CHAPTER - I

INTRODUCTION

1.1 History & Geography of Hingoli District
1.2 Agricultural & Cropping Pattern in Hingoli District Crops
1.3 Trade, Commerce & Industries
1.4 Edible Oil Industries in Hingoli District
1.5 Research Methodology
1.1 History & Geography of Hingoli District:

Hingoli got position of taluka in 1899 under the British Rule. The programme of Dasera is very popular in Maharashtra as well as in whole country. It has great value. The people of Hingoli district have given full response. This program is to be celebrated it as second number in our country. The celebration of Desera in Mysore is in number one in India. On 1st May 1999 the Hingoli taluka was converted into the District.

Geography:

The geographical area of Hingoli district is 5,521 square k.m. Most of area of Hingoli district is a hilly and geographically dry and chalka soil land. Some of the land is irrigated.

Hilly Area:

In a Hingoli district a lot of hills and small villages are situated. These hills are made from lava of volcano. The village Malsailu is situated on higest top of the hill area in Hingoli district. Due to hilly area and dry, wet, Chalk soil land, the farmers cultivates the land perennially.
Exbt. No. 1

Geographical Map of Hingoli District
weather:

Hingoli district's weather is the month of June, July, August, September, are monsoon months in that period, the atmosphere is to be of hot in the day and cold in the night generally. In monsoon days the average of raining is near by 875 m. In winter season, from the month of October to February the atmosphere becomes very cold in the night. In the summer days the atmosphere of Hingoli district becomes too much hot and people tries to live in their houses in day time.

Population:

Population of Hingoli City is near about 85,000 and the area of Hingoli district is 8,09178. The Hingoli district includes five talukas namely Aundha Nagnath, Kalamnuri, Basmathnagar, Sengaon and Hingoli. Aundha Nagnath City is very popular and holy places, as it is one of the 12th Jyotirling.

The great Saint Namdeo is also born in Hingoli district at village Narsi Namdeo which is in Sengaon Taluka. Basmathnagar taluka has Sub-Divisional office and Additional District Court also there. Most of the irrigated land in Hingoli district is in Basmathnagar taluka due to canal facilities.

1.2 Agricultural & Cropping Pattern in Hingoli District:

In this section the researcher has discussed the agricultural and cropping
pattern of the area under study. The subject matter of study i.e. oil industry is related with the oil seed crop. Production of oil seed depends upon agriculture and cropping pattern. Considering this inter-relationship between agriculture and oil industry, various aspects of agriculture in Hingoli district are discussed here:

1.2.1 Land Utilization in Hingoli District:

Land utilization is one of the important aspects of agriculture. The researcher has studied land utilization in Hingoli district. This is shown in the following table.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Particular</th>
<th>Area (Hect.)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Forest Area</td>
<td>12325</td>
<td>4.19</td>
</tr>
<tr>
<td>02.</td>
<td>Land Not Available for Agriculture</td>
<td>11378</td>
<td>3.87</td>
</tr>
<tr>
<td>03.</td>
<td>Other Un-cultivated Land</td>
<td>10341</td>
<td>3.51</td>
</tr>
<tr>
<td>04.</td>
<td>Uncultivated Land</td>
<td>8621</td>
<td>2.93</td>
</tr>
<tr>
<td>05.</td>
<td>Total Cultivated Land</td>
<td>190453</td>
<td>64.72</td>
</tr>
<tr>
<td>06.</td>
<td>Other Area</td>
<td>61137</td>
<td>20.78</td>
</tr>
<tr>
<td>07.</td>
<td>Total Geographical Area</td>
<td>294255</td>
<td>100</td>
</tr>
</tbody>
</table>

It can be observed from the above table that the total geographical area of Hingoli district is 294255 Hect. Out of this 12325 hect. representing 4.19% is forest area, whereas 11378 hect. representing 3.87% is land not available for Agriculture, whereas 10341 hect. representing 3.51% is other un-cultivated land, whereas 8621 representing 2.93% is uncultivated land, whereas 190453 hect representing 64.72% is cultivated land and 61137 hect representing 20.78% is other area of Hingoli district.

Thus, the total cultivated land in Hingoli district is 64.72% of the total geographical area of Hingoli district.

**Cropping Pattern in Hingoli District:**

This is one of the important aspects of agriculture. The researcher has studied land utilization in Hingoli district. This is shown in the following table.
Table No. 1.2
Cropping Pattern in Hingoli District

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Particulars of Crop</th>
<th>Irrigated</th>
<th>Non-Irrigated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Cereals</td>
<td>6645</td>
<td>49614</td>
<td>56259</td>
</tr>
<tr>
<td>02.</td>
<td>Pulses</td>
<td>160</td>
<td>81467</td>
<td>81627</td>
</tr>
<tr>
<td>03.</td>
<td>Other Food Crops</td>
<td>4735</td>
<td>--</td>
<td>4735</td>
</tr>
<tr>
<td>04.</td>
<td>Sugarcane</td>
<td>5450</td>
<td>--</td>
<td>5450</td>
</tr>
<tr>
<td>05.</td>
<td>Cotton</td>
<td>220</td>
<td>51052</td>
<td>51272</td>
</tr>
<tr>
<td>06.</td>
<td>Horticulture &amp; Other</td>
<td>511</td>
<td>3097</td>
<td>3608</td>
</tr>
<tr>
<td>07.</td>
<td>Oil Seeds</td>
<td>630</td>
<td>77974</td>
<td>78604</td>
</tr>
<tr>
<td>08.</td>
<td>Other Crops</td>
<td>3537</td>
<td>9163</td>
<td>12700</td>
</tr>
<tr>
<td>09.</td>
<td>Total Cultivated Land</td>
<td>21888</td>
<td>272367</td>
<td>294255</td>
</tr>
</tbody>
</table>


It can be observed from the above table that,

Out of the total area 56259 hect. is under cereals crops, out of which 6645 hect. area is irrigated and 49614 hect. area is non irrigated.

