4.1 INTRODUCTION
This chapter deals with the general characteristics of each of the sampled villages in terms of their variables, starting with income, age, sex and size of household, religion and education, patterns of literacy, their occupation and expenditure, etc. The daily intake of food is converted into energy, iron, fat, protein and calcium and its variation is compared with the standard requirement, which is needed, for a balanced diet in order to have a healthy body. It also analyses the quantitative and qualitative differences in the pattern of the diet of the sampled population.

4.2 POPULATION CHARACTERISTICS
4.2.1 Population distribution: In all, 13 villages were surveyed in five revenue circles and three wards in Jorhat urban area. In terms of households 598 were covered with a sampled population of 3397. The general settlement pattern of Jorhat district is clustered near the city of Jorhat and is scattered in the rural areas of the district. The sampled population represents all the five revenue circles, central and peripheral areas, hilly land, plain areas and flood prone areas, different groups of population in terms of their religion, income, education and ethnic background.
4.2.2 Sex ratio: Of the total sampled data, the number of male is 1816 and female 1581. Sex ratio thus stands at 870 females per 1000 males, which for Jorhat district is 903 females per 1000 males according to 2001 census.

### TABLE NO 4.1
**CHARACTERISTICS OF THE SAMPLED POPULATION**

<table>
<thead>
<tr>
<th>Villages</th>
<th>Household population</th>
<th>Household size</th>
<th>Average size</th>
<th>Male</th>
<th>Female</th>
<th>Literate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Literature</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Charigaon</td>
<td>231</td>
<td>40</td>
<td>6</td>
<td>119</td>
<td>112</td>
<td>105</td>
</tr>
<tr>
<td>Hatisal</td>
<td>212</td>
<td>31</td>
<td>7</td>
<td>118</td>
<td>94</td>
<td>101</td>
</tr>
<tr>
<td>Ward No. 10</td>
<td>134</td>
<td>36</td>
<td>4</td>
<td>76</td>
<td>58</td>
<td>69</td>
</tr>
<tr>
<td>Ward No. 19</td>
<td>161</td>
<td>30</td>
<td>5</td>
<td>82</td>
<td>79</td>
<td>70</td>
</tr>
<tr>
<td>Ward No. 5</td>
<td>194</td>
<td>35</td>
<td>6</td>
<td>103</td>
<td>92</td>
<td>85</td>
</tr>
<tr>
<td>Charabahi</td>
<td>266</td>
<td>50</td>
<td>5</td>
<td>132</td>
<td>134</td>
<td>128</td>
</tr>
<tr>
<td>Dhankhuloi</td>
<td>314</td>
<td>47</td>
<td>7</td>
<td>155</td>
<td>159</td>
<td>137</td>
</tr>
<tr>
<td>Kalita gaon</td>
<td>63</td>
<td>13</td>
<td>5</td>
<td>38</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Sonapur</td>
<td>121</td>
<td>18</td>
<td>7</td>
<td>69</td>
<td>52</td>
<td>60</td>
</tr>
<tr>
<td>Miching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>106</td>
</tr>
<tr>
<td>Kharjanpara</td>
<td>163</td>
<td>24</td>
<td>7</td>
<td>90</td>
<td>73</td>
<td>78</td>
</tr>
<tr>
<td>Jagduar</td>
<td>328</td>
<td>50</td>
<td>7</td>
<td>180</td>
<td>148</td>
<td>164</td>
</tr>
<tr>
<td>Pirakota</td>
<td>149</td>
<td>30</td>
<td>5</td>
<td>75</td>
<td>74</td>
<td>69</td>
</tr>
<tr>
<td>Kakajan Arandhara</td>
<td>522</td>
<td>90</td>
<td>6</td>
<td>286</td>
<td>236</td>
<td>262</td>
</tr>
<tr>
<td>Lalung gaon</td>
<td>219</td>
<td>42</td>
<td>5</td>
<td>125</td>
<td>94</td>
<td>107</td>
</tr>
<tr>
<td>New Sonowal</td>
<td>85</td>
<td>15</td>
<td>6</td>
<td>45</td>
<td>40</td>
<td>31</td>
</tr>
<tr>
<td>Tengajan</td>
<td>235</td>
<td>47</td>
<td>5</td>
<td>124</td>
<td>111</td>
<td>115</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3397</strong></td>
<td><strong>598</strong></td>
<td><strong>6</strong></td>
<td><strong>1816</strong></td>
<td><strong>1581</strong></td>
<td><strong>1612</strong></td>
</tr>
</tbody>
</table>

Source: Data collected from the field by the Researcher. See Appendix II (2)

4.2.3 Dependency ratio: Total number of earners is 839 with 2558 dependants. Dependency ratio is thus at 3.04: 1. Of the total sampled population, 25 per cent are earners and the rest 75 per cent are dependents, as shown by figure 4.1. The working age group of sampled population constitute 40 percent of the total population, of which only 61.7 per cent are engaged in income generating activities.
There are individual variations in each village as Kalita gaon in Majuli has more than 50 per cent as earners, whereas Jagduar in Teok has only 32 per cent in this age group of 26-60 years, the lowest of all villages. In the age group of 0-5 years, highest percentage is found in Kharjanpara of Majuli and lowest in Pirakota of Teok. The elderly population i.e. above 60 years is found to be relatively high in Hatisal of Jorhat east circle and lowest in Tengajan of Titabor.

4.2.4 **Rural – Urban population:** The percentage of sampled urban population is 14.4 as against the district figure of 16.9 and the state figure of 11.9. The social composition of the sampled population shows that 13 percent are scheduled tribes, 12 percent are scheduled castes and the rest 75 percent comprise the general population. This figure for the district is 12 and 7.6 percent. From table 4.2 it is seen that 23.6 per cent of the sampled population comes from urban areas and 76.4 per cent comes from rural areas.
4.3 AGE STRUCTURE

The population of the sampled villages shows that the highest proportion of population fall in the age group of 26-60 and the lowest fall in the above 60years age group. This age-wise classification of the sampled population show that 0-5 years age group constitutes 10.2 per cent, the 6-15 years age group constitute 21.4 per cent, 16-25 years age group constitute 23.6 per cent, 26-60 years constitute 40.1 per cent and above 60 years constitute 4.7 per cent.

**FIG. NO. 4.2**

The age and sex pyramid (Fig. 4.3) reveals that in all the sampled villages, male members are seen to be more in almost all the age groups excepting the age group of persons above 70 years. However, this age-sex compositions varies in each individual sampled village, but in general male members are more.
TABLE NO 4.2
SAMPLED POPULATION CLASSIFIED BY AGE AND SEX

