
</tbody>
</table>

*Source: Primary data*

*Multiple responses were allowed (*n*=176)
It is noted that after the introduction of watershed in their respective villages, farmers were fully happy and lived comfortably. They still faced some problems. An attempt is made to understand the problems faced by the farmers after the launch of watershed programme. The table records 18 problems as mentioned by the farmers and are ranked from 1 to 18 depending on the number of respondents expressing their opinion.

A cursory glance, at the above table 6.43 clearly indicates that the introduction of watershed programme did not completely remove the problems experienced by the farmers. Probably the intensity of the problems was less in the post watershed programme. Lack of sufficient rainfall (96.6 per cent) was the top most problem perceived by the farmers followed by 92 per cent of the farmers facing the problems of pests and diseases. High cost of seed, fertilizer and pesticides (87.5 per cent) difficulty in practicing recommended soil and moisture conservation practices due to the involvement of high risk and cost (80.1 per cent), non-availability of quality and quantity of seeds (75.6 per cent), high initial investment (74.4 per cent), lack of market (71.6 per cent), small land holdings (70.4 per cent), were considered as some of the constraints that were recognized by majority of the farmers (more than 70 per cent) during the post-watershed programme.

Further, more than 60 per cent of the farmers faced the problem of soil fertility variation, lack of proper dry land horticulture practices, lack of technical guidance. Lack of good training facilities, non-availability of credit, difficulty in construction of major soil conservation structures, lack of cooperation from fellow farmers and non-availability of improved farm implements suited to dry lands were the problems faced by more than 40 per cent of the farmers. Lack of transport and power were the problems faced by around 20 per cent of the farmers. It is clear that even after the introduction of watershed programme many of the pre-watershed problems still continue to bother the farmers, but with less intensity.
6.4.21 Suggestions of the Respondents

Watershed programme is beneficial for the respondents. Yet the farmers offered some suggestions for the better implementation of the watershed and to get good yield and are presented in the table 6.44.

Table 6.44
Suggestions Offered by Farmers

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Suggestions offered by farmers</th>
<th>No. of Respondents</th>
<th>Percentage</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remuneration Prices for farm produce</td>
<td>165</td>
<td>93.7</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Supply of drought, pest and disease resistant seeds</td>
<td>156</td>
<td>88.6</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Establishment of cloud Seeding facility</td>
<td>154</td>
<td>87.5</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Subsidy for the purchase of seeds, fertilizer and pesticides</td>
<td>148</td>
<td>84.0</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Financial assistance for soil and moisture conservation measures.</td>
<td>146</td>
<td>82.9</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Bunding to cover entire area</td>
<td>143</td>
<td>81.2</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Provision of long term loans</td>
<td>141</td>
<td>80.1</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>More land development programme</td>
<td>138</td>
<td>78.4</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Proper construction of conservation structures</td>
<td>137</td>
<td>77.8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Financial assistance to meet high initial costs</td>
<td>132</td>
<td>75.0</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>Watershed should benefit more of small and marginal farmers</td>
<td>131</td>
<td>74.4</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>Technical guidance in the construction of soil and moisture conservation practice</td>
<td>129</td>
<td>73.3</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>Provision of facilities for agro-forestry</td>
<td>115</td>
<td>65.3</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>Proper functioning of co-operative societies</td>
<td>110</td>
<td>62.5</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>Creating more interest in knowledge about the programme</td>
<td>106</td>
<td>60.2</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Primary data
Multiple responses were allowed (* n= 176)
From the above table, remuneration prices for farm produce (1st rank), supply of drought, pest and disease resistant variety of seed (2nd rank), establishment of cloud seeding facility (3rd rank), provision of subsidy facilities for seeds, fertilizer and pesticides (4th rank), financial assistance for soil and moisture conservation practices (5th rank), bunding to cover entire area (6th the rank), provision of long term loans (7th rank), measures to take up land development programmes (8th rank), proper construction of conservation structures (9th rank), financial assistance to meet high initial costs (10th rank), watershed should benefit more of small and marginal farmers (11th rank), technical guidance in construction of soil and moisture conservation practices (12th rank), provision of facilities for agro-forestry (13th rank), proper functioning of co-operative societies (14th rank) and creating interest and knowledge about the programme (15th rank) are the suggestions given by the farmers.

The RASS as well as the state and central governments shall take necessary step to resolve these problems by supporting the farmers economically and also socially. Then only India can live in villages' as dreamt by the Mahatma.

HYPOTHESES

The present study postulated tested the following Null Hypotheses.

2. There is no growth and impact of RASS promoted SHGs and RASS managed watersheds on the socio-economic conditions of the sample beneficiaries in the study area.

The above hypothesis is rejected

In SHGs, the decision making role of women on certain important domestic issues on education of children (Table 5.23), greatly like savings (Table 5.24), social status (Table 5.26) of women beneficiaries. Moreover, in case of watershed management, participation in extension education activities (Table 6.27) and improved socio-economic conditions (Table 6.42). Hence, the null hypothesis is rejected and the alternate hypothesis that "There is great growth and impact of RASS promoted SHGs and managed Watershed on the socio-economic conditions of the sample beneficiaries in the study area" is accepted.
Chapter I

INTRODUCTION

Cancer is a major worldwide health problem, representing the second leading cause of death worldwide. Improvements in treatment and prevention have led to a decrease in cancer deaths, but the number of new diagnoses continues to rise. According to World Health Organization (WHO) information, it is estimated that there will be 12 million deaths from cancer in 2030. Cancer, medically called a malignant neoplasm, is a term for a large group of different diseases. Normal cells in the body follow an orderly path of growth, division, and death when this process breaks down, cancer begins to form. There are nearly 200 different types of cancers each named for the organ or type of cell from which it originates. Among which colon, stomach, lung, liver and breast cancer cause the most cancer deaths each year.

The body is made up of various types of cells. These cells grow and divide in a controlled way to produce more cells (Figure 1a). As they are necessary to keep the body healthy. When cells are turn into old or injured, they die and replaced with new cells. However, sometimes this systematic process goes erroneous. The genetic material (DNA) of a cell can turn into damaged or altered, producing mutations that affect the normal cell growth and division (Figure 1b). If cells divide when new cells not needed, they form a mass of excess tissue called a tumour that could be benign or malignant. Benign tumors are not cancer and do not spread to the other parts of the body and they are seldom a threat to life. Malignant tumors are cancerous and they have inclination to spread, occupy and destroy nearby tissues as well as organs. Cancer cells can also smash away from a malignant tumor and travel through the bloodstream (leukemia) or the lymphatic system (lymphoma) to form new tumors in other parts of the body is called metastasis. Diagnosis of cancer has been improved greatly in modern times owing to treatment advances and early detection programs. However, even though survival rates have improved, cancer remains the second top cause of death in the United States and major public health problem in the other developed countries. The rate of its induction all over the world is increasing every year and making it a challenging area for major focus for both physicians as well as scientists.
3. There is no significant impact on the income generation, employment and asset creation of sample beneficiaries of RASS promoted SHGs and Watershed in the study area.