Out of the total area 81627 hect. is under Pulses crops, out of which only 160 hect. area is irrigated and 81467 hect. area is non irrigated.

Out of the total area 4735 hect. is under Other Food crops, out of which the whole area is irrigated.
Exbt. No. II

Cropping Pattern in Hingoli District

INDEX

- CEREALS
- WHEAT
- SUNFLOWER
- SUGARCANE
- JOWAR
Out of the total area 5450 hect. is under Sugarcane crops, out of which the whole area is irrigated.

Out of the total area 51272 hect. is under Cotton crops, out of which only 220 hect. area is irrigated and 51052 hect. area is non irrigated.

Out of the total area 3608 hect. is under Horticulture and other crops, out of which 511 hect. area is irrigated and 3097 hect. area is non irrigated.

Out of the total area 78604 hect. is under Oil Seeds crops, out of which only 630 hect. area is irrigated and 77974 hect. area is non irrigated.

Out of the total area 12700 hect. is under Other crops, out of which 3537 hect. area is irrigated and 9163 hect. area is non irrigated.

Thus, Out of the total cultivated area 294255 hect. 78605 hect. representing 26.71% is under oil seed crops.

Cultivation of Oil Seeds on Hingoli District:

Day by day the farmers are taking crops of soyabin and therefore due to huge production of soyabin crops. The foreign companies are buying soyabin seeds apart from this the farmers are of the Hingoli district also preferably takes the crops of cotton seeds, kidney been, sunflower seed, ground nut etc.

The farmers sow the oil seed crops in Rabbi and Kharif crops every year. There are oil industries can be worked for whole period of year, but if the
rainy season goes dry or the rain falls very less. Then the oil industries can be shut down for some months. The researcher has surveyed the oil seed plantation in Hingoli district. This is shown in the following table.

Table No. 1.3

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Oil Seeds</th>
<th>Irrigated</th>
<th>Non-Irrigated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Ground-nut</td>
<td>400</td>
<td>3570</td>
<td>3970</td>
</tr>
<tr>
<td>02.</td>
<td>Sunflower</td>
<td>230</td>
<td>1080</td>
<td>1310</td>
</tr>
<tr>
<td>03.</td>
<td>Kardi</td>
<td>---</td>
<td>2820</td>
<td>2820</td>
</tr>
<tr>
<td>04.</td>
<td>Soyabean</td>
<td>---</td>
<td>70367</td>
<td>70367</td>
</tr>
<tr>
<td>05.</td>
<td>Other</td>
<td>---</td>
<td>137</td>
<td>137</td>
</tr>
<tr>
<td>07.</td>
<td>Total Oil Seeds</td>
<td>630</td>
<td>77974</td>
<td>78604</td>
</tr>
</tbody>
</table>


It can be observed from the above table that, total area under Oil Seed is 78604 hect.

Out of which 3970 hect is under ground-nut; out of which 400 hect. area is irrigated and 3570 hect. area is non irrigated.

Out of which 1310 hect is under Sunflower; out of which 230 hect. area is irrigated and 1080 hect. area is non irrigated.

Out of which 2820 hect is under Kardi; the whole area is non-irrigated.

Out of which 70367 hect is under Soyabean; the whole area is non-
irrigated.
Out of which 137 hect is under Other Oil Seed; the whole area is non-irrigated.
Thus, out of the total area under oil seeds maximum area i.e. 70367 hect. is under soyabean.

**Rainfall in Hingoli District :**

This is one of the important aspect of agriculture in any geographical area. The researcher has studied the various aspects of rainfall in Hingoli district. The details are shown in the following table.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Taluka</th>
<th>Average Rain Days</th>
<th>Average Rainfall</th>
<th>2011 Rain Days</th>
<th>2011 Rainfall</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>45</td>
<td>837.6</td>
<td>23</td>
<td>554.17</td>
<td>51</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>39</td>
<td>837.6</td>
<td>32</td>
<td>708.00</td>
<td>74</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>40</td>
<td>837.6</td>
<td>31</td>
<td>496.70</td>
<td>66</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>40</td>
<td>939.3</td>
<td>33</td>
<td>713.00</td>
<td>51</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>40</td>
<td>999.3</td>
<td>32</td>
<td>681.00</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>District Total</td>
<td>49</td>
<td>890.28</td>
<td>30</td>
<td>636.50</td>
<td>68</td>
</tr>
</tbody>
</table>

It can be observed from the above table that,

Sengaon taluka has 45 days rainfall with an average rainfall of 837.6 mm. In the year 2011 the rain days were 23 and the rainfall is 554.17 mm representing 51% of the total rainfall of Hingoli district.

Hingoli taluka has 39 days rainfall with an average rainfall of 837.6 mm. In the year 2011 the rain days were 32 and the rainfall is 708 mm representing 74% of the total rainfall of Hingoli district.

Aundha taluka has 40 days rainfall with an average rainfall of 837.6 mm. In the year 2011 the rain days were 31 and the rainfall is 496.70 mm representing 66% of the total rainfall of Hingoli district.