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Villages</th>
<th>0-5 M</th>
<th>0-5 F</th>
<th>6-15 M</th>
<th>6-15 F</th>
<th>16-25 M</th>
<th>16-25 F</th>
<th>26-60 M</th>
<th>26-60 F</th>
<th>&gt;60 M</th>
<th>&gt;60 F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Charigaon</td>
<td>7</td>
<td>5</td>
<td>18</td>
<td>22</td>
<td>32</td>
<td>27</td>
<td>56</td>
<td>50</td>
<td>6</td>
<td>8</td>
<td>119</td>
</tr>
<tr>
<td>2.</td>
<td>Hatisal</td>
<td>14</td>
<td>14</td>
<td>25</td>
<td>29</td>
<td>24</td>
<td>39</td>
<td>32</td>
<td>32</td>
<td>8</td>
<td>10</td>
<td>118</td>
</tr>
<tr>
<td>3.</td>
<td>Ward No. 10</td>
<td>4</td>
<td>5</td>
<td>17</td>
<td>11</td>
<td>18</td>
<td>15</td>
<td>32</td>
<td>27</td>
<td>1</td>
<td>3</td>
<td>70</td>
</tr>
<tr>
<td>4.</td>
<td>Ward No. 19</td>
<td>4</td>
<td>8</td>
<td>18</td>
<td>14</td>
<td>15</td>
<td>27</td>
<td>45</td>
<td>27</td>
<td>0</td>
<td>3</td>
<td>82</td>
</tr>
<tr>
<td>5.</td>
<td>Ward No. 5</td>
<td>9</td>
<td>4</td>
<td>17</td>
<td>25</td>
<td>26</td>
<td>20</td>
<td>45</td>
<td>42</td>
<td>6</td>
<td>1</td>
<td>103</td>
</tr>
<tr>
<td>6.</td>
<td>Charibahi</td>
<td>16</td>
<td>9</td>
<td>28</td>
<td>30</td>
<td>27</td>
<td>21</td>
<td>59</td>
<td>66</td>
<td>2</td>
<td>8</td>
<td>132</td>
</tr>
<tr>
<td>7.</td>
<td>Dhankhuloi</td>
<td>19</td>
<td>23</td>
<td>41</td>
<td>46</td>
<td>27</td>
<td>33</td>
<td>63</td>
<td>48</td>
<td>8</td>
<td>6</td>
<td>158</td>
</tr>
<tr>
<td>8.</td>
<td>Kalita gaon</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>7</td>
<td>20</td>
<td>12</td>
<td>0</td>
<td>3</td>
<td>38</td>
</tr>
<tr>
<td>9.</td>
<td>Sonapur Miching</td>
<td>11</td>
<td>6</td>
<td>18</td>
<td>12</td>
<td>16</td>
<td>13</td>
<td>22</td>
<td>18</td>
<td>3</td>
<td>2</td>
<td>70</td>
</tr>
<tr>
<td>10.</td>
<td>Kharjanpara</td>
<td>14</td>
<td>10</td>
<td>16</td>
<td>18</td>
<td>22</td>
<td>18</td>
<td>32</td>
<td>23</td>
<td>6</td>
<td>4</td>
<td>90</td>
</tr>
<tr>
<td>11.</td>
<td>Jagduar</td>
<td>23</td>
<td>18</td>
<td>39</td>
<td>32</td>
<td>48</td>
<td>41</td>
<td>60</td>
<td>45</td>
<td>10</td>
<td>12</td>
<td>171</td>
</tr>
<tr>
<td>12.</td>
<td>Pirakota</td>
<td>5</td>
<td>3</td>
<td>18</td>
<td>21</td>
<td>19</td>
<td>14</td>
<td>32</td>
<td>30</td>
<td>1</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>13.</td>
<td>Kakajan Arandhara</td>
<td>30</td>
<td>18</td>
<td>60</td>
<td>54</td>
<td>50</td>
<td>40</td>
<td>132</td>
<td>108</td>
<td>14</td>
<td>16</td>
<td>286</td>
</tr>
<tr>
<td>14.</td>
<td>Lalung gaon</td>
<td>13</td>
<td>10</td>
<td>24</td>
<td>20</td>
<td>29</td>
<td>24</td>
<td>50</td>
<td>38</td>
<td>9</td>
<td>2</td>
<td>125</td>
</tr>
<tr>
<td>15.</td>
<td>New Sonowal</td>
<td>3</td>
<td>6</td>
<td>13</td>
<td>8</td>
<td>12</td>
<td>11</td>
<td>15</td>
<td>13</td>
<td>1</td>
<td>3</td>
<td>44</td>
</tr>
<tr>
<td>16.</td>
<td>Tengajan</td>
<td>10</td>
<td>6</td>
<td>27</td>
<td>21</td>
<td>31</td>
<td>28</td>
<td>55</td>
<td>53</td>
<td>1</td>
<td>3</td>
<td>113</td>
</tr>
<tr>
<td>17.</td>
<td>Total</td>
<td>189</td>
<td>146</td>
<td>381</td>
<td>350</td>
<td>413</td>
<td>363</td>
<td>755</td>
<td>632</td>
<td>76</td>
<td>90</td>
<td>1816</td>
</tr>
<tr>
<td>18.</td>
<td>% of total</td>
<td>9.1</td>
<td>22.1</td>
<td>23.2</td>
<td>40</td>
<td>5.6</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data collected from the field by the Researcher.
See Appendix II (10)

4.4 SIZE OF HOUSEHOLD

4.4.1 Household size in the rural areas: The average size of household among the thirteen villages is 6, excluding the urban area of Jorhat. In interior villages like Jagduar in Teok, Sonapur Miching gaon and Kharjanpara in Majuli and Dhankhuloi in Jorhat west circle, the household size is 7, being the largest of the sampled population of the district.
Households with less than five or up to five members are considered as small families and households with more than five members are considered as large families. In this sample survey, it is seen that there is an equal proportion of both large and small families with 50.4 per cent and 49.6 per cent respectively. The largest proportion of small household size is found in the urban general area (63.1%) and largest proportion of large household size is found in the tea plantation area (76%).

4.4.2 Household size in the urban areas: In the urban general area of Jorhat district, with the three wards combined, this size is 5 with the slums having average household size of 6. Ward no. 10 located on the central part of Jorhat town, has an average household size of only 4.

4.4.3 Household size and literacy: Household size is again related to literacy. It is seen that there is a positive correlation between larger household size and illiteracy. In the villages Jagduar, Sonapur Mishing gaon and Dhankhuloi already mentioned, the level of literacy is lower and the household size larger. Tengajan in Titabor circle however is an exception. It is located on the foothills of the Naga Hills in the extreme south in Titabor revenue circle. It has nearly 48 per cent female illiteracy, however their household size is only 5.

4.5 HOUSEHOLD STRUCTURE

4.5.1 Joint families: The general household structure reveals that 71.5 per cent of the sampled population have nuclear families and only 28.5 per cent have joint
families. This shows that the joint family structure is breaking down. The tea plantation areas have 94.8 per cent joint families. Whereas the rural areas, supposed to be having traditional joint families, have only 21.1 per cent joint families. Majuli, being so interior have only 27.3 per cent of the sampled population living in joint families.

4.5.2 Nuclear families: Nuclear families are supposed to predominate urban areas of every big city. In contrast, however, the urban areas of Jorhat district have as much as 32.6 per cent as joint families. In the urban slums of Jorhat, there are 91.4 per cent nuclear families. This is because these slums mostly have people migrating from different areas and are first generation settlers, working as either daily-wage labourers or traders. Regarding the origin of the slum dwellers, 45.8 per cent of them are from outside the state of Assam.

4.6 RELIGION

As already mentioned earlier, religion plays a very important part in influencing the food habits of the population. Different religious groups abstain from different meat products. Moreover, Indian women keep fasts on certain days. On these days, they abstain from any kind of food. This in turn affects the daily food intake of the women concerned.

According to the 2001 Census report, Jorhat district as a whole has the second highest number of Hindus (93.6%) among all the districts of Assam.\(^1\) In

\(^1\) Statistical Handbook of Assam, 2001
this study, 94.8 per cent of the sampled population are Hindus. Muslims follow Hindus with 5.2 per cent.

On the basis of social composition of population, the Hindus are further classified into general population, scheduled castes and scheduled tribes. Hindus in the sampled population represent 66.8 per cent, scheduled caste by 5.9 per cent and scheduled tribe by 27.3 per cent.

4.7 INCOME

4.7.1 Classification of the income groups: The people studied in the thirteen sampled villages and Jorhat urban area in the district of Jorhat, have been divided into five income groups. The income groups are <Rs.1400, Rs.1401 – Rs.3,000, Rs.3001 – Rs5,000, Rs.5001 – Rs.10,000, >Rs.10000. The group of people whose average monthly income is less than Rs. 1400 is classified as the absolute poor, as they fall below the poverty line as per the IXth Five year Plan period of India. The next income group whose average monthly earning is between Rs.1401-3000 is classified as the poor income group, the third group of people whose average monthly income is between Rs.3001-5000 is classified as middle income group, the fourth income group classified as high income group has an average monthly income between Rs. 5001- Rs. 10000. The highest income group has an average monthly income of more than Rs.10000. Figure 4.4 shows the distribution of sampled population according to their income.

---

4.7.2 Classification of the sampled population according to income: As per the definition of income groups stated above, the proportion of people below poverty line is constitute 14.6 percent of the total sampled population, which is quite a huge number. Jorhat district has a total population of 10,09,197 according to 2001 census. So 14.6 per cent is equal to 1,47,342 persons. This proportion of the absolute poor in rural areas is even higher with 17.5 per cent of the sampled population. The next group has the majority of the population accounting for 43.3 percent falling in the low middle income group (i.e. Rs.1,401 – 3,000) accounting for 4,36,982 persons of the total population of the district. The third and fourth income groups have 2,09,913 (20.8

![AVERAGE DISTRIBUTION OF INCOME GROUPS IN THE SAMPLED POPULATION](image)

**FIG. NO 4.4**

per cent) and 1,26,150 (12.5 per cent) population respectively. The highest income group has only 8.8 percent of the total population i.e. 88,809 persons’ having a monthly income above Rs.10,000.

