Chapter 4

Size of Land Holdings

The study of changes in the size and ownership of land holdings is one of the important aspects of the agriculture geography, because it is one of the determinants of the agricultural development particularly in our country, where fragmentation of holdings is very common phenomenon. The size and ownership of land holdings determines the use of quantity and quality of agricultural inputs and the per unit productivity. Moreover, the agricultural productivity determines the financial capacity and the purchasing power of the cultivators. Therefore, there is direct relation between the sizes of land holdings and the socio-economic development in a region. The size of land holdings is the symbol of status in the rural areas and it gives a power to use the agricultural inputs, which ultimately resulted in the higher production of crops and consequently the development of agriculture. The cultivators having large size of land holdings have played a key role in the use of agricultural inputs and therefore in the development of agriculture. These farmers produce surplus crop production by using new techniques of agricultural inputs.

On the other hand, the cultivators having small size of land holdings have limited capacity to use the agricultural inputs in their farmlands because of lower purchasing power. Consequently, the level of agricultural productivity is also low in their farmlands. Thus, it is an
established fact that the size of land holdings has direct relation with the use of agricultural inputs, productivity, production and the development of agriculture in a region.

Moreover, the ownership of land holdings is also an important factor which determines the agricultural development in a region particularly in our country. The ownership of land holdings influences the mode of agricultural development in several ways (Symons, 1968, pp. 65-66). Generally, the tenants of small size of land holdings are not in a position to use the agricultural inputs such as fertilizers, irrigation, high yielding varieties of seeds and mechanization, because of two reasons. Their financial capacity does not allow them to use agricultural inputs, and secondly, they are least interested in the long term investment in the farmland for which they are tenant. Raising the agricultural productivity and agricultural production became possible when the cultivator himself is the owner of land because he is confident about the ownership of the agricultural produces. The tenant cultivators are least interested in adopting the development measures in agriculture.

The Data and Method

The latest data for size and ownership of land holdings are available upto the year 1995-96 for Madhya Pradesh at district level. A comparative study has been made in the present chapter for the year 1970-71 and 1995-96 to find out the changes in the size of land holdings, during the period. The data for the year 1970-71 have been taken from Agricultural Statistics of 1973; while the data for the year 1995-96 have been obtained from the Agricultural Statistics of 2000, published by the Director of Agriculture, Bhopal and Commissioner of Land Records, Gwalior. Most of the data for the year 1970-71 for present Madhya Pradesh have been calculated by subtracting the data of the districts of
Chhattisgarh. The percentages have calculated on the basis of total number and area under all the holdings at district level.

**Number and Size of the operational Holdings**

The size of a farm land is one of the important factors of agricultural development and for accelerating the agricultural production by applying modern farm technology. In Madhya Pradesh, the number of families is increasing and they want to live separately, instead of in a joint family. Therefore, their properties are dividing into these nucleus families and this is resulting in the partition of their farmlands. Consequently, the large size holdings are dividing into the smaller size, often widely scattered pieces of land.

An operational holding is a land which is wholly or partly used for agricultural production and is operated as one technical unit by one person alone or with a joint family (Jain, 1988). The distinctive factor in the determination of a holding is that it is under single management having its one set of facilities and resources both technically and financially. In the state, agriculture is the main and traditional occupation of the majority of the population. Nearly three-fourth of the total population lives in the rural areas and nearly three-fourth of the working population is directly engaged in agricultural sector in the state. More than three-fourth (84.4 %) of rural workers are engaged in the farming in which more than 68.4 per cent are classed as cultivators. The availability of non-agricultural occupation in the state are limited in the present rural set up therefore, the entire population is dependent on the farmland for their livelihood. The pressure of population in the state is increasing continuously (Mishra, 2002). The number of families is also increasing and the pressure of these families is increasing on the farmlands. This is resulted in the partition of families and their
farmlands. Thus, the size of holdings is determined by the law of succession and increasing burden and dependency of population on farmland.