The above hypothesis is rejected

After joining the SGHs funded by RASS, the income (Table 5.36), employment (Table 5.35), expenditure (Table 5.37) on food, education, clothing (Table 5.38) have been increased. Even in case of Watershed programme, employment (Table 6.24), income (Table 6.25), savings (Table 6.26) have been increased and the paired ‘t’ test (Table 6.40) confirmed that the income generation, employment and asset creation of sample beneficiaries of RASS promoted SHGs and Watershed in the study area have been increased. Hence the null hypothesis “There is no significant impact on the income generation, employment and asset creation of sample beneficiaries of RASS promoted SHGs and Watershed in the study area is rejected and the alternate hypothesis that “There is significant impact on the income generation, employment and asset creation of sample beneficiaries of RASS promoted SHGs and Watershed in the study area” is accepted.
CONCLUSION

The present chapter dealt with the objectives of the watershed programmes, background, social composition, land holding pattern, specific problems addressed, socio-economic, demographic background of the respondents improving the ground water level, overall change in the cropping pattern and improvement in the crop yields and the end results in the selected four projects where the RASS has launched watershed programme. Thummachenupalli watershed, Bodireddigariipalli Watershed, Mellacheruvu watershed and Valasareddigariipalli watersheds have been evaluated and the socio-economic conditions were improved after joining the watershed programme. More than 60 per cent of the farmers faced the problem of soil fertility variation, lack of proper dry land horticulture practices, lack of technical guidance. Lack of good training facilities, non-availability of credit, difficulty in construction of major soil conservation structures, lack of cooperation from fellow farmers and non-availability of improved farm implements suited to dry lands were the problems faced by more than 40 per cent of the farmers.

The RASS as well as the state and central governments shall take necessary step to resolve these problems by supporting the farmers economically and also socially. Then only India can live in villages’ as dreamt by the Mahatma.
Chapter - VII

Summary and Conclusions
The growth of population and the development of complex socio-economic problems, the responsibility of undertaking social welfare services and economic development programmes fall largely on the institution of state in every society. India is predominantly rural and rural areas are relatively backward and undeveloped. Rural people are poor and the development of the country cannot be surmised without developing rural areas and improving the economic status of the rural people. The rural backwardness and rural poverty led to myriad imbalances in regional development and income inequalities. Nevertheless, the rural areas are the backbone of Indian economy. Hence, rural development has been come to the fore. The Government of India has accorded copious importance to rural development in all its five-year plans and allocated funds liberally. With a view to develop the rural areas, the Government has undertaken numerous welfare programmes and poverty alleviation has become the prime concern. The Government is committed to improve the economic standards of the rural people. But, the programmes of Governments are not so effective in poverty alleviation. The reasons may be many and varied. The Government’s tops down approach generally concentrates on providing food, services or assets, rather than enabling people to do more for themselves. Government policies and programmes are not very much favourable to the poor as they are still treated as passive recipients and humble beneficiaries even after the formulation of Swarnajayanthi Gram Swarozgar Yojana (SGSY).

The Government of India recognized the importance of NGOs and hence is extending its considerable support. The NGOs’ works are quoted as Noble and Yeoman Services. The NGOs have emerged as a third sector in the country and the rest of the world, next to the Government and the corporate sector. The NGOs have taken up every activity in the field of rural development. What the government could not do and what corporate sector did not do, have been achieved by various voluntary organizations. NGOs may differ in their ideologies, be it Gandhian, Christian, Leftist, Ramakrishna’s but in all contexts, NGOs keep people as their primary concern. The success of NGOs can be attributed to their commitment and bottom up approach. The success of NGOs made the government recognize their services in the field of rural development. So, the Government is encouraging the voluntary sector and relying on it in implementing its programmes targeting the rural poor. The number of activities allotted to voluntary sector is on the increase over the years. This indicates the very
success of voluntary sector in our country. The remarkable achievements of some NGOs even prompted the foreign donors to extend their liberal financial assistance. NGOs have done spectacular works in the field of community health, agriculture, horticulture, social forestry, water shed development, animal husbandry, small and cottage industries, adult education, community organization, Sangam formation and promotion of SHGs. Many NGOs have joined debates of such issues as the debt crisis, international trade, structural adjustment, the environment, women in development and peace. They often employ economists to monitor such matters and produce detailed reports as well as campaigning materials.

People in NGO supported areas are in a better position, economically, socially and politically than people in NGO absent areas. This speaks the volume of the success of NGOs in improving the socio-economic conditions of the rural poor. The corporate sector is also involved in voluntary work. The assistance is extended to the needy people through the ‘Trusts’. The big industrialists have formed Trusts and spending sizeable amounts on the welfare activities targeting the poor. Voluntary work is also done by rich and influential philanthropic individuals in the society. They have formed trusts and are contributing liberally to them. They are taking up many welfare activities in the interest of the poor. NGOs are deeply involved in the activity of micro-finance. This financial assistance has helped many a poor in the rural areas. The activity of micro-finance helped many in the rural areas to improve their economic conditions.

Voluntary organization is a group of persons organized on the basis of voluntary membership without state control for the furtherance of some common interests of its members. The term voluntary action means private action, action not under the direction of any authority wielding the power of the state. Lord Beveridge, who laid foundation for scientific voluntary action in Britain, considers all such private actions, outside the purview of the state, in the service of mankind as Voluntary action. The persons who take part in voluntary action without any remuneration for their service have been considered as ‘Voluntary workers’. The institution or group formed by these voluntary workers is regarded ‘Voluntary organization’. Voluntary organizations are non-profit making agencies that are constituted with a vision by a group of like-minded people, committed for the upliftment of the poor, marginalized, unprivileged, underprivileged, impoverished,
downtrodden and the needy and they are closer and accessible to the target groups, flexible in administration, quicker in decision making, timely in action, facilitating the people towards self-reliance ensuring their fullest participation in the whole process of development. The voluntary organization is the one which, whether its workers are paid or unpaid and is initiated and governed by its own members without external control. Voluntary organizations are otherwise called NGOs (Non-Governmental Organizations). The word NGO has been much more used in all the contexts by the U.N. Organizations, World Bank funding agencies abroad, the resource agencies within the country, writers and various government departments.