**TABLE NO 4.3**
**SAMPLED POPULATION BY INCOME**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Village</th>
<th>&lt; Rs. 1400</th>
<th>Rs. 1401 – Rs.3000</th>
<th>Rs. 3001 – Rs. 5000</th>
<th>Rs. 5001 – Rs. 10000</th>
<th>&gt; Rs. 10000</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Charigaon</td>
<td>4</td>
<td>7</td>
<td>18</td>
<td>10</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>2.</td>
<td>Hatisal</td>
<td>-</td>
<td>23</td>
<td>7</td>
<td>1</td>
<td>-</td>
<td>31</td>
</tr>
<tr>
<td>3.</td>
<td>Ward No. 10</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>11</td>
<td>21</td>
<td>36</td>
</tr>
<tr>
<td>4.</td>
<td>Ward No. 19</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>5.</td>
<td>Ward No. 5</td>
<td>1</td>
<td>11</td>
<td>15</td>
<td>7</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td>6.</td>
<td>Charaibahi</td>
<td>15</td>
<td>20</td>
<td>12</td>
<td>3</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>7.</td>
<td>Dhandhuloi</td>
<td>2</td>
<td>31</td>
<td>13</td>
<td>1</td>
<td>-</td>
<td>47</td>
</tr>
<tr>
<td>8.</td>
<td>Kalita gaon</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>9.</td>
<td>Sonapur Miching</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>10.</td>
<td>Kharjanpara</td>
<td>-</td>
<td>19</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>11.</td>
<td>Jaghar</td>
<td>-</td>
<td>46</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>12.</td>
<td>Pirakota</td>
<td>8</td>
<td>20</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>13.</td>
<td>Kakajan Arandhara</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>90</td>
</tr>
<tr>
<td>14.</td>
<td>Lalung gaon</td>
<td>20</td>
<td>16</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td>15.</td>
<td>New Sonowal</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>16.</td>
<td>Tengjan</td>
<td>20</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>3</td>
<td>47</td>
</tr>
<tr>
<td>17.</td>
<td>Total</td>
<td>78</td>
<td>231</td>
<td>111</td>
<td>66</td>
<td>37</td>
<td>598</td>
</tr>
<tr>
<td>18.</td>
<td>%age to total</td>
<td>14.6</td>
<td>43.3</td>
<td>20.8</td>
<td>12.5</td>
<td>8.8</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Data collected in the field by the researcher.
See Appendix II (15)
4.7.3 **Income wise classification by residence:** In general, the urban area has 31.5 percent of the people in the highest income group, and Ward No. 10 alone of Jorhat Municipal Area being urban has 58.3 percent of the people in the highest income group. Except for the urban slum area, other urban areas in Jorhat town have no sampled population below poverty line.

Among the villages, each of Charigaon in Jorhat east circle, Tengajan in Titabor and Sonapur Mishing gaon in Majuli have less than 7 percent of their population in the highest income category. The remaining ten villages like Jagduar, Pirakota, Kakajan Arandhara, Hatisal, Dhankhuloi, Charaibahi, Lalung gaon, New Sonowal, Kalitagaon and Kharjanpara located in the rural areas have no households in the highest income group.

These villages have the majority of their population in the second income group. It is interesting to note that Jagduar in Teok, a tea plantation area and Kharjanpara in Majuli have no household in the lowest income group where the monthly income is less than Rs 1,400. Tengajan, a Kachari S.T. village and Lalung Gaon in Titabor have 42.6 percent and 47.6 percent respectively in the lowest group belonging to the absolute poor, working as the agricultural labourers. Absolute poor of urban and rural areas have vast differences as urban areas have to buy right from rice.

4.7.4 **Income wise classification of different population groups:** Income among different population groups shows that the Scheduled tribes constitute the highest percentage of the sampled population belonging to the lowest two income groups i.e. their monthly income is less than Rs. 3000. In case of the sampled population
earning more than Rs. 10000 per month, it is the general population group, which has the highest percentage of people.

4.8 LITERACY

4.8.1 Literacy in the district: Jorhat is the most literate district in Assam, according to both 1991 and 2001 censuses. Its total literacy rate is 77.6 per cent, of which male literacy stands at 82.76 percent and female literacy at 72.54 percent.  

4.8.2 Overall Literacy in the sampled population: Among the sampled population male literacy was found to be 84.7 per cent and female literacy 68.3 percent. Of the total samples 49.8 percent have studied upto class VIII and IX but have not completed school. The percentage of graduates and post-graduates among the total sampled population is comparatively low being 6.6 percent and 0.6 percent respectively.

4.8.3 Literacy in the rural areas: Individual variations can be seen in different villages according to location, as shown by figure 4.5. In Jagduar, a village of tea labourers, 56.1 percent are illiterate while only 1.5 percent are undergraduates. There are no graduates and post-graduates in this particular village.

It is seen that the people's focus in the tea labourer's village of Jagduar is not on education. Their expenditure pattern reveals more spending on clothing and other items than on education. People in this village, majority of whom are employed in the tea garden are assured of employment, housing, medical and other facilities provided by the

---

1 ibid.
garden. So, for them education is not as important. In fact, they send more family members to earn, and thereby, contribute to the family income. Children also are hired in the tea gardens and they are given half the wages of an adult. Primary education in the nation is free and, moreover in order to attract children of the poor and the needy, mid-day meals are also provided free of cost.

A similar picture is also seen in Sonapur Mishing gaon of Majuli, where 43.8 per cent are illiterate and only 6.6 per cent are undergraduates. However, in this village, employment is not assured. But the people lack motivation, awareness and initiative. These have kept them away from acquiring their education. In Charigaon, located close to the oil pumping station, 32.9 per cent of its people have cleared higher secondary examination. This figure for other villages is not more than 20 per cent on the average.

4.8.4 Literacy among different population groups: In terms of education among different social population groups, it is seen that the percentage of illiterates are highest in the scheduled tribes (36.7%) followed by scheduled castes (24.6%), whereas the percentage of literates are highest in the general population group (80.2%) as shown by Figure 4.6. Similarly, the percentage of female illiteracy among scheduled tribes and scheduled castes are 40 and 45 per cent respectively.

4.8.5 Female Literacy: There is a large percentage of female illiteracy, accounting for 35.2% of the total female sampled population. This is in fact quite a large number for

191
Jorhat district, the female population of which is 4,78,957 according to 2001 census. This figure comes to 1,68,593 which shows that more than 1.6 lakh population are illiterate. Jagduar and Sonapur Mishing gaon show high percentage of female illiteracy.
Figure 4.7 shows the education of the female population only. Female literacy in the rural areas of the district still ranks first in the state of Assam with 70.5 per cent whereas urban literacy in the district occupies ninth position with 82.5 per cent. It can be seen that a large majority (42.9%) of the female population has received primary education but have not completed school.

This figure for the under-matriculates after completing primary education is 49.7 per cent, for those who completed matriculation is 14.7 per cent, for Graduates 3.3 per cent. The postgraduates hardly contribute to the graph with only 0.6 per cent of the total female population being in this category. The female graduates and post-graduates are seen only at Jorhat urban area and Charigaon located on the outskirts of Jorhat town. Regarding completion of school only 16.3 per cent have done so. The following table shows the female illiteracy in the sampled villages.
### TABLE NO 4.4
**FEMALE LITERACY IN THE SAMPLED VILLAGES**

<table>
<thead>
<tr>
<th>Villages</th>
<th>Total Samples</th>
<th>Female Illiterate</th>
<th>UM Graduates</th>
<th>Matric Graduates</th>
<th>P.G. Graduates</th>
<th>Others</th>
<th>Total (F) Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charigaon</td>
<td>231</td>
<td>112</td>
<td>6</td>
<td>56</td>
<td>34</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Hatisal</td>
<td>212</td>
<td>94</td>
<td>41</td>
<td>37</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ward No. 10</td>
<td>134</td>
<td>58</td>
<td>-</td>
<td>17</td>
<td>18</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Ward No. 19</td>
<td>161</td>
<td>79</td>
<td>16</td>
<td>39</td>
<td>13</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Ward No. 5</td>
<td>194</td>
<td>92</td>
<td>37</td>
<td>37</td>
<td>8</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Charaibahi</td>
<td>266</td>
<td>134</td>
<td>16</td>
<td>63</td>
<td>36</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>Dhankhuloi</td>
<td>314</td>
<td>159</td>
<td>39</td>
<td>69</td>
<td>25</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Kalita gaon</td>
<td>63</td>
<td>25</td>
<td>7</td>
<td>16</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sonapur Miching</td>
<td>121</td>
<td>52</td>
<td>21</td>
<td>23</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kharjanpara</td>
<td>163</td>
<td>73</td>
<td>24</td>
<td>37</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Jagdiaar</td>
<td>328</td>
<td>148</td>
<td>78</td>
<td>50</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pirakota</td>
<td>149</td>
<td>74</td>
<td>13</td>
<td>44</td>
<td>12</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Kakajian Arandhara</td>
<td>522</td>
<td>236</td>
<td>73</td>
<td>123</td>
<td>22</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lalung gaon</td>
<td>219</td>
<td>94</td>
<td>18</td>
<td>42</td>
<td>21</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>New Sonowal</td>
<td>85</td>
<td>40</td>
<td>13</td>
<td>15</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tengajam</td>
<td>235</td>
<td>111</td>
<td>52</td>
<td>46</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3397</strong></td>
<td><strong>1581</strong></td>
<td><strong>454</strong></td>
<td><strong>714</strong></td>
<td><strong>211</strong></td>
<td><strong>47</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

| 0-5yrs           | 146           | 31.60%            | 49.70%       | 14.7%            | 3.30%          | 0.60   | 0.00                | 68.30%            |

Source: Data collected from the field by the Researcher.
See Appendix II (13)

### 4.9 OCCUPATION

**4.9.1 Occupation in the district:** Jorhat district, like any other district of Assam, is an agrarian one, with a large proportion of its population engaged in the primary sector in the villages. The emergence of non-agricultural activities like trade and
commerce, services, transport and communication, industry, etc. has been quite slow until the recent past.