Kalamnuri taluka has 40 days rainfall with an average rainfall of 939.3 mm. In the year 2011 the rain days were 33 and the rainfall is 713 mm representing 51% of the total rainfall of Hingoli district.

Vasmat taluka has 40 days rainfall with an average rainfall of 999.3 mm. In the year 2011 the rain days were 32 and the rainfall is 681 mm representing 62% of the total rainfall of Hingoli district.

Thus, in Hingoli district Hingoli taluka has highest i.e. 74% rainfall whereas Sengaon & Kalamnuri talukas have the lowest i.e. 51% rainfall.
Irrigation in Hingoli District:

Most of the people of Hingoli district are farmers who are depends on their agricultural income. In Hingoli district there are some water sources like Kayadhu river, Purna river, and other small rivers like Yeldari, Sidheshwar and Isapur dam,. There are also some tanks in the Hingoli district like Chinchola tank, Aundha Nagnath tank, Pimpaldari tank etc. These dams and tanks are helpful in the development of the village farmerss. These water sources are not fully helpful to the all farmers of the district. therefore some of the villages faces for water problems and their crops are depend on only rainy season. Yeldari tank is situated in Jintur taluka, though some of the villages are come under irrigation of district Hingoli. The Sidheswar dam is situated in Aundha taluka and Isapur dam is situated in Kalamnuri taluka.

Penganga river also flows from the some of the area of Hingoli district, which is helpful for the farmers of the Hingoli district. Two hydro-electric generation centres are constructed on the Yeldari dam. Due to dam projects some of the areas like Basmathnagar and Kalamnuri are became irrigated and the farmeres takes the crops of Orange, Papai, Bananas, and other vegetables by plantation.

If the State Government has constructed more dame on rivers in Hingoli district, then the production of oil seeds and other crops will definitely be grown - up. If the maximum agricultural land of the Hingoli district comes under the
irrigated land, then the Hingoli district would require the double number of oil industries, than which are in existence now.

Agriculture depends upon irrigation. Production of oil seed also depends upon irrigation. Therefore the researcher has studied the irrigation in Hingoli district. This is shown in the following table.

Table No. 1.5
Irrigation in Hingoli District

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Taluka</th>
<th>Irrigated Area</th>
<th>Total Cultivated</th>
<th>% of Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>5856</td>
<td>95121</td>
<td>6.16</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>10467</td>
<td>88464</td>
<td>11.83</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>9157</td>
<td>68128</td>
<td>13.44</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>15000</td>
<td>85120</td>
<td>17.62</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>20064</td>
<td>101989</td>
<td>19.67</td>
</tr>
<tr>
<td></td>
<td>District Total</td>
<td>60544</td>
<td>438822</td>
<td>13.80</td>
</tr>
</tbody>
</table>


It can be observed from the above table that,
Sengaon taluka has a total cultivated area of 95121 hect. Out of which 5856 hect. representing 6.16% is irrigated.

Hingoli taluka has a total cultivated area of 88464 hect. Out of which 10467 hect. representing 11.83% is irrigated.

Aundha taluka has a total cultivated area of 68128 hect. Out of which 9157 hect. representing 13.44% is irrigated.

Kalamnuri taluka has a total cultivated area of 85120 hect. Out of which 15000 hect. representing 17.62% is irrigated.

Vasmat taluka has a total cultivated area of 101989 hect. Out of which 19.67 hect. representing 19.67% is irrigated.

Thus, in Hingoli district out of the total cultivated area of 438822 hect, 60544 hect representing 13.80% is irrigated.

Dug-Wells in Hingoli District:

Dug-well is a major source of Irrigation. The researcher has studied the dug-wells in Hingoli district.
Table No. 1.6

Dug-Wells in Hingoli District

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Taluka</th>
<th>No. of Dug-Wells</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>3725</td>
<td>16.53</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>6025</td>
<td>26.75</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>2885</td>
<td>12.81</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>2381</td>
<td>10.58</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>7506</td>
<td>33.33</td>
</tr>
<tr>
<td></td>
<td>District Total</td>
<td>22522</td>
<td>100.00</td>
</tr>
</tbody>
</table>


It can be observed from the above table that, there are 22522 dug-wells in Hingoli district.

Out of which Sengaon taluka has 3725 representing 16.53% dug-wells, Hingoli taluka has 6025 representing 26.75% dug-wells, Aundha taluka has 2885 representing 12.81% dug-wells, Kalamnuri taluka has 2381 representing 10.58% dug-wells and Vasmat taluka has 7506 representing 33.33% dug-wells.

Thus, Vasmat taluka in Hingoli district has the maximum i.e. 33.33% dugwells and Kalamnuri taluka has the minimum i.e. 10.58% dug-wells.

**Tube-Wells in Hingoli District:**

Tube-well is yet another major source of Irrigation. The researcher has studied the dug-wells in Hingoli district.
Table No. 1.7
Tube-Wells in Hingoli District

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Taluka</th>
<th>No. of Dug-Wells</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>814</td>
<td>18.87</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>805</td>
<td>18.66</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>657</td>
<td>15.23</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>1063</td>
<td>24.64</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>975</td>
<td>22.60</td>
</tr>
<tr>
<td></td>
<td>District Total</td>
<td>4314</td>
<td>100.00</td>
</tr>
</tbody>
</table>


It can be observed from the above table that, there are 4314 tube-wells in Hingoli district.

Out of which Sengaon taluka has 814 representing 18.87% tube-wells, Hingoli taluka has 805 representing 18.66% tube-wells, Aundha taluka has 657 representing 15.23% tube-wells, Kalamnuri taluka has 1063 representing 24.64% tube-wells and Vasmat taluka has 975 representing 22.60% tube-wells.