The NGOs were allowed to play a greater role in the implementation of poverty alleviation programmes during the Eighth Five Year plan. The Government encouraged the NGOs to get the legitimacy to work as partners of the government in the better implementation of the rural development programmes. More emphasis was on the participation of the people, educating and organizing the people. The Council for Advancement of People’s Action and Rural Technology (CAPART) was established in 1986, to encourage the voluntary organizations (NGOs).

Rural development means betterment and improvement in the quality of the life of the people, engineered for the poor and the marginalized with their active participation and the fullest cooperation. Today, NGOs position is not a bed of roses. There are many challenges before them. They must courageously take up the hard tasks to ensure the preferred and sustained rural development. A mutual learning culture between the Government and NGOs should be developed and a collaborative partnership approach facilitates the achievement of development objectives for which both of them work. The Government is revising or revitalizing their existing programmes for formulating new ones from the various experiences of successful voluntary organizations. The partnership has to be managed for mutual benefit.

Over the years, the role of NGOs in development has been sumptuously significant, particularly in the developing countries. In India they are found in almost all the areas of human activity. The activities are virtually multiplying in geometrical progression. They have taken up an array of roles as activists of environmental protection, strong advocates of human rights, consumer protectionists and the like. In the areas of welfare, education, health, sanitation, environmental protection, human
rights and social justice, the sector has carved out a niche for itself. In fact, the
activities of the sector have influenced significantly the government policies and
programmes. In the context of Indian economy, failure of public sector and limitation
on private sector have necessitated evolving alternative arrangements for raising some
organizations like Non-Governmental Organizations (NGOs) or Voluntary
Organizations (VOs). In recent times there are many NGOs which have not only
grown in size but have also developed infrastructures like research, training and
demonstration. The NGOs are being persuaded to take up the responsibility of welfare
and development of the people at the grass root level with financial assistance from
government. Different approaches relating to development have been adopted by
various NGOs successfully and the governments have recognized the role of NGOs
and slowly involved them in planning the development strategies. Majority of NGOs
that have emerged in the last 100 years clearly served the interests of their
governments abroad by undertaking various cultural and relief activities.
Nevertheless, this fact does not necessarily compromise the quality of NGO activities,
at least on the surface. By the end of 1980s, over 2200 NGOs received donations and
grants from industrialized countries and transmitted them to empower private non-
profits institutions of the third world countries.

Sustainability of SHGs is an immensely important issue in Andhra Pradesh,
because the state has adopted NGOs sponsored SHGs on a large scale compared to
other states in the country as an important means to reduce poverty. The widespread
variations in geographical and socio-economic characteristics in the state felt the need
for more number of comprehensive and micro level studies. The importance of
watershed development by NGOs is well recognized by all the development experts.
Watershed programme is an integrated one addressing the problems in rain fed areas.
It addresses the environmental ecological problems like deforestation, over
exploitation of water and importantly it seeks to convert unsustainable agriculture to
sustainable agriculture besides tackling unemployment and under-employment faced
by the farmers as well as landless people. Of all the beneficiaries, the most benefited
under watershed programme are the farmers of all types, like large, medium and small
farmers. Watershed brings those many favours like improvement in the ground water
levels, restoration of eroded soil, crop rotation, improved agricultural technology,
increased and improved animal husbandry, more green fodder to their milch and
draught cattle. Of the many organizations, RASS is the most comprehensive NGO in operation since 1981 and has been working towards the upliftment of the downtrodden in various fields. It is a nodal agency of the CAPART and is monitoring the various programmes being implemented for the welfare of the people. Among the major areas it is assisting are Balwadis, Creches, Communities development, Self-Help Groups, Watershed management etc., for poverty eradication. Moreover, the programmes like SHGs and Watershed programme are gaining grounds.

In the present micro level study, the impact of RASS promoted SHGs and Watershed programme has been examined in improving the living conditions of the rural people in Chittoor district. The main focus of the study is to make an in-depth analysis of the impact of SHGs and Watershed programme on employment, income generation and asset creation of selected beneficiary households in the study area. This type of analytical studies is necessary to quantify the role of NGOs in improving the living conditions of the rural people. Hence, the researcher intends to pursue the research entitled “Role of Non-Governmental Organizations in Improving the Living Standards of Rural People in Chittoor district”.

The multi-stage random sampling method has been adopted in the present study. The study is confined only to the rural people who are benefitted from the SHGs and the watershed schemes implemented by the RASS in Chittoor district. In the first stage, the revenue mandals have been selected on the basis of the good performance of the SHGs, 4 mandals out of 16 mandals supported by RASS have been chosen randomly. There are 960 SHGs functioning in these 4 mandals, 5 per cent of the SHGs have been selected from the 4 sample mandals. Later, 48 sample SHGs were selected randomly from the 960 SHGs and 50 per cent of the women members have been taken from each SHG based on the random sampling. Thus, the total sample size of women beneficiaries of SHGs becomes 240.

There are 18 Watersheds being maintained by the RASS in Chittoor district. Out of them, only 4 projects have been effectively run by the RASS. Hence, 4 projects (Thummachenupalli, Bodireddigaripalli, Mellacheruvu and Valasareddigariipalli) have been taken for the present study. All the above projects are organized in the western part of the district. The sampling design adopted for the study was multi-stage random sampling with watershed farmer families as the first stage unit and sample
beneficiaries of watershed as the second stage unit. From each project, 5 per cent of watershed sample beneficiaries were selected randomly. Among the beneficiaries, 42 from Thumachenupalli project, 64 from Bodireddigaripalli, 44 from Mellachervu and 26 from Valasareddigaripalli Watershed were selected. On the whole, this study covers 176 watershed beneficiaries.

Above all, the study covers 416 sample households, representing 240 SHGs beneficiary households and 176 representing watershed beneficiary farmers.

NGOs or Voluntary Organizations are not a new phenomenon and the voluntary action is very ancient. According to Inamdar, "During ancient and medieval times, voluntarism operated freely and exclusively in the fields of education, medicine, cultural promotion and even acted as succour in crises like droughts, floods, epidemics and foreign invasions" (1987). In the early years of 19th century, voluntary agencies provided services to the under-privileged and weaker sections of the society. The areas of operation were largely in the fields of religion and social reforms. Raja Rammohan Roy (1772 -1833), Ishwar Chandra Vidyasagar (1820-1891), Sasi Pada Banarjee (1842-1925), Keshab Chandra Sen (1838-1884), Swami Dayanand Saraswati (1824-1883), Swami Vivekanand (1863-1902), Mahatma Phule (1827-1888), Pandit Ramabai (1858-1922), Maharshi Karve (1858-1962), Sir Sayyed Ahmed Khan (1817-1898), Behramji Malbari (1853-1912) were the people who worked with dedication for the removal of caste restrictions, improving conditions of widows, women education, orphans and destitute women. In the later part of 19th century, Christian Missioners also did great pioneering work in the field of social welfare.