According to 2001 Provisional Population Totals, the total work participation rate in the state of Assam is found to be 35.8 per cent as against rural and urban work participation of 36.4 and 31.9 percent. This low work participation is largely associated with lack of development of the non-agricultural sector.

As a whole, Jorhat district has a work participation of 41.6 per cent, which for male is 52.6 per cent and for female is 29.4 per cent. Male and female work participation rate in Assam is 49.9 and 20.8 per cent, according to 2001 figures. Of the total working population 45.5 per cent are engaged in primary, 4.1 per cent in secondary and 50.4 per cent in the tertiary occupations.5

4.9.2 Occupation of the sampled population: The sampled survey reveals that 44.2 per cent of the people are engaged in primary occupation, 6.3 per cent in secondary and 44.8 per cent in the tertiary occupations as shown by table no.4.6.

i) In the primary sector, people are mostly engaged in agriculture, fishing or as agricultural labourers. In agriculture, cultivation of rice is predominant, while fishing is carried in certain villages located close to the river Brahmaputra, in the flood prone areas as their means of livelihood.

---

### TABLE NO. 4.5
**OCCUPATIONAL COMPOSITION OF THE SAMPLED POPULATION**

<table>
<thead>
<tr>
<th>Villages</th>
<th>Agriculture</th>
<th>Agri-labor</th>
<th>Fishing</th>
<th>Weaving(HH)</th>
<th>Industry</th>
<th>Business</th>
<th>Govt. Service</th>
<th>Pvt. Service</th>
<th>Construction</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pira-kota</td>
<td>40%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.3%</td>
<td>26.7%</td>
<td>-</td>
<td>6.7%</td>
<td>23.3%</td>
</tr>
<tr>
<td>Charigaon</td>
<td>2.5%</td>
<td>5%</td>
<td>-</td>
<td>-</td>
<td>5%</td>
<td>7.5%</td>
<td>77.5%</td>
<td>2.5%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Charaibahi</td>
<td>20%</td>
<td>2%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2%</td>
<td>44%</td>
<td>-</td>
<td>20%</td>
<td>12%</td>
</tr>
<tr>
<td>Lalgung Gaon</td>
<td>69%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.4%</td>
<td>9.5%</td>
<td>-</td>
<td>11.9%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Jagduar</td>
<td>4%</td>
<td>16%</td>
<td>-</td>
<td>-</td>
<td>72%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8%</td>
</tr>
<tr>
<td>Kalita Gaon</td>
<td>38.5%</td>
<td>-</td>
<td>7.7%</td>
<td>-</td>
<td>-</td>
<td>30.8%</td>
<td>15.4%</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Miching Gaon</td>
<td>27.8%</td>
<td>22.2%</td>
<td>11.1%</td>
<td>-</td>
<td>-</td>
<td>22.8%</td>
<td>11.1%</td>
<td>-</td>
<td>5.6%</td>
<td>-</td>
</tr>
<tr>
<td>Kakajan Arandhara</td>
<td>13.3%</td>
<td>13.3%</td>
<td>-</td>
<td>-</td>
<td>40.1%</td>
<td>-</td>
<td>13.3%</td>
<td>20%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hatisal</td>
<td>54.8%</td>
<td>16.2%</td>
<td>29%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>New Sonowal</td>
<td>6.7%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>13.3%</td>
<td>13.3%</td>
<td>-</td>
<td>46.7%</td>
<td>20%</td>
</tr>
<tr>
<td>Kharjanpara</td>
<td>29.2%</td>
<td>12.5%</td>
<td>20.8%</td>
<td>4.2%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>25%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Tengajen</td>
<td>42.5%</td>
<td>40.4%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.3%</td>
<td>-</td>
<td>12.8%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Jorhat Ward 10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.9%</td>
<td>67.6%</td>
<td>-</td>
<td>26.5%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Jorhat Ward 5</td>
<td>-</td>
<td>-</td>
<td>40%</td>
<td>-</td>
<td>5.7%</td>
<td>17.1%</td>
<td>-</td>
<td>25.7%</td>
<td>5.8%</td>
<td>-</td>
</tr>
<tr>
<td>Jorhat Ward 19</td>
<td>31%</td>
<td>-</td>
<td>14%</td>
<td>-</td>
<td>10%</td>
<td>42%</td>
<td>-</td>
<td>1%</td>
<td>2%</td>
<td>-</td>
</tr>
<tr>
<td>Dhankhuloi</td>
<td>55.3%</td>
<td>12.8%</td>
<td>4.3%</td>
<td>-</td>
<td>-</td>
<td>4.3%</td>
<td>10.6%</td>
<td>-</td>
<td>10.6%</td>
<td>2.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27.3</strong></td>
<td><strong>11.4</strong></td>
<td><strong>5.5</strong></td>
<td><strong>0.5</strong></td>
<td><strong>5.8</strong></td>
<td><strong>12</strong></td>
<td><strong>18.3</strong></td>
<td><strong>3.1</strong></td>
<td><strong>11.4</strong></td>
<td><strong>4.7</strong></td>
</tr>
</tbody>
</table>

Source: Data collected from field by the researcher. See Appendix II (16)

ii) In case of secondary occupation, people are mostly engaged in the tea industry, oil pumping, small-scale industry, household and cottage industry, etc. while some are engaged in construction work and other daily wage jobs.
iii) In the tertiary sector, people are engaged in government and private sector jobs, transport and communication, and trade and commerce. Table 4.6 shows the percentage of people engaged in different occupation.

4.9.3 Occupation in the rural areas: The predominance of agriculture is reflected as in the occupational structure in the primary sector of economy of the sampled working population (Fig.4.10). The sampled village with highest percentage of population engaged in agricultural occupation are Lalung Gaon in Titabor Circle with 69 per cent, followed by Dhankhuloi with 55.3 per cent, Hatisal with 54.8 per cent. Tengajan and Pirakota come next with about 40 percent sampled population engaged in agriculture.

In Majuli, 35 per cent of the people are engaged in agriculture and an equal number of people earn their livelihood as agricultural labourers. This shows the increasing number of landless people in Majuli, probably as a result of recurring floods.

The fishing population is found mainly in Hatisal village, located in Jorhat East Circle on the backwaters of the Brahmaputra near Nimati Ghat, followed by Kharjanpara and Sonapur Mishing gaon of Majuli. Hatisal has 29 per cent and Kharjanpara in Majuli has 20.8 per cent of the working population engaged in fishing, while Sonapur Mishing gaon and Kalita Gaon in Majuli has 11.1 per cent and 7.7 per cent respectively, engaged in this occupation.
4.9.4 **Occupation in the secondary sector:** Jagduar, being a tea garden has a high proportion of people under secondary occupation (72%), followed by Ward number 5 and Charigaon located in the periphery of Jorhat town.

The highest percentage of workers of the sampled population engaged in construction is New Sonowal (46.7%), located in Titabor Circle, followed by Ward number 10 (26.5%) and Ward number 5 (25.7%) of Jorhat urban area.

4.9.5 **Occupation in the tertiary sector:** In the Tertiary sector of occupation, the proportion of the total sampled population engaged is quite high (44.8%). Ward number 19 of Jorhat urban area, Kakajan Arandhara in Teok and Kalita gaon in Majuli have more people in business than in any other occupation. Ward No. 19 has 42 per cent, followed by Kakajan Arandhara with 40 per cent, and Kalita Gaon of Majuli with 30 per cent. Kakajan Arandhara in Teok circle, being a roadside village, next to the National Highway about 12kms to the east of Jorhat town, is engaged in business of a variety of goods.

Charigaon in Jorhat east circle, Ward No.10 of Jorhat urban area and Charaibahi in Jorhat west circle have relatively high proportion of people under government service. Charaibahi though located in the rural-urban fringe has 44 per cent of its people under government service. Pirakota in Teok, though located 28km away from Jorhat town has 26.7 per cent under government service.
4.9.6 Occupation in different groups of people: Among the scheduled caste and the scheduled tribes, more than 50 per cent of the population are engaged in agriculture. In case of scheduled caste, again quite a large proportion (20%) are engaged in fishing. However, among the general population groups, the occupational wise distribution shows higher concentration in agriculture as well as (23.5%), government service (19%) and business (16.6%).