Thus, Kalamnuri taluka in Hingoli district has the maximum i.e. 24.64% dugwells and Aundha taluka has the minimum i.e. 15.23% tube-wells.
Command Area of Minor Irrigation Projects in Hingoli District:

There are some minor irrigation projects in Hingoli district. The researcher has studied the command area of minor irrigation projects and the details are shown in the following table.

Table No. 1.8

Command Area of Minor Irrigation Projects in Hingoli District

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Taluka</th>
<th>Command Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>4410</td>
<td>23.36</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>5637</td>
<td>29.88</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>4579</td>
<td>24.26</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>3315</td>
<td>17.56</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>932</td>
<td>4.94</td>
</tr>
<tr>
<td></td>
<td>District Total</td>
<td>18873</td>
<td>100.00</td>
</tr>
</tbody>
</table>


It can be observed from the above table that, the command area of minor irrigation projects in Hingoli district is 18873 hect.

Out of which Sengaon taluka has 4410 hect. representing 23.36% command area, Hingoli taluka has 5637 hect representing 29.88% command area, Aundha taluka has 4579 hect. representing 24.26% command area, Kalamnuri taluka has 3315 hect. representing 17.56% command area and Vasmat taluka has 932 representing 4.94% command area.
Thus, Hingoli taluka in Hingoli district has the maximum i.e. 29.88% command area and Vasmat taluka has the minimum i.e. 4.94% command area of minor irrigation project.

Command Area of Major Irrigation Projects in Hingoli District:

The demand of irrigation can be fulfilled through major irrigation projects. It is also useful for oil-seed production. The researcher has studied the command area of major irrigation projects and the details are shown in the following table.

Table No. 1.9

Command Area of Major Irrigation Projects in Hingoli District

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Taluka</th>
<th>Command Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>2630</td>
<td>6.81</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>11274</td>
<td>29.22</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>24682</td>
<td>63.97</td>
</tr>
<tr>
<td></td>
<td>District Total</td>
<td>38586</td>
<td>100.00</td>
</tr>
</tbody>
</table>


It can be observed from the above table that, the command area of major irrigation projects in Hingoli district is 38586 hect.

Aundha taluka has 2630 hect. representing 6.81% command area,
Kalamnuri taluka has 11274 hect. representing 29.22% command area and Vasmat taluka has 24682 representing 63.87% command area.

There is no command area of major irrigation projects in Sengaon and Hingoli taluka.

Primary Agricultural Co-operative Societies in Hingoli District:

Primary Agricultural society is the major source of credit at the grassroot level for the agriculturists. The production of oil seed needs credit. This credit is provided by PACS. The researcher has studied the distribution of PACS in Hingoli district. This is shown in the following table.

Table No. 1.10

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Taluka</th>
<th>No. of Societies</th>
<th>%</th>
<th>No. of Members</th>
<th>%</th>
<th>Loan Amt.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>84</td>
<td>19.53</td>
<td>30080</td>
<td>34.73</td>
<td>119387</td>
<td>34.74</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>100</td>
<td>23.26</td>
<td>9427</td>
<td>10.88</td>
<td>34527</td>
<td>10.05</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>69</td>
<td>16.05</td>
<td>10212</td>
<td>11.79</td>
<td>1280</td>
<td>0.38</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>91</td>
<td>21.16</td>
<td>17490</td>
<td>20.20</td>
<td>104435</td>
<td>30.39</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>86</td>
<td>20.00</td>
<td>19406</td>
<td>22.40</td>
<td>83990</td>
<td>24.44</td>
</tr>
<tr>
<td></td>
<td>District Total</td>
<td>430</td>
<td>100.00</td>
<td>86615</td>
<td>100.00</td>
<td>343619</td>
<td>100.00</td>
</tr>
</tbody>
</table>

It can be observed from the above table that,

Sengaon taluka has 84 (19.53%) societies with a membership of 30080 members (34.73%) and has distributed the loan amount Rs. 119387 (34.74%) for various crops.

Hingoli taluka has 100 (23.26%) societies with a membership of 9427 members (10.88%) and has distributed the loan amount Rs. 34527 (10.05%) for various crops.

Aundha taluka has 69 (16.05%) societies with a membership of 10212 members (11.79%) and has distributed the loan amount Rs. 1280 (0.38%) for various crops.

Kalamnuri taluka has 91 (21.16%) societies with a membership of 17490 members (20.20%) and has distributed the loan amount Rs. 104435 (30.39%) for various crops.

Vasmat taluka has 86 (20%) societies with a membership of 19406 members (22.40%) and has distributed the loan amount Rs. 83990 (24.44%) for various crops.

Thus, maximum No. of PACS are in Hingoli taluka i.e. 100 and the lease in Aundha taluka i.e. 69.
1.3 Trade, Commerce & Industries:

Hingoli district is popular as a market place in Marathwada region M.I.D.C. area is also developed in Hingoli city and many factories and industries area producing their product. In Hingoli district there are many trades and business like printing press, offset, gold, clothes, poultry farm, goat farm, flowers, hotels, oil productions, plastic products, Ginning and Pressing Factories, Pipe factories, and other different types of product.

In Hingoli district there is one Agricultural Produce market committee (Krishi Utpanna Bazar Samiti). There is also one new mondha market place. The market committee and new mondha area is used for the marketing purpose.