They also took interest in spreading education among women, tribals and others, and in improving their health and living conditions. In the early decades of 20th century, besides relief and rehabilitation programmes in times of natural calamities like earthquakes, floods and famines, NGOs were also involved in various fields like education, health and labour welfare. The government undertook welfare schemes under various plans and policies, besides encouraging voluntary organizations to undertake social welfare programmes under the grant-in-aid programme and set up autonomous bodies like Central Social Welfare Board, Indian Council of Social Welfare. Some of the institutions started by Mahatma Gandhi and
by the wives of the officers with the support of the British Government and those started by the Indian philanthropists, Christian Missionaries, Ramakrishna Mission continued to function. Although national organizations like Indian Red Cross Society, Young Men’s Christian Association (YMCA), Young Women’s Christian Association (YWCA), Harijan Sevak Sanghe were functioning, it was around this time that several all-India level voluntary organizations such as Kasturba Gandhi National Memorial Trust, Indian Council of Child Welfare, Youth Hostel Association and Association of Social Health were set up (1999). During the later half of the 1970s, community organizations gained greater momentum. Also a radical trend emerged, with social action groups taking the view that poverty is a structural phenomenon which had to be tackled head-on through the active mobilization of the rural poor. With liberal foreign funding, social action groups proliferated throughout the late 1970s and early 1980s, and established themselves as the dominant type of NGOs in some states, notably Tamil Nadu and Bihar in sharp contrast to the programme-focused approaches which had found favour from the 1960s. From the mid-1980s, a further trend emerged within the NGO movement, emphasizing the importance of professional approach based on sound management, planning and co-ordination. People’s participation in development was much pronounced in 1980s.

A parallel development was the creation of resource agencies which work directly with the poor and also provide support services to other NGOs in the form of training, evaluation and documentation. In the year 1983 a new organization called Council for Advancement of Rural Technologies (CART) was set up to improve conditions in rural areas. In 1986, CART was merged with People Action for Development in India (PADI) to form Council for the Advancement of People’s Action and Rural Technology (CAPART) and its main thrust was in the areas of employment, income generation, and creation of community assets and fulfilment of basic needs like housing and drinking water.

In 1990s empowerment approach gained momentum. NGOs began to perform advocacy and lobbying in order to meet the challenges and threats of macro forces towards the rural poor and marginalized. As NGOs have grown in size and influence, their activities have brought them into closer contact with the Government. The NGOs are recognized by the government in rural reconstruction work. They received explicit recognition from the government in the later half of 1980s. The Seventh Five
As cancer is a complex set of diseases each cancer is unique in the way it grows and develops, its chances of spreading, the way it affects the body. Several factors, including location and by the type of cell that the tumor resembles and is therefore presumed to be the origin of the tumor. These types include:

- **Carcinoma** - Carcinoma is a malignant neoplasm of epithelial origin. It is a tumor that arises in the tissues that line the body's organs like the nose, the colon, the penis, breasts, prostate, urinary bladder, and the ureter. About 80% of all cancer cases are carcinomas.

- **Sarcoma** - Sarcomas are tumors that originate in bone, muscle, cartilage fibrous tissue or fat (connective tissues). Ewing sarcoma (Family of tumors) and Kaposi's sarcoma are the common types of sarcomas.

- **Lymphoma and leukemia** - These two classes of cancer arise from hematopoietic (blood-forming) cells that leave the marrow and tend to mature in the lymph nodes and blood, respectively. When leukemia develops, the body produces a large number of abnormal blood cells. In most types of leukemia, the abnormal cells are white blood cells.

- **Myeloma** - Cancers that begin in the cells of the immune system.
Year Plan (1986-1990) emphasized the involvement of voluntary agencies in various proposed projects. The Eighth Plan further gave credit to NGOs and encouraged them to participate in the innovative projects like Agro Climatic Regional Planning (ACRP), the Watershed Development Project under DPAP etc. The Ninth Plan envisaged involving NGOs right from the planning process. In 1999 the SGSY scheme had been launched merging various Rural Development Schemes like IRDP, JRY etc., Group-lending remains the major thrust. As NGOs have done pioneering work in SHG promotion, they are being extensively involved in influencing the SHGs for Education, Health, Human resource and Natural resource management.

The India NGO Awards is a unique national competition that celebrates and rewards the best Non-Governmental Organisations by showcasing examples of best practice and successful resource mobilisation. The awards focus on professional management, innovation in local resource mobilisation, and the effectiveness of the organisation’s activities in improving the lives of the people they serve. Initially launched in partnership with Jeet Khemka Foundation, the 2009-11 India NGO Awards programme was funded by the Rockefeller Foundation. Subsequently the India NGO Awards 2012-13 was jointly funded by the Rockefeller Foundation and Edel Give Foundation. Now in their seventh year, the Awards are some of the most coveted honours in the social sector and honour NGOs which have adopted good standards and practices and are accountable and transparent in their operations.

Chittoor district had a population of 4,174,064 (2011 Census) of which males and females were 2,090,204 and 2,083,860 respectively. Chittoor District population constituted 4.94 per cent of the state’s population. There was a growth of 11.43 per cent in the population in 2011 as compared to the population in 2001. The district recorded an increase of 14.86 per cent to its population compared to 1991. Thus, population growth slowed down in the past decade. The Census data shows that the population density of Chittoor district in 2011 was 275 persons per sq. km, which showed an increase from 247 persons per sq.km, in 2001. Chittoor district is spread over an area of 15,152 sq. km. Average literacy rate of Chittoor in 2011 was 71.53 per cent compared to 66.77 per cent in 2001. The male and female literacy rates are 79.83 per cent and 63.28 per cent, respectively, while the corresponding figures for 2001 census stood at 77.62 per cent and 55.78 per cent. With regard to sex ratio in Chittoor district, it stood at 997 females per 1000 males in 2011, as compared to 2001 census.
figure of 982. The sex ratio in Chittoor district is higher when compared to the average sex ratio of India at 940 females per 1000 males as per 2011 census and the state average as well.