4.10 EXPENDITURE

Expenditure of money is always related to income. It is seen that the major fraction of the income of the sampled population goes in meeting the food expenditure, as shown by figure number 4.9.

![Bar chart showing average expenditure pattern of the sampled population](image)

FIG. NO 4.9

This figure shows that the proportion of income spent on food is quite high and cannot be compared to the expenditure on other items. This
figure gives the total general picture of the surveyed villages, but there are strong variations in different villages.

In the urban areas expenditure of the general sampled population on food is 54 per cent of the total income, while the poor in the urban slums spend 80 per cent of their income on food. In the rural areas, general population spend 63.6 per cent of their income on food, and their food from the market is supplemented by household produce. (See Appendix II No. 16)

The next important item of expenditure is clothing. In general, medical expenditure seems to be the least along with expenditure on other items in which comes mainly luxury items. This shows that the large majority of the people when ill seek government aid, as a major part of their income is spent on food and they cannot afford to buy medicine. Medical expense is less than 6 per cent of the total expenditure in all other villages, except in Lalung Gaon, Charaibahi and Pirakota, where it is 17.4 per cent, 12.2 per cent and 11.4 per cent, respectively.

In savings, it is seen that on an average, the sampled population save about 10 – 15 per cent of their income. However, different villages show great variations in this aspect. At one extreme the sampled population in villages like Hatisal, purely an agricultural village, located on the banks of Nimati ghat in Jorhat East Circle and Ward No. 5 being a slum, show no savings at all. At the other extreme, the sampled population of the villages like Charigaon has 21.2 per cent of their income on savings, recording the highest proportion in all sampled villages, followed by Charaibahi of Jorhat West
Circle with 17.4 per cent savings. The people of Jorhat Urban area have 10.8 per cent of their income on savings. Even Jagduar with majority of tea tribes population save more than Jorhat urban area, their savings being 14.6 per cent of their income.

Dhankhuloi in Jorhat West, New Sonowal in Titabor, Ward No. 19 of Jorhat Urban Area, spend more than 15 per cent, the highest among all the villages, of their income on education. Even villages in Majuli like Sonapur Miching gaon and Kalita gaon spend about 9 per cent of their income on education. The emphasis on education is seen to be the least, being 0.9 per cent at Jagduar, followed by Kharjanpara of Majuli with 6.0 per cent and the slum of Jorhat urban area with 6.5 per cent.

4.11 AGRICULTURE

4.11.1 Agriculture Land use and work force in the sampled villages:
Agriculture is the main source of livelihood in the rural parts of this area. The traditional type of agriculture carried out in primitive manner still determines the way of life of the people of the region. Figure 4.10 shows the proportion of main workers to total population in Jorhat district and in both rural and urban areas according to male and females.

Here the female population is equally engaged in all the activities of rice cultivation excepting ploughing. They carry on transplanting, harvesting, thrashing and winnowing. Even children are involved in transporting the harvested crop and thrashing and winnowing. Women’s contribution to agriculture, whether it be subsistence farming of commercial
agriculture, when measured in terms of the number of tasks performed and time spent, is greater than men.

In the sampled villages in general, about agricultural work participation, it is seen that 73.4 per cent of the women folk, 82.2 per cent of the men of the working group and upto 34.2 per cent of the children of all the villages are involved in some aspects of agriculture.

![Diagram showing proportion of main workers to total]

**FIGURE 4.10**

- M: Male
- F: Female
- T: Total
- A: Assam

![Bar chart showing data for different years and locations]
There are individual variations in the villages. For example, in Majuli there is 100 per cent involvement of men, women and children in agriculture. Whereas, Pirakota is the only village, where the involvement of the women folk of the sampled population, in agriculture is negligible. The sampled women in Pirakota are more engaged in household weaving of eri, silk, an exclusive indigenous fabric of Assam.

Rice is the staple crop cultivated in Jorhat district. Figure No 4.11 shows the distribution of crops cultivated in the sampled villages. As much as 83.2 per cent of the cultivated area is devoted to rice and the rest 8.5 per cent to vegetables followed by 2.2 per cent to pulses, 4.7 per cent to oilseeds and 1.4 percent to tea.

It is seen that 76.7 per cent of the sampled population, own their land while 23.3 percent are without land. In rural areas 84.6 per cent of the people own land whereas, in urban areas only 44.5 per cent have their own land. Even in Majuli there are landless people comprising 12.7 per cent of the total sampled population. Hatisal village has a different story, as the people here keep shifting on the banks and islands of the flooded backwaters of the Brahmaputra.

Out of the thirteen sampled villages surveyed, five are flood prone and Hatisal is one of them. Three of them namely Kalita gaon, Sonapur Mishing gaon and Kharjanpara are in Majuli, Hatisal is in Jorhat East circle, and Dhankhuloi in Jorhat West circle. The villages of Majuli as well as Hatisal experience flood every year and the floodwater sometimes stays at a stretch, for upto 3 to 5 days. However, in Dhankhuloi the floodwater recedes after a day.
During floods, the people have to look for alternative means of livelihood, especially when there is no food to eat. It is seen that 36.3 per cent of the people make their ends meet by working as daily labourers and 63.7 per cent await government assistance. So, one can imagine the food crisis in these areas during the monsoon season.

Along with the water crisis, is the unequal distribution of food among people. There is scarcity of clean and safe drinking water. Hence out break of water-borne disease is common. Sometimes heavy rains and stagnation of water over long periods of time leads to loss and damage of food crop as well as property.

In the urban area, only Ward number 19, located in the periphery of Jorhat Municipal area has sampled population engaged in agriculture, as they have small plots of land adjacent to their house.
4.11.2 Crop Production: The total production of rice in the sampled villages amounts to 770,920 kilograms. Of the total rice crop cultivated in all the sampled villages, 46 per cent is used for home consumption and 54 per cent is sold out. In villages of Majuli and Titabor, the proportion of crop sold out is more than is consumed at home. Tengajan, in Titabor has the highest production of rice of all the sampled villages, of which 83 per cent is sold and only 17 per cent is consumed at home. It can be seen from figure 4.12 that 63 per cent of the rice crop comes from rural general areas and 19 per cent from flood-prone areas. But in villages like Jagduar, Kakajan Arandhara and Dhankhuloi, the entire crop is consumed at home.

The highest yield per hectare comes from Titabor area, where it is highest at Lalung gaon with 3413 kg/hectare, followed by Tengajan, also located at Titabor revenue circle with 2761 kg/hectare of rice respectively. In other areas it is as low as 885kg/hectare at Jagduar and 1527 kg/hectare at the periphery of Jorhat town. The yield/bigha of rice is higher in Titabor, as it falls in the foothills of the Naga hills. There the rivers flowing downstream deposit their maximum load of transported materials, thus making it rich in alluvium.
The cultivation of pulses and oilseeds is seen more in the villages of Majuli and these crops are meant mainly for home consumption.

<table>
<thead>
<tr>
<th>SI. No.</th>
<th>Villages</th>
<th>Food Crops</th>
<th>Non-food crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pirakota</td>
<td>86.4</td>
<td>13.6</td>
</tr>
<tr>
<td>2</td>
<td>Charigaon</td>
<td>95.5</td>
<td>4.5</td>
</tr>
<tr>
<td>3</td>
<td>Charaibahi</td>
<td>96.3</td>
<td>3.7</td>
</tr>
<tr>
<td>4</td>
<td>Lalung gaon</td>
<td>96.5</td>
<td>3.5</td>
</tr>
<tr>
<td>5</td>
<td>Jagduar TE</td>
<td>94.0</td>
<td>6.0</td>
</tr>
<tr>
<td>6</td>
<td>Kelita gaon</td>
<td>95.5</td>
<td>4.5</td>
</tr>
<tr>
<td>7</td>
<td>Sonapur M</td>
<td>95.3</td>
<td>4.7</td>
</tr>
<tr>
<td>8</td>
<td>Kakajan A</td>
<td>91.6</td>
<td>8.4</td>
</tr>
<tr>
<td>9</td>
<td>Hatisal</td>
<td>74.4</td>
<td>25.6</td>
</tr>
<tr>
<td>10</td>
<td>N.Sonowal</td>
<td>96.7</td>
<td>3.3</td>
</tr>
<tr>
<td>11</td>
<td>Kharjanpara</td>
<td>57.2</td>
<td>42.8</td>
</tr>
<tr>
<td>12</td>
<td>Tenganjan</td>
<td>98.2</td>
<td>1.8</td>
</tr>
<tr>
<td>13</td>
<td>Ward no.19</td>
<td>84.9</td>
<td>15.1</td>
</tr>
<tr>
<td>14</td>
<td>Dhankhuloi</td>
<td>86.0</td>
<td>14.0</td>
</tr>
<tr>
<td>15</td>
<td>Total</td>
<td><strong>89.18</strong></td>
<td><strong>10.8</strong></td>
</tr>
</tbody>
</table>

Data collected by the researcher, (See Appendix III No. 6).