Industries:

The main occupation of the people in Hingoli district is agricultural produce, which covers 90% of population. In M.I.D.C. area there are brick manufacturing, ice-factory, sugar-industries, oil industries, sawmill, shoes and plastic manufacturing, are developed. These industries are working nicely, but the Hingoli district also requires some more industries and factories which are necessary as the agricultural produce goes to the other districts, for industrial use. The investment in the establishment of the industries is such type of big industries.
Exbt. No. III

Industries in Hingoli District
The edible oil industries are also less in Hingoli district, but those which are in existence can not run nicely due to financial, technical, and other problems like labour and raw materials.

Transportation & Communication:

If the oil industries or other industries should work nicely then there should be best facilities of transportation and communication, in that area. If there are transportation facilities available for the industries, then the unit can be work properly and quickly and within time. If there is good communication between industries and their customers, then the customers and other people can get the knowledge of price of raw materials and the products of oil industries.

In Hingoli district there is one Akola Hyderabad State High Way and Railway facility for the transpiration of the goods. The meter guage into broad guage. There is only one Akola - Hyderabad High Way which is used for the transportation of goods from South India to North India. The road transport uses trucks, tempos, and other vehicles for the supply of goods.

In Hingoli district there are telephone, mobile, mobile tower, Internet, city television channel etc. facilities of communications are available, for the advertisement of the product of the industries.
1.4 Edible Oil Industries in Hingoli District:

The edible oil industry in fact, starts from the farmer who grows the oil seeds. The economics of edible oil industry is dependent upon the economics of production of oil seeds. The researcher has covered in this study both the parts i.e. cultivation of oil seeds and production of oil.

The edible oil industry in Hingoli district can be divided into two sections:

1. Traditional Edible Oil Industry
2. Modern Edible Oil Industry

1.41 Traditional Edible Oil Industry

This is the conventional edible oil industry established in the rural and semi-urban area. It is known as Tel-Ghani. It is a tiny and cottage industry. A small crusher made-up of wood or iron is operated with the help of animal power, normally the bullock. This industry is established in the areas where oil seed is grown. Generally, oil seed producers get the oil extracted from such crushers as a job work. These units extracts the oil from ground-nut, soyabean and other oil seeds. Such crushers are now being operated by electric power also. However, now a days these tiny units are proved to be uneconomical and are slowly being closed down. Still it forms a part of edible oil industry in the district.
1.4.2 Modern Edible Oil Industry

These are the small, medium and large scale units operated with the help of high-tech machinery. Generally it consists of a complete refinery unit with a crusher and expeller. These units extract oil on a large scale. Generally groundnut oil and soyabean oil are the main product of these units. Such units are operated by the corporate sector. In hingoli district these units form an important part of the edible oil industry.

The present study covers both the tiny and medium units in edible oil industry.

1.5 Research Methodology:

Research methodology must be explained at the outset. This section covers following points:

1. Objectives of the Study
2. Limitations
3. Rational of the Study
4. Hypothesis of the Study
5. Research Methodology - Survey
6. Selection of Sample
7. Review of Literature
1.5.1 Objectives of the Study:

In the present research work the researcher has tried to study the conditions and problems of the Oil industries with special reference to Hingoli District. The objectives of present research work are as follows:

1. To present a general profile of edible oil industries in India.

2. To present a profile of area under study i.e. Hingoli District with particular reference to edible oil industries.

3. To present an review of literature related with the subject matter under study.

4. To present a micro-scopic analysis of conditions of edible oil industries with particular reference Hingoli district.

5. To present an in-depth study of the various problems of edible oil industries with particular reference to Hingoli district.

6. To present an analysis causes of sickness of edible oil industries with particular reference to Hingoli district.

7. To survey the various Govt. schemes edible oil industries.

8. To study in the impact of globalization trends and the new economic policy on the edible oil industries with particular reference to Hingoli district.

9. To present suggestions and recommendations.
1.5.2 Limitations of the Study:

The limitations of the present study are as follows:

1. The study is geographically limited to Hingoli District.
2. The study is limited to edible oil industries.

1.5.3 Rationale of the Study:

India is a vast country spread from Himalayas to the North and Kanyakumar to the South. This is one of the major agriculturist country. Edible oil has been used right from ancient times in India. The art of oil extraction from groundnut and other oil seeds was known to the Indians. The oil was produced generally with the help of traditional crusher, pulled by the bullocks known as Tel-Ghani. Industrialisation plays a vital and crucial role in the economic development of a country. It is simply because no economic development is possible unless the economy has a wide and strong industrial base. Under-developed economy like India is not an exception to it as industrialisation plays a major role in their economic development. Industrialisation in under-developed economy act as an instrument both for creating capacity to absorb excess labour power and of catering for the diversification of the market required at higher stages of economic development. Pandit Jawahar Lal Nehru\(^\text{18}\) was also of the opinion that economic development is synonymous with industrialisation especially the development of basic and heavy industries. Rapid industrialisation
is favoured because it is only through industrialisation that the national income can be increased. Industrial goods have better export potential and hence contribute to self-sufficiency and self-reliance. Besides, industrial development provides a base on which the superstructure of economic development can be built-up. That is why "Industrialise or Perish" has been a popular slogan for the under-developed economy like India.

Hingoli is one of the major oil seed producing district in Marathwada area of Maharashtra. Traditionally the tiny oil industries were already established in this area. After industrialization oil industries of small and large scale were also established in Hingoli district. These industries form a source of employment to the local people skilled and unskilled. The oil industries also based upon local agricultural production of oil seeds. Hence the development of this industry in Hingoli district. With the advent of new economic policy, the industry is facing various problems. The researcher has therefore opted to study the various aspects of edible oil industries in Hingoli district.