The climate of the district is considered to be dry. The upland of Madanapalli Revenue Division, consisting of 31 Mandals, is comparatively cooler than the eastern Mandals except Chittoor where the climate is moderate. Winter weather in the district commences from the end of November. December and January are the coldest months wherein the mean maximum temperature will be around 26 degrees Celsius and the mean minimum temperature will be around 15.2 degrees Celsius. The period between March and June is summer. May is the hottest month with the mean daily maximum temperature being above 40 degrees. The climate of the district is dry and healthy.

The total geographical area of the district is 15,15,100 hectares. According to 2010-2011 statistics, the current fallows constitute 9.48 per cent, while the net area sown is reported to be 25.03 per cent, the total cropped area accounts for 28.88 per cent of the total area. However, the forest area occupies 29.83 per cent of geographical area. Land put to non-agriculture use is 10.29 per cent of the total area and cultivable waste is 3.04 per cent.

All the rivers that are there in the district are non-perennial. They remain dry for a major part of the year. Of these rivers, the river Ponna which is a tributary of the Palar, rises in the erstwhile Chittoor Taluk and flows towards the south and joins the Palar in Tamil Nadu. The Swarnamukhi, another important river, which rises in the Eastern Ghats in erstwhile Chandragiri taluk, has its course throughout the Mandals of the taluk and part of the erstwhile Srikalahasti taluk and ultimately flows into Nellore district. Other rivers of the district are the Kusasthali, the Bheema, the Bahuda, the Pincha, the Kalyani, the Araniyar and the Pedderu which flow in different Mandals of the district. Besides the above rivers, there are a number of small hill streams too.

There are eight medium irrigation projects in the district, viz. Swarnamuki, Araniyar, Mallimadugu, Kalangi, Bahuda, Siddalagandi, Krishnapuram reservoir and Pedderu. The total registered ayacut under the above eight projects is 15310 hectares. There are 7512 minor irrigation tanks with a total ayacut of 54336.14 hectares. The district occupies a prominent place in the number of irrigation wells totalling 116239.
Agriculture is the mainstay of the people, providing livelihood for about 84 per cent of the working population, while the secondary sectors provide employment to around 2 per cent of the workforce. The workforce under different sectors is presented in the table 4.5. It clearly indicates that in primary sector 5.28 lakh persons (35.25 per cent) are cultivators and 42.07 per cent are agricultural labourers accounting for 30.92 per cent of primary sector. The secondary sector including household industry, manufacturing and construction comprise 0.69 lakh persons accounting for 1.85 per cent.

The total cropped area in the district is 4, 37,629 hectares (28.88 per cent) of the total geographical area of 15, 15,100 hectares. Area sown more than once in a year is 58,361 hectares (3.85 per cent), forest area is 4, 52,018 hectares (29.83 per cent) and barren and uncultivable land is 1,54,389 hectares (10.19 per cent). Land put to non-agricultural use is 1,55,845 hectares forming 10.29 per cent of total land. Cultivable waste land is 46,095 hectares (3.04 per cent), permanent pastures and other grazing lands are 33,371 hectares (2.20 per cent), land under miscellaneous tree crops and groves not included in the net area sown is occupying 29,500 hectares (1.95 per cent) and current fallow lands occupy are 1,43,651 hectares (9.48 per cent). Other fallow lands are 1,20,963 hectares (7.98 per cent) and net area sown in the study area occupies 3,79,268 hectares (25.03 per cent) out of the total area of 15,15,100 hectares. The principal crops of the district are ragi, paddy, jowar, small millets, bajra and cereals and millets. In both kharif and rabi seasons, as per the 2010-11 statistics, paddy crop was cultivated in 61577 hectares of land with 147971 tons of production and yielded 2403 kg per hectare. Groundnut crop yielded 2345 kg per hectare from the 161957 hectares of land and produced 31332 tons. Jawar and bajra were integrated in 4453 hectares of land and produced 6734 tonnes. Total oil seeds irrigated in the district were 39264 hectares; total non-food crops irrigated was 18470 hectares. Total cropped area irrigated was 1,98,070 hectares and net area irrigated was 1,58,806 hectares.

Sugarcane is grown in an area of 49,927 hectares with a production of 14, 44,806 metric tonnes per annum. There are six sugar factories in the district and they are located at Chittoor, Gajulamandyam, Punganur, Nindra, B.N.Kandriga and Nelovoy. As a corollary to the above sugar factories, two distilleries have come up in the district, one at Chittoor and the other at Gajulamandyam and one confectionery
factory, popularly known as Nutrine, is at Chittoor. There is an ample scope for further downstream industries based on sugar alcohol besides a newsprint factory.

RASHTRIYA SEVA SAMITHI (RASS)

God blesses those who serve the society sincerely without anticipating any returns. The human beings and institutions that undertake some service will be considered as God’s work and they help in removing misery and in promoting welfare. In India, many Non-Governmental Organizations (NGOs) have been undertaking service activities over a long period for the benefit of the weaker sections of the society. Rashtriya Seva Samithi (RASS) (Formerly Rayalaseema Seva Samithi) is a prominent and premier institution in Rayalaseema region extending services to the needy sections of the society. The RASS promotes the well-being of the whole family following Swamy Vivekananda’s dictum and Gandhian vision that development of women transforms the entire family. Thus, it rightly encouraged and emphasized in its development approach of household of family based programmes.

Rashtriya Seva Samithi was established in 1981, with its registered office at the famous temple (Lord Venkateswara) town of Tirupati in Chittoor district of Andhra Pradesh, South India, with the inspiration of Prof. N.G. Rangaji, a renowned parliamentarian, freedom fighter and constructive social worker, under the direction and leadership of late Sri P. Rajagopal Naidu, a reputed parliamentarian while its General Secretary Dr. G.Munirathnam organized and supervised every activity of RASS and nurtured it with all care.

RASS operates in four states, i.e. Andhra Pradesh, Orissa, Tamil Nadu and Delhi. RASS is currently implementing 42 different developmental programmes with the funding support from Government of India and International donor agencies. The emphasis of most of these developmental programmes is on women and child development. It has a programme presence in over 3540 villages / habitations. In about 55 villages, it has undertaken a package of integrated development services. The experience of RASS with women empowerment programmes through Micro credit is ten years old, but fairly intensive. It has promoted the concept of micro credit and self-help, women in general and the women of disadvantaged sections through Community Based Organizations (CBOs) and micro credit. This experiment soon proved to be a phenomenal success in creating awareness on gender related issues;
besides generating the savings of the poor women for meeting their credit needs. The initial success in women empowerment programmes has led RASS to propagate the concept, by organising awareness programmes, and performing consultancy and advisory work. Thus in 1994 RASS took up the responsibility of organising training, workshops, and meetings for the stake holders who are involved in women empowerment programmes.