Table no. 4.6 gives the cropping pattern in the region showing the share of food crops and non-food crops. It is seen on an average that 90 percent of the land is devoted to food crops.

4.11.3 Crop rotation: An analysis of the awareness of crop rotation shows that 65.6 per cent of the total population have heard about this practice, but only 48.9 per cent of the total population practise it. In Majuli nearly 100 per cent of the people practise crop rotation. Crops like mustard, wheat and corn are cultivated after rice is harvested. It is only in Jorhat sub-division, that crop rotation practice is less in vogue.

4.11.4 Mixed cropping: As far as mixed cropping is concerned, only 24.8 per cent have heard about it while only 3.5 per cent practice it. In Jorhat district, it is seen that huge areas are under areca nut cultivation, where mixed cropping
can be done with black pepper and betel leaf. In a few households in Jagduar, tea cultivation is intercropped with Kadam plantation (anthocephalus cadamba).

4.11.5 **Nutritional Density:** Nutritional Density is defined as the number of persons for every square kilometre of cultivated area, devoted only to food crops. In other words it is the amount of cultivated food crop area available to every person. Nutritional Density of the sampled population has been worked out in which the total population living in a particular area is divided by total land devoted to food crops. Highest nutritional density is seen at Tengajan of Titabor, followed by Kalita gaon of Majul, as shown by the diagram number. Minimum density is shown by Kakajan Arandhara, a road-side village and Ward number 10 of Jorhat urban area. In the urban area, availability of food depends to a large extent on the market.
4.12 INTAKE OF FOOD

4.12.1 Significance of nutrition: Good nutrition is a basic component of health. It is of prime importance in the attainment of normal growth and development and maintenance of good health throughout life. Another advance in recent years is the identification of a number of human body disorders, being the outcome of nutritional deficiency.

Here the two terms food and nutrition should be clear. Both are sometimes used synonymously, which is not strictly correct. Food is a composite mixture of various substances but nutrition signifies a dynamic process in which the food consumed is utilized for nourishing the body. Food in the body performs a variety of functions, giving the body energy, proteins, vitamins and minerals for bodybuilding and repair, which is nutrition. The importance of food in the health of man thus cannot be ignored.

4.12.2 Staple food: Rice is the staple food of this region. It is seen that only about 1 per cent of the sampled people are purely vegetarian and the rest are non-vegetarian. Although 99 per cent of the people are non-vegetarian, further analysis of the data will actually show how much of the non-vegetarians get to consume meat products and that too its frequency.

4.12.3 Food preferences: So far preferences are concerned among the home made, restaurant and roadside food, 90 per cent of the people prefer home made food. Here eating out is not much of a fashion like in big cities. Only 2 per cent eat out in restaurants and 8 per cent eat on roadside joints.
Preference for different types of cooking reveals that 71 per cent of the people prefer fried food, 28 per cent prefer boiled food and a negligible percentage take raw food. The desirable amount of fat in the daily meal is not known with certainty. Excessive consumption of fat results in obesity and vascular disorders. The Nutrition Expert Group in India suggested a daily intake of 15g. of fat. However, the intake of fat in these parts is much less than the recommended amount.

4.12.4 Eating habits: Eating habits reveal that majority of the sampled women (62.3%) still do not eat together with the entire family. The reason is that, they prefer to serve their husbands and children first. This practise results in the women having access to whatever food is left, which usually may not be sufficient. In Jagduar of Teok circle, and Jorhat urban area, different members of the household have different working hours and hence, they share only their dinner together.

Only 37.7 per cent eat their meals together, ensuring more or less equal distribution of food and the rest eat only after serving their husbands. The housewife takes care to see that, the breadwinner has as much food as possible even if it means depriving herself and her children.

4.12.5 Special food for pregnant women: Moreover, women who are supposed to receive special care regarding food consumption, during pregnancy, hardly get it. Of the sampled women, it is seen that during pregnancy only 34.6 per cent women get special food, when the demand for
food consumption is quite high. The Indian Council of Medical Research (ICMR) recommends an extra 300 calories of energy a day, 300 mg/day of iron, 600mg/day of calcium during pregnancy (See Appendix III, 8). The rest of the sampled pregnant women i.e. 65.4 per cent eat whatever is available, which in turn affects their health in the long run and the health of the child too.

4.12.6 Food storage: It is seen that even at this age, 43 per cent of the sampled population still leave their food uncovered when they don’t eat together. In the urban slums this figure is as high as 76 per cent. However, in Majuli even though remote, only 33.3 per cent of the sampled population leave their food uncovered.

4.12.7 Women as food providers: Among the households, 94.8 per cent still have their female members as the cooks and it is only in 5.2 per cent households that the male member also cooks. From this, it can be inferred that the burden of household work falls on women. So in order to have access to proper and balanced nutrition, the focus is to be centered on women as the primary motivator.

4.12.8 ICMR’s dietary recommendations: In this study, women above 18 years of age are considered and as far as the dietary recommendations, women in the moderate work category are taken. (See Appendix III, 8) In the area surveyed, sedentary workers are very few and the majority of rural women are housewives and also work in the agricultural field. So they are considered
in the moderate work category, as heavy workers include works involved in road construction and such other arduous work.

The daily dietary recommendations of this category include 2225 calories of energy, 50 grams of protein, 20 grams of fat, 30 miligram of iron, 400 miligram of calcium and 2400 mg of vitamin B and 100 mg of folic acid. This requirement for pregnant and lactating mothers is even more. In that case, an addition of 300 for pregnant and 450 k-calories for lactating mothers daily of energy respectively is required. In case of other food items, 300 mg and 150 mg of folic acid, 600 mg of calcium in both cases, 15 grams of protein in both cases, 10 grams of fat and 8 miligram of iron is required for both cases. This is shown by table 4.7 in which the amount of foodstuffs required to meet the ICMR recommended calorie, iron, calcium etc. are shown.

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Foodstuffs</th>
<th>Amount (in gms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cereals</td>
<td>325</td>
</tr>
<tr>
<td>2</td>
<td>Dal and Nuts</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Milk</td>
<td>200</td>
</tr>
<tr>
<td>4</td>
<td>Root Vegetables</td>
<td>150</td>
</tr>
<tr>
<td>5</td>
<td>Fruits</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Other Vegetables</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>Leafy Vegetables</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>Egg</td>
<td>50 (1 number)</td>
</tr>
<tr>
<td>9</td>
<td>Meat</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>Fat</td>
<td>50</td>
</tr>
<tr>
<td>11</td>
<td>Sugar / Jaggery</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: National Institute of Nutrition, Hyderabad.
FOOD CONSUMPTION GRAPHS
JORHAT DISTRICT

CEREALS (gms)
PULSES (gms)
SUGAR & JAGGERY (gms)
VEGETABLES (gms)
FRUITS (gms)
Milk (ml)
MEAT (gms)

GOLAGHAT DISTRICT
INDEX

RURAL
URBAN
RECOMMENDED

1. JORHAT WEST CIRCLE
2. JORHAT EAST CIRCLE
3. TEOK CIRCLE
4. TITABOR CIRCLE
5. MAJULI CIRCLE

FIG NO. 4.14
4.12.9 **Food availability:** The inadequacy of the intake of food on an average can be studied from figure 4.14 and 4.15. Figure 4.14 shows the amount of food available among the sampled women and the amount recommended by ICMR in order to maintain a healthy lifestyle. Except for cereals and sugar, on an average, the sampled women show deficiency in all other items of food. Figure 4.15 shows the intake of food among the sampled women in rural and urban areas and a comparison can be made with the recommended amount.

4.12.10 **Food consumption:** In figure 4.16 (A) the baseline at zero shows the recommended intake of calories, which is 2225 kcal. / Women / day.

**A – Energy:** In general the daily consumption of energy per woman is met at the recommended quantity in only four villages and Jorhat urban area. Out of these four villages, three of them Sonapur Mishing gaon, Kalita gaon, Kharjanpara are in Majuli and Tengajan is in Titabor. Villages deficient in energy intake are Charigaon, Charaibahi, Pirakota, Lalung gaon, Jagduar, Hatisal, New Sonowal and Dhankhuloi.