1.5.4 Statement of Hypothesis:

The hypotheses of the study are as follows,

1. The edible oil industry has performed well in Hingoli district.

2. The edible oil industries in Hingoli district are facing problems in various functional areas of finance, marketing, Operations and human resources.
3. The edible oil industries in Hingoli district should be supported by special
government scheme for protection of the same.

1.5.5 Methodology of Research:

This is an empirical study based on broad field observation based on the
sample surveys. The present study is a survey of edible oil industries with particular
reference to Hingoli district. This is a study of the problems of edible oil industries in
Hingoli district. This is a historical, empirical, analytic and descriptive study based
upon data analysis. the researcher has adopted a suitable model. The research
methodology consist of -

A. Primary Data: The study is based upon primary data. The researcher
has conducted a field survey by means of visits and interviews for the purpose
of collecting primary data. The researcher has prepared structured questionnaires
for different categories of respondents, as follows:

1. Questionnaire ‘A’....... Edible Oil Industry Entrepreneurs
2. Questionnaire ‘B’....... Oil Seed Producing Farmers

Primary data has been collected with the help of these questionnaires
and the same was analyzed for drawing conclusions.

B. Secondary Data: The researcher has also used secondary data
from various published sources such as
1. Annual reports of Industries Commission

2. Annual reports of DIC

3. Industrial Statistics.


Published data of various government agencies, Research journals and periodicals, Newspapers, Other sources etc. The data collected from these sources was also subjected to statistical analysis for the purpose of presentation.

C. Statistical Methods: The researcher has used various statistical tools, techniques and methods such as collection, classification, tabulation, graphic presentation, percentages, averages, correlation and regression analysis etc. The researcher has also applied, wherever necessary and possible, tests of significance such as ‘t’ ‘F’ ‘Z’ Chi-square etc. for drawing inference and testing of hypothesis.

D. Selection of Sample: The study is related with Hingoli district. Oil industries are spread in Hingoli district in various talukas. The details are shown in the following table.
Table No. 1.11

Edible Oil Industries in Hingoli District

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Particulars</th>
<th>Traditional Units</th>
<th>Modern Units</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Sengaon</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>02.</td>
<td>Hingoli</td>
<td>14</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>03.</td>
<td>Aundha</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>04.</td>
<td>Kalamnuri</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>05.</td>
<td>Vasmat</td>
<td>12</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>48</strong></td>
<td><strong>12</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

Thus, there are 60 units in all consisting of 48 traditional units and 12 modern units. The traditional units are operated in the tiny cottage sector, whereas the modern units are operated in small scale sector.

The researcher has selected 25% sample from traditional sector i.e. 12 units and 100% sample from modern sector i.e. 12 units of the edible oil industries in Hingoli district. The researcher has also selected a sample of 5 villages from each taluka. Further 10 agriculturists from each village producing edible oil seeds were selected. Thus, a total sample of 250 farmers from the five talukas (25 villages) was chosen for survey.
1.5.6 Review of Literature:

It will not be out of place to present here a short review of literature related with cottage and small scale industries.

Daniel Thorner\(^1\) has analysed the Census data, showing that they do not in fact support the de-industrialization thesis for the period 1881-1931. He has rejected one widely accepted version of Indian Economic history has long asserted that, “de-industrialization" and the destruction of Indian handicrafts by competition from foreign, particularly British, industry took place under British rule, there have been remarkably few studies of the alleged process at work in any specific handicraft industry. The general argument is usually put forward on the basis of an overall analysis of the Census data.

George Rosen\(^2\) has made an economic analysis of five major industries - cement, paper, iron and steel, cotton and sugar for the period 1937-1955. There are also a few straightforward histories of selected industries, such as those by S. D. Mehta on the cotton textile industry and Percival Griffith and S.K. Bose on the tea industry, but there is apparently yet not even a straight narrative account of, for instance, the jute industry, apart from a book written in 1909."Analytical studies which deal with such problems as the nature of decision-making in regard to prices or location are practically non-existent. There are hardly any studies of technological change or the reasons for its absence,
apart from Sabyasachi Bhattacharya's article on cultural and social constraints in the 19th Century, Bernsteins interesting but discursive book on the first steamboats in the Bengal Presidency, and some articles in iron and steel.

D.R. Gadgil's monograph deals with the fortunes of the various business communities in the 17th and 18th Centuries. Helen Lamb discusses the rise of such communities as the Parsis, the Marwaris and the Gujarati trading castes from the middle of the 19th Century. Rungta has also dealt with the second half of the 19th Century, but with greater emphasis on the organizational aspects: the numbers and types of joint stock companies, amount of capital, features of the company law. N.K. Sinha, A. Tripathi and S.B. Singh have written on the rise and fall of European agency houses in Bengal.

A.K. Sen has presented the argument that it was the ethos of the British entrepreneurial classes (together with Government policy) that prevented them from going into cotton textiles, and hence left the field free for Indian enterprise in Western India. Various hypotheses have been put forward to explain the relative weakness of Bengali small & tiny industry.