Various programmes have been planned and implemented through the RASS organization. The programmes undertaken by the RASS for development and improving living standards of rural people in its area operation are as follow:

1) Development of Children, 2) Programmes of Women Development, 3) Care of the Aged People, 4) Care of the Differently Abled People, 5) Health Programmes, 6) Human Resource Development, 7) Development of Rural Infrastructure, 8) NGOs Networking, 9) Promotion of SHG concept and 10) Implementation of Watershed Programme. Self Help Group (SHG) is a small voluntary association of poor people, preferably from the same socioeconomic background. They come together for the purpose of solving their common problems through self-help and mutual help. The SHG promotes small savings among its members. The savings are kept with a bank. This common fund will be in the name of the SHG. Usually, the number of members in one SHG, does not exceed twenty.

After watershed there is reduce in daily commuters and minimized seasonal migration. We can observe nearly 25 per cent of the reduce in the migration as the push factors are minimized and there are enough wage earning opportunities through watershed activities and agricultural activities has been increased.
FINDINGS

SELF-HELP GROUPS

1. Gat of the total 240 selected for the study, the highest number of beneficiaries, i.e. 111(46.3 per cent) are in the age group between 26 and 40 years and the lowest of 36(15.0 per cent) are in the age group of 56 years and above.

2. Ninety-six (40.0 per cent) beneficiaries belong to BC, followed by 65(27.1 per cent) OC, 47(19.6 per cent) SCs and remaining 32(13.3 per cent) to ST Community.

3. Majority of beneficiaries are Hindus, i.e. 205(85.1 per cent) and the lowest are Muslims, i.e. 27(11.2 per cent), Christians, i.e. 5(2.1 per cent) and others 3(1.2 per cent).

4. More than 69 per cent of beneficiaries are married and around 4 per cent are divorces.

5. In all four projects, 45.0 per cent are illiterates and the remaining are all educated. Highest number of beneficiaries i.e. 96(40.0 per cent) are agricultural labours and lowest number of beneficiaries, i.e. 21(8.8 per cent) are business women.

6. Highest number, i.e. 157(65.4 per cent) are in the nuclear family, 67(27.9 per cent) are in the joint family and the remaining 16(6.7 per cent) beneficiaries are in extended family.

7. Around 84 per cent of the respondent possess own house and more than 16 per cent do not possess own house. Around 54 per cent of the respondents have pucca house.

8. About 97 per cent of the respondents have electricity in their house and hundred percent of respondents in Mahila Kranthi and Mahila Jyothi projects have power connection.

9. More than 81 per cent of the respondents have gas connection and majority of them belong to Mahila Vani project, but still around 19 per cent do not have gas connection and majority of them (48.6 per cent) are in Mahila Jyothi project.
10. Around 68 per cent of the respondents have toilet facility in their house and majority of them are in Mahila Jyothi project. But more than 32 per cent of the respondents have no toilet facility and majority are in Mahila Kranthi project.

11. More than (77 per cent) have water taps for drinking water and majority of them belong to Mahila Vani project, while around 23 per cent do not have water taps in their village and majority of them are in Mahila Jyothi project (22.9 per cent).

12. The highest numbers of beneficiaries prefer bank loans ranging between 40,001 and 60000 rupees.

13. More than 52 per cent of the respondents have two children.

14. Highest number of beneficiaries, i.e., 131(54.6 per cent) are facing problems of lack of good prices and only 14 faced the poor quality (5.8 per cent).

15. Around 47 per cent of beneficiaries, expressed group support and the lowest number 11(4.6 per cent) beneficiaries expressed social status.

16. Majority of the beneficiaries are motivated by relatives and the lowest motivated by others.

17. Wife role is very high in taking decisions on children’s education, households savings and children’s health when compared to husband. The decision-making role shifted from husband to wives after the women joining SHG.

18. About 40 per cent of the respondents preferred RASS –SHG as it is easy to get loan, around 21 per cent preferred on account of its encouragement towards undertaking income generation activities.

19. Nearly 54 per cent of the beneficiaries joined SHGs to undertake income generating activities, more than 31 per cent joined by expecting loan and 15 per cent joined for savings.

20. More than 68 per cent of the beneficiaries preferred RASS organized SHGs and more than 28 per cent preferred Govt./DRDA organized SHGs in the study area.
21. Majority of beneficiaries (91.2 per cent) opined that meetings are conducted monthly.

22. Around 71 per cent of the beneficiaries opined that the meetings in SHGs are conducted for the purpose of sharing the views of each member to overcome their problems.

23. Out of the total beneficiaries of all the four projects, 45(18.7 per cent) beneficiaries are engaged in sheep and 42(17.5 per cent) beneficiaries are engaged in saree business.

24. In the four projects, 30(12.5 per cent) beneficiaries have debts below Rs.10,000, 115(47.9 per cent), 54(22.5 per cent) and 41(17.1 per cent) beneficiaries have debts between Rs. 10,001 and 15,000, Rs.15, 001 and 20,000, 20,001 and above respectively.

25. About 51 per cent of the beneficiaries have 241 and above employment days. It implies that RASS-SHG scheme helped the beneficiaries to get work. The increase in the number of working days is mainly responsible for increasing annual income. Increase in annual income generally may reduce the poverty position of the beneficiaries.

26. The beneficiaries before joining the SHG earned the income which was very low compared to the income earned after joining. It’s found that the beneficiaries earned more income after joining the SHG.

27. Majority of the respondents before joining SHG (33.7 per cent) have savings below Rs. 5000 and after joining SHG beneficiaries, (36.7 per cent) have savings of at Rs. 20001 and above.

28. The 't' value is significant at 1% level on food, education, treating guests, clothing, religious functions and festivals, others and total expenditure. It can be inferred that the SHGs have lot of impact on the above variables. Moreover, the 't' value is significant at 5% level on power/fuel and recreation showing the substantial impact of SHGs on these variables. On the contrary, the 't' value is insignificant on medicine and thus it can be inferred that there is no impact of SHGs on medicine.
WATERSHED PROGRAMME

29. Of all the 838 families in the project, 42 (5.0 per cent) are landless, 587 (70 per cent) are small farmers, 142 (17 per cent) are medium farmers category and 67 (8 per cent) fall under the large farmers in Thummachenupalli Watershed.

30. In Bodireddigaripalli Watershed, of all the total 1276 families in the project area, 79 (6.2 per cent) are landless, 627 (49.1 per cent) are small farmers, 395 (31 per cent) are medium farmers and 175 (13.7 per cent) fall under the large farmers category.