These villages occur in all the four revenue circles excepting Majuli. Thus in case of calorie intake, the sampled women in Teok and the Jorhat west circle are found to be most deficient as shown by figure 4.16 (B). The sampled women on an average in Majuli and Jorhat east circle have more than the minimum recommended calorie intake.
**B - Iron:** Similarly, in case of iron, the baseline at 0 shows 30 mg, which is the ICMR recommended daily intake of iron for women. Here it is seen that all sampled women in the villages are deficient in iron intake. Ward no.5 and Hatisal comes closest with 6.1 and 7.2 mg deficiency. Villages like Dhankhuloi...
ENERGY INTAKE IN SAMPLE VILLAGES
JORHAT DISTRICT

INDEX, ENERGY (Kcal)

1. JORHAT WEST CIRCLE
2. JORHAT EAST CIRCLE
3. TEOK CIRCLE
4. TITABOR CIRCLE
5. MAJULI CIRCLE

FIG. NO. 4.16(B)
IRON INTAKE IN SAMPLE VILLAGES
JORHAT DISTRICT

1. JORHAT WEST CIRCLE
2. JORHAT EAST CIRCLE
3. TEOK CIRCLE
4. TITABOR CIRCLE
5. MAJULI CIRCLE

INDEX

<table>
<thead>
<tr>
<th>IRON (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-12 to -13.9</td>
</tr>
<tr>
<td>-14 to -15.9</td>
</tr>
<tr>
<td>-16 to -17.9</td>
</tr>
</tbody>
</table>

FIG NO. 4.17(B)
in Jorhat West circle, Jagduar in Teok and Ward no. 19 of Jorhat urban area are highly deficient in iron intake, the deficiency amounting to more than 20 mg, as shown by figure 4.17.

This deficiency is categorized into severe, moderate and mild as shown by 4.17 (B). It is seen that the sampled women in Teok revenue circle has severe iron deficiency and Titabor has only mild iron deficiency. The other three revenue circles have moderate iron deficiency.

C – Protein: It is also interesting to note that the protein intakes in almost all the villages are more than the recommended quantity. Here the base line at 0 shows the minimum recommended quantity of 50 grams of protein daily for women. Jorhat Urban Area has the highest intake of all kinds of protein with Ward No. 19 taking an excess of 46.1gms and Ward No.10 with an excess of 40.3gms and the urban slum area has the least, being deficient by only 0.7gms daily.
PROTEIN INTAKE IN SAMPLE VILLAGES
JORHAT DISTRICT

FIG. NO. 4.18(B)
All other villages in the rural areas also meet more than the recommended allowances of protein. Hatisal and the sampled villages of Majuli, all are located in the flood-prone area and all show a high intake of protein. Probably the cause behind this is that, the people in this region are fish eaters.

Figure 4.18 (B) shows that the sampled women in Jorhat east circle has the highest intake of protein which is in excess by 16 to 20 grams, followed by Titabar and Majuli revenue circle.

**D – Calcium:** In case of calcium again, except for Jagduar and Sonapur Mishing gaon, all the sampled women meet the daily-recommended quantity. This shows that milk is available in the rural areas. Being predominantly an agricultural district, every rural household possesses cows to help in agricultural activities.

Moreover unaccounted calcium goes into the diet of the sampled women through the intake of lime, which they have with “tamol-pan” i.e. betel & leaf. The Hindus also regard the cow as a sacred animal. Highest proportion of milk intake is shown by the ward no.10 and 19 of Jorhat urban area. A fact to be considered here is data are collected as total food intake of each household, with specific queries to the women and their intake. But all the members of the household do not eat together and women always give priority to their husbands’ and childrens’food. Milk specially; whatever amount comes home is given mostly to children, elderly and the sick.
Calcium Intake Among Sampled Women

Figure 4.19 (B) show that the sampled women of Jorhat east circle have the highest intake of calcium. In this figure the baseline at 0 shows the ICMR's daily recommended quantity of 200 mg for women. Although the sampled women in the other revenue circles have less intake of calcium, they are all in excess of the minimum recommended quantity.

E – Fat: The intake of fat among the sampled women in all the villages, excepting Charaibahi, Kalita gaon and New Sonowal, is seen to be deficient. This daily recommended quantity of fat for women daily is 20 gms. Ward no.10 and 19 of Jorhat urban area and Kakajan Arandhara village of Teok is deficient by less than 1 gm of fat. Villages like Sonapur Mishing gaon of Majuli, Tengajan of Titabor, and the urban slums reflect a high deficiency in the intake of fat. The sampled women in Majuli are most deficient in the intake of fat (as shown by figure 4.20 B).
CALCIUM INTAKE IN SAMPLED VILLAGES
JORHAT DISTRICT

FIG. NO. 4.19 (B)
Thus in general, it can be concluded that except for protein and calcium intake, most of the villages are deficient in the intake of essential nutrients.

Human body requires five main types of food, mainly carbohydrates, proteins, fats, vitamins and minerals. Carbohydrates, proteins and fats are required in large amounts and vitamins and minerals in very small quantities to ensure the smooth and efficient functioning of the body. "Life is impossible without food but it is the irregularity of diet which brings about ill health".\(^6\) Barring infectious diseases and accidents 75 per cent of human ailments may be traced to food deficiency. Gastro-intestinal disturbances, beri-beri, anaemia, scurvy, rickets, pellagra, night blindness and dental cancer – all these have been found to arise from nutritional maladjustments.

---

\(^6\) N. Gangulee: Health and Nutrition in India, London, Faber. (1939, pp. 77-78)
FAT INTAKE IN SAMPLED VILLAGES
JORHAT DISTRICT

FIG. NO. 4.20 (B)
F - Vitamins: Vitamins have acquired almost a magical association in the minds of many of us. Very small quantities of vitamins show dramatic effects in correcting what are called deficiency diseases, as distinct from illness caused by infections. Dietary allowance for vitamin A is given in terms of Retinol and carotene. Vitamin B is of three types thiamine (B1), riboflavin (B2), niacin (B3) and folic acid (B12). *This is discussed in Ch-III (table 3.1).

VITAMINS

Vitamin A

Vitamin B

Vitamin C

Trace elements

DEFICIENCY OF VITAMIN A AMONG SAMPLED VILLAGES

FIG. NO. 4.21 (A)

Vitamin A: The daily recommendation of Vitamin A for women is 2400 ug, however from the data collected on food consumption graphs, it is seen that the sampled women are most deficient in the intake of this vitamin. Figure 2.1 (A).
DEFIciENCY IN VITAMIN A AMONG SAMPLED WOMEN
(Revenue Circle Wise)
Jorhat District

INDEX VITAMIN A (in ug/d)

-1800 - -1950

-1950 - -2100

-2100 - -2250

Fig. No. 4.21 (B)
shows the intake of vitamin A among the sampled women in different villages. The highest deficiency is in Charaibahi in Jorhat West Circle, Sonapur Mishing gaon in Majuli and Ward no. 5 (the slum area) in Jorhat urban area.

This map (Figure 21B) shows vitamin A intake ranging from severe to mild deficiency according to revenue circle boundaries. Severe deficiency is shown by Jorhat west circle and the sampled women of Jorhat east circle have mild vitamin A deficiency.

**FIG. NO. 4.22 (A)**

**ii) Vitamin B1:** The sampled women are everywhere sufficient in the intake of vitamin B1 which is thiamine, supplied to the body mainly by carbohydrate rich food, as shown by figure 4.22 (A) and 4.22 (B). Thiamine requirements are directly related to calorie requirements. Its deficiency causes mainly loss of
INTAKE OF VITAMIN B₁ AMONG SAMPLED WOMEN
(REVENUE CIRCLE WISE)
JORHAT DISTRICT

EXCESS OVER RECOMMENDED QUANTITY VITAMIN B₁ (in mg/d)

INDEX
1. 1  -  .49
2. 5  -  .89
3. 9  -  1.29

FIG. NO. 4.22 (B)
appetite and constipation. However chances of it are less, as the sampled women in Jorhat district are not deficient in its intake.

iii) Vitamin B2: In the intake of vitamin B2 (or riboflavin), it is seen that the sampled women are not everywhere deficient. The daily recommended intake is 1.3 mg, where the sampled women of ward no.10 and 19 have 1.5 to 2 milligrams more than the recommended quantity. The sampled women in Majuli and Teok circle are more deficient in riboflavin intake, as shown by figure 4.23 (A) and the revenue circle map represented by figure 4.23 (B). This vitamin is required for proper cell function and growth.