A.K. Bagchi has argued that the strength of Indian small & tiny industry varies inversely with the length of British rule over the region, but this still leaves unanswered the question of why different Indian groups within the same region have such different histories in business. Blair Kling has stressed the importance of at least one Bengali entrepreneur: Dwarkanath Tagore. On the
success side, Ashok Desai has argued that it was not the social or psychological characteristics of the Parsis, but the specific advantages that the Bombay Parsis in particular enjoyed in the middle of the 19th Century, such as their connections with the British, that accounted for their success. Thomas Timberg has emphasized the importance of their original banking and trading activities for the Marwaris. Full length studies, not only of these but of other communities, such as the Chettiars of South India, need to be made, as also of individual firms - both successes and failures. Fortunately there are several projects under way at the various Institutes of Management and elsewhere using the archives of firms and the private papers of industrialists and bankers and this is one field in which real advances of knowledge are likely in the not too distant future.

K. L. Sharma (1975) has studied the small industrialists in Uttar Pradesh with reference to their entrepreneurial orientation, commitment and achievement. His study included 100 small scale units in 5 towns of Uttar Pradesh. In his study, he considered the industrialists, the Government officials concerned with entrepreneurial activities, the trade union leaders and secretaries of the employees associations as the prescribes of entrepreneurial roles.

Rama Krishan (1975) conducted a survey of 94 small scale units in Delhi. He collected the information about small & tiny industrialists their social and educational and occupational background and their motivation, expectations...
and reactions to governmental schemes of assistance.

Rao Vankata\(^8\)(1975), while analyzing the background of small & tiny industry owners from Bengalore. The bulk of industrialists came from the traders and artisans community.

H.S. Pareek\(^9\) (1978) studied the financing pattern of 181 small & tiny industries in Rajestan and made an attempt too evaluate the contribution of different institutional and non-institutional sources in meeting the financing needs of small industrialists. The study revealed that equity was the most important source of fund for the small scale enterprises on the average; the industrialists owed about half of the net capital employed and other non-institutional source from such as friends, relatives and money lenders.

In 1979, the IDBI, through the help of Technical Assistance Fund had sponsored a study to assess the efficiency of financial incentives as an instrument for promotion of healthy industrial growth in small & tiny sector.

Manohar U. Deshpande\(^10\) (1982) studied 90 industrialists from Marathwada region to find out the industrial settings and various steps necessary in the preparatory stage. He concluded that government incentives like central subsidy, development of industrial areas and development of infrastructure have initiated and accelerated the process of industrialization and encouraged some people to take up small & tiny industry. But he also disclosed that only the upper stratum of the society availed most of the benefits of economies created on the
society by the government agencies to develop the small scale industrial small & tiny industry.

Venkaiah V. (1986): He has conducted a study of agro-based industries. With reference to Nalgonda district of the Telangana region of Andhra Pradesh. According to him, agro-based industrial occupations have emerged as a new and important dimension in the occupational structure of the rural area as a result of the setting up of agro-based industries. The establishment of agro-based industries brought about significant changes in the occupational positions of agricultural workers.

P.N. Mishra (1987) studied the role of selected financial institutions in generating and developing new small & tiny industrialists. He surveyed 125 industrialists from I.F.C.I., I.D.B.I and I.C.I.C.I. He concluded that the new industrialists pose several problems from financial institutions. Most important problems were incomplete and badly formulated proposals, insufficient promoters and contributors. The industrialists at the other hand facing the problems like lengthy and cumbersome procedure of the financial institutions.

Fatch singh Jasol (1988) reported that food products contributed Rs. 1985-86. This rose to Rs. 298.58 crore in 1986-87 and the figure for 1987-88 likely to be of the order of about Rs. 345 crore against a target of Rs. 400 crore. The contribution of the above products within the overall export of agricultural sector in 1985-86 and 1986-87 in terms of percentage of total is 13
and 12 percent respectively. What this paper is concerned with is therefore, that 10-15 percent segment of the totality of export from the agricultural sector. Empirically examined, the relationship between agro-based industries and overall industrial production for the year 1974-75 to 1985-86. The growth for agro-based industries works out to be 6.8 percent per annum.

**Ganguly (1988)**: Empirically examined, the relationship between agro-based industries and overall industrial production on one hand and production of agro-industries and production of non-food grains item on the other for the years 1974-75 to 1985-86. The growth rates of production of agro-based industries (x) whose weight was 32.99 percent in the index of industrial production (y). on the basis of the growth rates for the last 2 years, the co-efficient of correlation worked out to be 0.71. this was significant at 1 percent level of significance. The targeted growth rate for seventh plan for overall industrial production being 8 percent per annum, the asking rate of growth for agro-based industries worked out to be 63.8 percent.

**Singh and Vyasula (1989)** studied the growth structure of the food processing industry in Punjab 1966-86. It was observed that growth has taken place in the field of primary processing of agricultural produce which has recorded growth above the state average in both output and employment. But the secondary processing sector, which contributed to higher rates of value added, has not grown at a common rate. The aspect of policy to encourage the...
growth of the value adding secondary sector of processing were identified as a field for future research.

Shrivastava\textsuperscript{16} (1989) studied the agro-processing industries in India. Study revealed that, in India substantial portion of net value added from the agro-industry was derived from unorganized and cottage scale.

Bhole\textsuperscript{17} (1989) the study pertains to four western districts of Viderbha, namely Buldhana, Akola, Amravati and Yavatmal, for this purpose primary as well as secondary data on consumption (1984-85) and production (1964-85) of oilseeds were collected. They concluded that, by 2000 A.D. each village is Buldhana district can go for a small oil mill.

Badibhavi and Belavatagi\textsuperscript{18} (1989) have studied the relative shares of numbers of agro-based industries in the manufacturing sector of Karnatka. The study revealed that the number of agro-based industries in Karnatka increased considerably from 1969 to 1984-85; but their share in the total industries has declined from 37 percent in 1969 to about 34 percent in 1973-74. However, their share in the total manufacturing has gone up to 38 percent in 1984-85.