31. In Mellacheruvu Watershed, of all the 882 families in the project, 100 (11.4 per cent) are landless, 489 (55.4 per cent) are small farmers, 181 (20.5 per cent) are medium farmers category and 112 (12.7 per cent) fall under the large farmers category.

32. In the Valasareddigaripalli Watershed Project, of all the total 516 families in the project area, 95 (18.4 per cent) are landless, 305 (59.1 per cent) are small farmers, 83 (16.1 per cent) are medium farmers and 33 (6.4 per cent) fall under the large farmers category.

33. Of all the total 3512 families, 316 (9 per cent) are landless, 2008 (57.2 per cent) are small farmers, 801 (22.8 per cent) are medium farmers and 387 (11 per cent) fall under the large farmers category.

34. Majority of the respondents are in the age group of 26-40 years and majority of the respondents belong to BCs (42.6 per cent).

35. Around 55 per cent are Hindus followed by Minorities (23.9 per cent) and Christians (18.8 per cent). Majority of the respondents (75 per cent) are married.

36. More than 47 per cent of the respondents have primary education. Illiterates are higher in Valasareddigaripalli and graduates are higher in Thummachenupalli project.

37. More than 57 per cent of the respondents are in the nuclear family, around 36 per cent are in joint family and more than 6 per cent are in the extended family among the respondents.
Majority of the respondents have the family size of 4-6 members. Lesser number of family members is observed in Boddireddigari palli while higher number of members is in the families of Mellacheruvu project.

Around 93 per cent of the respondent possess own house and all the respondents (100 per cent) in Boddireddigari palli have own house. Majority in Mellacheruvu do not possess own house.

Among the respondents around 74 per cent have pucca house and majority of them belong to Boddireddigari palli. Around 8.5 per cent have semi-pucca house and more than 13.6 per cent have katcha house.

More than 82 per cent of respondents have tap system for drinking water supply and majority of them are in Mellacheruvu and around 18 per cent have no taps and majority are in Valasareddigari palli.

Around 96 per cent of the respondents have power connection in their house and majority are in Mellacheruvu. More than 61 per cent of the respondents got gas connection while around 39 per cent did not have gas connection.

Around 48 per cent of the respondents have toilet facility in their house and majority of the respondents belong to Boddireddigari palli. But there is no toilet facility for around 52 per cent of the respondents among the respondents and majority of them belong to Valasareddigari palli.

Around 59 per cent of the respondents are small farmers and majority of them are in Valasareddigari palli. More than 35 per cent of the respondents have farmer’s experience of 16 years and above and majority of them are in Boddireddigari palli.

Among the respondents, 34 per cent produce mangoes and majority of them belong to Valasareddigari palli.

Highest number of watershed respondents, i.e. 86(48.9 per cent) are agriculturists and lowest number of watershed respondents, i.e. 5(7.7 per cent) are non-agriculturists.

In all the selected four projects of RASS-NGO, 73(41.5 per cent) have the highest employment of 101 and 180 days of employment. It implies that watershed scheme helped the respondents to get work. The increases in the
Types of Treatment

Cancer can be treated by surgery, chemotherapy, radiation therapy, immunotherapy, monoclonal antibody therapy or other methods. The choice of therapy depends upon the location and grade of the tumor and the stage of the disease, as well as the general state of the patient. A number of experimental cancer treatments are also under development. Complete removal of the cancer without damage to the rest of the body is the goal of treatment.

- **Chemotherapy**

  It is a treatment in which chemotherapeutic agents are used to kill fast growing cancer cells. But chemotherapy can affect healthy cells that can grow. Therefore, treatment should be planned to minimize side effects. It is the most effective method of treating leukemia.

- **Surgery**

  In theory, cancers can be cured if entirely removed by surgery, but this is not always possible. When the cancer has metastasized to other parts in the body prior to surgery, complete surgical excision is usually impossible. Examples of surgical procedures for cancer include mastectomy for breast cancer and prostatectomy for prostate cancer.

- **Monoclonal Antibody Therapy**

  Immunotherapy is the use of immune mechanisms against tumors. These are used in various forms of cancer, such as breast cancer (trastuzumab/Herceptin) and leukemia (gemtuzumab ozogamicin/Mylotarg). The agents are monoclonal antibodies directed against proteins that are characteristic to the cells of the cancer in question, or cytokines that modulate the immune system's response.

- **Biological Therapy (Immunotherapy)**

  Living organisms and substances derived from living organisms are used to treat cancer in this therapy. Some biological therapies, such as vaccine or bacteria do not kill cancer cells directly, whereas other biological therapies, like antibodies or segment of genetic material, target cancer cells directly.

- **Radiation Therapy**

  Radiation therapy also called as radiotherapy, X-ray therapy, or irradiation is the use of ionizing radiation to kill cancer cells and shrink tumors. Radiation therapy can be
number of working days are mainly responsible for their increasing annual income. Increase in annual income generally reduces the poverty position of the respondents.

48. The watershed respondents before joining the watershed earned the income which was very low compared to the income earned after joining. It is found that the respondents earned more income after joining the watershed.

49. Majority of the respondents before joining watershed, i.e. 65(36.9 per cent) have savings range between Rs. 5001 and 10000 and after joining the watershed respondents 57(32.4 per cent) have savings at Rs. 20001 and above.

50. More than 56 per cent of the farmers participated regularly in kisan melas, around 52 per cent of the farmers did not participate in field days, More than 45 per cent of the farmers participated regularly in the study tours, Around 41 per cent of the farmers occasionally participated in demonstrations, More than 52 per cent of the farmers participated regularly in training programmes, 40.9 per cent occasionally participated and 6.8 per cent never participated.

51. Around 49 per cent of the farmers did not participate in visits to Research Stations, 32.9 per cent of the farmers participated regularly and 18.2 per cent occasionally, it leads to the conclusion that about 51 per cent of the farmers visited the research stations.

52. Around 60 per cent of the farmers regularly participated in group discussions, 19.9 per cent occasionally and 20.4 per cent did not participate at all. More than 79 per cent of the farmers participated in group discussions.

53. More than 80 per cent of the watershed farmers have knowledge of seven items of the soil and water conservation aspects viz., Contour cultivation, over seeding, formation of gullies, farm ponds, graded bunds, check dams and diversion channels while knowledge of the farmers is between 70 and 80 per cent in the case of fodder and fields crops, ridges and furrows, earthen bunding, vegetative bunds, Nalabund, percolation tanks and opening dead furrow.

54. More than 80 per cent of the farmers have knowledge on land smoothing or levelling, use of improved implements, fall plugging land reclamation and maximum land usage.
55. The level of participation in all these activities is highly significant at 1% level. It can be concluded that the NGO has lot of impact on the overall improvement in the participation.