![INTAKE OF VITAMIN B2 AMONG SAMPLED VILLAGES](image)

**FIG.NO. 4.23 (A)**

iv) Niacin: Intake of niacin among the sampled women in different villages show that they are mostly sufficient in its intake. Figure 4.24 (A) and 4.24 (B) shows village wise intake of niacin on the graph and on the map according to revenue circles.
INTAKE OF VITAMIN B₂ AMONG SAMPLED WOMEN
(REVENUE CIRCLE WISE)
JORHAT DISTRICT

INDEX VITAMIN B₂ (in mg/d)

<table>
<thead>
<tr>
<th>Index</th>
<th>Vitamin B₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 6</td>
<td></td>
</tr>
<tr>
<td>+0.6</td>
<td>-0.28</td>
</tr>
<tr>
<td>-2.9</td>
<td>-0.03</td>
</tr>
</tbody>
</table>

1. JORHAT WEST CIRCLE
2. JORHAT EAST CIRCLE
3. TEOK CIRCLE
4. TILAGOR CIRCLE
5. MAJULI CIRCLE

FIG. NO. 4.23 (B)
INTAKE OF NIACIN AMONG SAMPLED WOMEN
(REVENUE CIRCLE WISE)
JORHAT DISTRICT

SCALE

Fig. 4.24 (B)
v) **Folic acid**: Folic acid is best expressed in terms of ‘free folic acid’ and the daily recommendation by ICMR is 100 ug. The figure 4.25 (A) shows that the sampled women are quite deficient in its intake. Figure 4.25 (B) with the map shows folic acid deficiency among the women ranging from severe to mild. This is one of the major causes of anaemia in women, specially pregnant and lactating women, in which case their requirement is additional. Meat and liver are rich sources of folic acid, so too are green leafy vegetables, which are items mostly absent from the poor sections of the society.
INTAKE OF FOLIC ACID AMONG SAMPLED WOMEN
(REVENUE CIRCLE WISE)
JORHAT DISTRICT

DEFICIENCY IN FOLIC ACID (in ug/d)
-25 -35
-35 -45
-45 -55

INDEX

1. JORHAT WEST CIRCLE
2. JORHAT EAST CIRCLE
3. TIKOK CIRCLE
4. TITABOR CIRCLE
5. MAJULI CIRCLE

FIG. NO. 4.25 (II)
vi) **Vitamin C**: Vitamin C makes the body resistant to infection, protects teeth and gums and repairs body cells. It comes to the body through lime, oranges, myrobalan (ama), guava, plum, java-plum (jambu). From the rural areas, women in seven sampled villages have sufficient intake of this vitamin along with women from urban areas, as shown by figure 24.6(A) and 4.26(B).

![INTAKE OF VITAMIN C AMONG SAMPLED WOMEN](image)

**FIG.NO. 4.26 (A)**

### 4.13 MEDICAL INFRASTRUCTURE

4.13.1 **Infrastructural facilities for health**: A study of the location of nearest medical facility shows that 48.7 per cent people are located within a radius of 1km, 26.7 per cent have to travel 2–5km and 25.7 per cent have to travel more than 5km for the nearest medical facility. In villages like Hatisal in Jorhat East circle, New Sonowal in Titabor and Kharjanpara in Majuli, 100 percent of the people have to travel more than 5km for the nearest medical facility. So one can imagine the remoteness and the helplessness of these people during emergency. At this age of modernization, vaccination and immunization of infants and children in Hatisal, is inadequate. Figure 4.27 (A) and 4.27 (B)
LOCATION OF INFRASTRUCTURAL FACILITY
MEDICAL
JORHAT DISTRICT

INDEX

WITHIN

<1KM
1-5KM
>5KM

1. JORHAT WEST CIRCLE
2. JORHAT EAST CIRCLE
3. TEOK CIRCLE
4. TITABOR CIRCLE
5. MAJULI CIRCLE

Fig. 4.27 (A)
DISTANCE OF SAMPLED VILLAGES FROM MEDICAL FACILITY

JORHAT DISTRICT

INDEX
1. KHARJANPARA
2. SONAPUR MISHING GAON
3. KALITA GAON
4. HATISAL
5. DIANKUJLOI
6. CHIKIJA GAON
7. JORHAT URBAN AREA
8. KAKAJAN ARANIHAARA
9. PIRAKOTA
10. JAGDUR JABI GAON
11. CHIRACABAILI
12. LALUNO GAON
13. TENGAJAN
14. NEW SONOWAL

FIG. 4.27 (B) 238
shows the location of the villages in terms of distance to the nearest medical facility.

4.13.2 Medical preference: Regarding medical preferences, it is seen that in all the villages, 100 per cent go to a doctor for diagnosis, when they are ill. But regarding medicine preference for treatment, 86.2 per cent prefer allopathy, 8.6 per cent prefer homoeopathy and 7.2 per cent prefer other medicines like herbal medicines, home made natural extracts, etc. Of the sampled population, 85 per cent go for allopathy because of its quick relief. The rest of the people prefer homoeopathy, as there are no side effects.

4.13.3 Distance from medical facility: Another important aspect in the study of health is the distance between settlement and the health facility. This study reveals that only 48.7 per cent of the population have access to health facility within a distance of 1km. Whereas 25.7 per cent of the population still are located more than 5km away from the medical facility. These areas are rural, and hence transport and communication is quite poor. So it is seen that villagers have to travel large distance in order to get health care. But in terms of distribution of population, villages constitute 80 per cent of the total population.

So the health care in the villages needs improvement. Moreover, stress should be laid on the development of the means of transport and communication, as patients prefer easily accessible health centres and not the distant ones for treatment.
DRINKING WATER PRACTICES AMONG SAMPLED POPULATION (REVENUE CIRCLE WISE)
JORHAT DISTRICT

Fig. 4.28 (A)
DRINKING WATER PRACTICES AMONG
SAMPLED POPULATION
JORHAT DISTRICT

INTAKE OF WATER

BOILED
NOT BOILED

ALL SAMPLED VILLAGES

1. KIARJANPARA
2. SONAPUR MISIENG GAON
3. KALITA GAON
4. HAJJALI
5. DIHANKHULOI
6. CHARIOAON
7. JORHAT URBAN AREA
8. KAKAJAN ARANDIARA
9. PPIKAKOTA
10. JAGDWAR HABI GAON
11. CHARAIBARI
12. LALUNG GAON
13. TENDAJAN
14. NEW SONOWAL

Fig. 4.28 (B)
4.14 DRINKING WATER: The awareness of safe drinking water has still to come to a large section of people. Out of the sampled population, only 29.6 per cent take boiled water and the rest of the population (70.4%) still drink water that is not boiled. In Lalung gaon of Titabor and Kakajan Arandhara of Teok, 100 per cent of the sampled population still drink water that is not boiled. Tengajan in Titabor and urban slums also have more than 90 per cent of the population drinking untreated water. Ward no. 19 of Jorhat urban area having general population drink water that is not boiled, their argument is that, they get urban water supply, which to them is treated. Figure 4.28 (A) and 4.28 (B) shows the practise of the sampled women in safe drinking water.

4.15 FAMILY PLANNING

Although a substantial number of sampled women are aware of family planning, 28.6 per cent of the people still have not heard about it. Even though 71.4 per cent of the total sampled population are aware of family planning, yet only 56.5 per cent actually plan their family. The rest 43.5 per cent beget their children without any plan, leading to larger family size and poor health of the mother. While the knowledge of family planning is nearly universal in India, only 36 per cent of married women aged 13 to 49 currently use modern contraception (IIPS, 1995). In Jagduar, among the sample villages, 100 percent of the people don’t undertake any family planning practice. Even

---

villages like Lalung gaon in Titabor and Charaibahi in Jorhat west circle have more than 70 per cent of their population without family planning practise.

So far preference to sex of the children is concerned, 17.6 per cent prefer a male child and only 2 per cent sampled population prefer for a girl child. This leads to frequent pregnancies in order to fulfil the desire for a baby boy and ultimately poor health of the mother. Research has shown that numerous pregnancies and closely spaced births erode a mother’s nutritional status, which can negatively affect the pregnancy outcome (Jejeebhoy and Rao).\(^7\) Regarding unwanted child or unwanted girl child, it is seen that 7 per cent sampled women have terminated their pregnancy.

Thus, regarding intake of food, it is seen that in Jorhat district, the sampled population in almost all the villages are deficient in the intake of calorie, iron and fat. It is only in calcium and protein that people meet the recommended calories. So, it is necessary to make the people aware, first of all, of a balanced diet and its positive health implications. This is true not only for the family but also for the community and the state as a whole. For that, the population must be educated. It is seen that the total number of illiterates is quite high. In villages like Jagduar, it is more than 50 per cent, in Tengajan 35 per cent, Kharjanpara 30 per cent and Sonapur 40 per cent. Moreover, 35.2 per cent of the total female sampled population are illiterate. This is quite a huge number, coming to three lakh twenty seven thousand approximately in Jorhat

district as a whole. So educating the women folk is a must, as the food cooked in every household depends on them.