Inder Sain\textsuperscript{19} (1989) has studied the regional distribution of selected agro-processing industries in India and compared it with primary commodity production patterns with a view.

Srivastava\textsuperscript{20} (1989) has revealed that the process of agro-based industrialization is already on in our country in response in increasing demand
for various agro-based products for direct consumption, industrial use and export. There was already a shift from the early mechanical engineering based agro-industries to chemical based industries. In addition to the traditional agro-industries (rice mills, sugar mills, cotton ginning, spinning and weaving factories, oil mills etc.), in recent years many new agro-industries have established plants for solvent extraction for oilseeds etc.

Waghmare\(^{21}\) (1989) has reported that one quintal of cotton seed produces 11 kg of refined oil which is directly used for human consumption. The study suggested in set up oil extracting plants at different locations on the basis of area and production of the crop. Looking at the estimates and capacity of refined oil extracting unit, in all 6 to 7 units can be installed in Maharashtra state including those already installed to utilize the units.

Alagh\(^{22}\) (1990) has noted the biscuit industry in India consists the organized sector which constitute the large, medium and small scale manufacturers who produce packaged goods. The unorganized socio-constituting small bakery units who by and large dispense their production across the counter next to the baking unit itself. They are twice the size the so called 'organized' sector and quite often many times more profitable Unofficial estimates put the annual production level of biscuits at close rate 7,00,000 tonnes with a turnover of around Rs. 1,500 crore. This makes the biscuit industry the largest constituents of the bakery sector, which in turn is the largest
constituents of the food processing industry in India.

**S. Ashok Kumar**\(^2\)(1990) has conducted a study of small & tiny industry in small industries in two industrial estates of Marri Palam and Autonagar in Vishakhapatnam city. The study revealed that it was mainly the people hailing from Kamma Community who dominated the small & tiny industry in the two industrial estates. It also observed that the lower level of education and rural background of the entrepreneur were not handicapped for the entry into industrial small & tiny industry, while higher level of education and urban background provide some added advantage. Education and training, previous job experience and encouragement of family members, friends and relatives were some of the important entrepreneurial motivations for industrialists in the industrial estates.

**Sakariah**\(^2\)(1991) has studied the need for man power in the processed food industries is projected based on the value addition for different agricultural process commodities. In the year 1986, the estimated value addition was in the order of Rs. 50, 703 crore at primary, secondary and tertiary level figure projections from the Eight Five Years Plan Draft Report. Increase in production per annum for different classes of foods estimated is in the range of 2 to 16 percent and the average increase for major items in the organized sector could conveniently be placed at 5 percent or more. As value addition and increased production need better technology and more technologists for optional needs.
Antonenko\textsuperscript{25} (1992) has concluded that the creation of small decentralized processing firms in the Ukrin should be encouraged. Such firms could provide an important supplement to the large firms in the state Processing industries. Additionally, they would help to reduced the high transport losses and transportation costs and would be better suited to meet the needs of the newly set up small private firms. They would also generally operate in a less environmentally damaging way than existing large-scale industry.

Papageorgiow\textsuperscript{26} (1993) has revealed that, the amount of produce denoted to the agro-food industry was continuously growing in Greek. Over the last five years, the farm produce processing industry has grown as result of increase in national income. However, the structure of most farms produces processing industries was not sufficiently competitive in the long term.

Gill\textsuperscript{27} (1993) has concluded that agro-processing unit accounts for 21 percent of net value added. The substantial portion of value added from revealed that agro-processing unit accounts for 21 percent of net value added. The substantial portion of value added from agro industry was derived from unorganized and cottage scale units. Only 42.6 percent value added was derived from the registered units in 1986-87.

Buzzanell and Gray\textsuperscript{28} (1994) have studied US bakery and cereal industries are large traditional users of sweeteners, including sugar, maize sweeteners and honey. These industries use sweetness ingredients for flavor
as well as other functional characteristics. USDA forecasts that an estimated 1.9 million short tones of sugar (refund) and 815000 tones maize sweetness (dry basis) will be used by the bakery and cereal industries in 1994, up to 37 percent and 26 percent, respectively, from a decade earlier. The cost of these sweetness as well as honey, molasses and high intensity sweetness exceeds $1000 million a year according to the US Census Bureau, Continued growth expected in the use of sweeteners by the bakery and cereal industries.

Xaviour V. M. (1994) has evaluated the performance and problems of successful and unsuccessful, 90 small scale industrial industrialists in Kerala. He studied the performance of the industrialists in promotion of their units, awareness of incentives, methods of supervision, distribution of their products, production and capacity utilization, employment and other major problem area. He compares the successful and unsuccessful industrialists. He concluded that there is much difference in performance and problems of successful and unsuccessful industrialists. Certain problems and expectations of the industrialists are common to both categories. He suggested that, the efforts might be made by the authorities to solve the problems and suitable steps should be taken to provide the needful as expected by the industrialists so that the growth of small sector will touch a new horizon.

Thus, the researcher has in this chapter presented an overview of the geographical area under study i.e. Hingoli district. A background of the agriculture
in Hingoli district is given. The researcher has also explained the rationale of study, stated the objectives, limitations and hypothesis. The chapter scheme is given.

Notes & References:

2. Rosen George (1959), Industrial Change in India, Asian Publisher, Bombay.


with special reference to Panjab State. Ind. Jn. of agri. Eco. 7 (1) 67-68.