The average size of operational holdings is about 2.5 hectares in the year 1995-96 in the state (New Madhya Pradesh). The number of operational holdings in this state was more than 66.37 thousand. The highest number of holdings is of 1 to 2 hectares (25.2 %), and lowest are of above 20 hectares (0.5 %), while the highest area of holdings is of 5 to 10 hectares (25.6 %), and lowest is of below 0.5 hectares (1.9 %). Therefore, as per the number of holdings the common size of holding is of 1 to 2 hectares, while as per the area of holdings the common size of holding is of 5 to 10 hectares (Table 4.1).

Three-fourth (75 %) of the total holdings is of less than 3 hectares and these holdings have more than one-third (34.7 %) of the total area of the state. Moreover, more than one-third (36.2 %) are of less than one hectare of land and comprise 6.8 per cent of total area. Less than two-third (61.4 %) of total holdings are of below two hectares in size comprising 21.5 per cent of area. On the other hand, only 2.05 per cent of holdings are of largest in size (more than 10 hectares), which have occupied about 19.9 per cent (3294 thousand hectares) area and about 3.1 per cent (1050 thousand) of the total holdings.

The land holdings of the state can be grouped into following five categories according to its size:
(a) Marginal size of land holdings (below 0.5 hectare),
(b) Small size of land holdings (1- 2 hectares),
(c) Semi-medium size of land holdings (2 - 5 hectares),
(d) Medium size of land holdings (5- 10 hectares),
(e) Large size of land holdings (above 10 hectares).
Table 4.1
Number of Operational Holdings in Madhya Pradesh
1970-71 to 1995-96

<table>
<thead>
<tr>
<th>Size of Holding (Hectare)</th>
<th>1970-71 (Lakh)</th>
<th>%</th>
<th>1995-96 (Lakh)</th>
<th>%</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -0.5</td>
<td>6.75</td>
<td>17.6</td>
<td>12.20</td>
<td>18.4</td>
<td>80.7</td>
</tr>
<tr>
<td>0.5 - 1</td>
<td>4.34</td>
<td>11.3</td>
<td>11.82</td>
<td>17.8</td>
<td>172.4</td>
</tr>
<tr>
<td>1 - 2</td>
<td>6.27</td>
<td>16.4</td>
<td>16.72</td>
<td>25.2</td>
<td>166.7</td>
</tr>
<tr>
<td>2 - 3</td>
<td>4.57</td>
<td>11.9</td>
<td>9.04</td>
<td>13.6</td>
<td>97.8</td>
</tr>
<tr>
<td>3 - 4</td>
<td>3.30</td>
<td>8.6</td>
<td>5.10</td>
<td>7.7</td>
<td>54.5</td>
</tr>
<tr>
<td>4 - 5</td>
<td>2.67</td>
<td>7.0</td>
<td>3.45</td>
<td>5.2</td>
<td>29.2</td>
</tr>
<tr>
<td>5 - 10</td>
<td>6.37</td>
<td>16.6</td>
<td>6.20</td>
<td>9.3</td>
<td>-2.7</td>
</tr>
<tr>
<td>10 - 20</td>
<td>3.09</td>
<td>8.1</td>
<td>1.71</td>
<td>2.6</td>
<td>-44.7</td>
</tr>
<tr>
<td>Above 20</td>
<td>0.91</td>
<td>2.4</td>
<td>0.34</td>
<td>0.5</td>
<td>-62.6</td>
</tr>
<tr>
<td>Total</td>
<td>38.27</td>
<td>100.0</td>
<td>66.37</td>
<td>100.0</td>
<td>73.4</td>
</tr>
</tbody>
</table>


(i) Below 0.5 hectare: The number of marginal size of holdings (below 0.5 hectare) was about 1219.7 thousand, which was about 18.4 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these small holdings was 319.3 thousand hectares, which was 1.93 per cent of total holdings during the period.