56. The ‘t’ value is significant at 1% level in the crops of groundnut, sugar cane, red gram and mangoes and it infers that watershed has lot of impact on these crops. Similarly, the ‘t’ value is significant at 5 per cent level in case of tomatoes and hence watershed has substantial impact on tomato yield. On the contrary, the ‘t’ value is insignificant in case of paddy indicating that watershed has no influence on paddy crop it needs 200 mm of water for its growth.

57. The ‘t’ value is significant at 1 per cent level in case of food, religious functions and festivals, treating guests, clothing and savings. Hence it can be inferred that there is significant difference between before and after joining watershed and it shows that the watershed has lot of impact on the above aspects. Moreover, the ‘t’ value is significant at 5 per cent level in case of recreational activities, education and hence it can be inferred that there is substantial impact of watershed on education and recreational activities.

58. On the contrary, the ‘t’ value is insignificant in the case of power/fuel and medicine. Hence it can be inferred that watershed has no influence on power/fuel and medicine.

59. On the whole there is tremendous progress in the impact of watershed in respect of all the selected projects and mandals of the district. The results show that the significant level indicates a great change in the respondents after joining the watershed. It is to be concluded that the respondents of the watershed got more benefits than before joining of watershed.

60. In watershed, 85.2 per cent opined that the crop yield increased by 79 percent in fodder production, 80 per cent in animal production and 67 per cent in wood production. 76 per cent opined that demand for irrigation water decreased, 78 per cent felt increased demand for irrigation water and finally 83 per cent felt increase in production area.
SUGGESTIONS

Consequent to the discovery of certain major findings after the study, it has been the researcher's endeavour to present the observations on the problems faced in the field of rural development by the NGOs in general and RASS in particular and the following suggestions are made which could be considered top-notch important from the point of view of making rural development more effective and successful by the NGOs through SHGs and Watershed management.

From the study, it is clear that NGOs have tried to develop the rural people as well as the rural areas through SHGs and Watershed management. The SHG and Watershed membership has improved not only the economic position of the members but also their social status and role in the family. Most of the members have improved their self-confidence and decision making power and thus, it can be concluded that the SHGs and Watershed have shown profound impact on the socio-economic position of the members through income generating activities by providing micro-finance and watershed activities. This ultimately contributed for the overall development of the marginalized sections of the society in rural areas.

Here an attempt has been made to make certain suggestions to improve the situation in the light of the findings:

1. Around 55 per cent of the SHG respondents have no good prices for their products. It is very essential to search means to increase the price of the produced products.

2. Every person has worth, ability and potential. There is a need to recognize their skills, capabilities and capacities and understand their potential so as to make them catalysts in the process of improving the living conditions of the rural people. This should be undertaken by the NGOs. It is also suggested that, the NGOs are expected to select the members who are really poor and essentially require the help.

3. To improve the non-form sector activities in the rural areas, the NGOs should undertake various non-form activities to help the farmers during the off-season. Credit should be given to the farmers by the NGOs at the right time before commencement of rabi and kharif seasons.
4. Further, it is important to note that NGOs are expected to put more efforts to motivate the members of SHGs to participate actively in the field of rural development, development of rural infrastructure and rural industrialization.

5. If the leadership position of each SHG is systematically rotated among the members at an appropriate time, assuming that each members of the SHG has a leadership experience, all the members of SHG may develop leadership qualities.

6. The respondents came forward to give suggestions to improve the overall functioning of SHGs such as that people should be aware of the utilization of benefits from various activities of SHGs, loans should be given frequently with less rate of interest and there is need to provide subsidy, the repayment of loan should be flexible, need to introduce new equipment and technical skills and economic security and insurance should be provided to the members of SHGs.

7. Majority of the respondents confirmed that people are now more interested in participating in the implementation of developmental programmes particularly after they joined as members of RASS organized SHGs in community works to avail incentives provided by the government as well as RASS. They are also in favour of greater involvement of RASS. In encouraging the people to participate in developmental programmes including formation and promotion of the concept of SHG which is the need of the cases now.

8. Further, it is also suggested that, the RASS should spread their development programmes to every village and motivate the rural people to participate in the development programme. RASS should provide micro-finance frequently to the members of SHGs so that they can improve their living standards, better their economic position and decrease their debt position.
Problems Faced by the Farmers

Lack of sufficient rainfall (96.6 per cent) the top most common problem perceived by the farmers followed by 92 per cent of the farmers facing the problems of pests and diseases. High cost of seed, fertilizer and pesticides (87.5 per cent) difficulty in practicing recommended soil and moisture conservation practices due to the involvement of high risk and cost (80.1 per cent), non-availability of quality and quantity of seeds (75.6 per cent), high initial investment (74.4 per cent), lack of market (71.6 per cent), small land holdings (70.4 per cent), were considered as some of the constraints that were recognized by majority of the farmers (more than 70 per cent) during the post-watershed programme.

Suggestions from the Respondents

The respondents advanced a few suggestions to solve some of their problems to reap better results from the watershed programme. They are, remuneration prices for farm produce (1st rank), supply of drought, pest and disease resistant variety of seed (2nd rank), establishment of cloud seeding facility (3rd rank), provision of subsidy facilities for seeds, fertilizer and pesticides (4th rank), financial assistance for soil and moisture conservation practices (5th rank).

There is a need to improve the relations between the government and NGOs so that they can interact supportively as well as collaborate effectively to achieve the goals of rural development. In the field of agricultural development, more agricultural credit should be given to the farmers so that, they can acquire new technology, machinery and high yield variety of seeds to get high yield and more production.

RASS is expected to provide more training by establishing new training institutions and by strengthening the existing training institutions which can help the stakeholders to educate them how to get high yield from the barren or dry lands. Further the RASS is expected to provide more skill-oriented and employed and educated youth in rural area.

It can be concluded from the results of present study that NGOs showed the path of development to the world. NGOs are striving in the light of their rich
experience in dealing with people. RASS, in particular is playing a great role in a fast changing society like ours by implementing many needy philanthropic activities for rural development. Micro-finance through SHGs, Watershed activities through farmers have shown positive impact on chronic poverty. However, there is a need to improve the process of empowerment and initiate more effective rural development activities.

Since the RASS is proving itself quite effective and contributive for the enlightenment and upliftment of the poor rural people, the state and central governments and other affluent philanthropists in the society shall support and contribute more to enable it to carry on its noble ideal in a more effective and fruitful manner. Officials of NGOs and the stakeholders of NGOs eagerly willing to contribute their share to strengthen the nation, would go a long way towards making NGOs an effective instrument of social change through organized approach.