The number of marginal size of holdings (below 0.5 hectare) ranges from 6.2 per cent (9.4 thousand) in Khandwa district to 37.2 per cent (86.4 thousand) in Balaghat district during the year. Similarly, the area under marginal size of holdings (below 0.5 hectare) ranges from 0.5 per cent (2.6 thousand hectares) in Vidisha district to 6.8 per cent (21.2 thousand hectares) in Balaghat district during the year. Spatially, the number and area under tiny size of holdings is high and very high in the eastern districts and the northern districts of the state;
while it is low and very low in the western part of the state (Map 4.1 & 4.2).

Table 4.2

Area of Operational Holdings in Madhya Pradesh,
1970-71 to 1995-96

<table>
<thead>
<tr>
<th>Size of Holding (Hectare)</th>
<th>1970-71 (Lakh Hectares)</th>
<th>%</th>
<th>1995-96 (Lakh Hectares)</th>
<th>%</th>
<th>% Change 1970-71 to 1995-96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -0.5</td>
<td>1.45</td>
<td>0.89</td>
<td>3.19</td>
<td>1.9</td>
<td>120.0</td>
</tr>
<tr>
<td>0.5 - 1</td>
<td>3.08</td>
<td>1.89</td>
<td>8.13</td>
<td>4.9</td>
<td>164.0</td>
</tr>
<tr>
<td>1 - 2</td>
<td>9.20</td>
<td>5.64</td>
<td>24.35</td>
<td>14.7</td>
<td>164.7</td>
</tr>
<tr>
<td>2 - 3</td>
<td>11.32</td>
<td>6.94</td>
<td>21.88</td>
<td>13.2</td>
<td>93.3</td>
</tr>
<tr>
<td>3 - 4</td>
<td>11.48</td>
<td>7.03</td>
<td>17.17</td>
<td>10.4</td>
<td>49.6</td>
</tr>
<tr>
<td>4 - 5</td>
<td>11.96</td>
<td>7.33</td>
<td>15.30</td>
<td>9.2</td>
<td>27.9</td>
</tr>
<tr>
<td>5 - 10</td>
<td>44.90</td>
<td>27.51</td>
<td>42.46</td>
<td>25.6</td>
<td>-5.43</td>
</tr>
<tr>
<td>10 - 20</td>
<td>41.58</td>
<td>25.48</td>
<td>22.97</td>
<td>13.9</td>
<td>-44.8</td>
</tr>
<tr>
<td>Above 20</td>
<td>28.22</td>
<td>17.29</td>
<td>9.97</td>
<td>6.0</td>
<td>64.7</td>
</tr>
<tr>
<td>Total</td>
<td>163.19</td>
<td>100.0</td>
<td>165.78</td>
<td>100.0</td>
<td>1.59</td>
</tr>
</tbody>
</table>


(ii) 0.5 to 1 hectare: The number of marginal size of holdings (0.5 to 1 hectare) was about 1182 thousand, which was about 17.8 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these small holdings was 813 thousand hectares, which was 4.9 per cent of total holdings during the period.

The number of marginal size of holdings (0.5 to 1 hectare) ranges from 10.3 per cent (12.7 thousand) in Raisen district to 23.4 per cent (57.7 thousand) in Morena district during the year. Moreover, the area under marginal size of holdings (0.5 to 1 hectare) ranges from 1.7 per cent (9.3 thousand hectares) in Vidisha district to 11.3 per cent (35.4 thousand hectares) in Balaghat district during the year.
Spatially, the number and area of marginal size of holdings is high and very high in the eastern districts and the northern districts of the state; while it is low and very low in the western part and southern part of the state (Map 4.3 & 4.4).

### Table 4.3

**Changes in Number and Area of Operational Holdings in Madhya Pradesh, 1970-71 to 1995-96**

<table>
<thead>
<tr>
<th>Size of Holding (Hectare)</th>
<th>Number of Holding (Lakh)</th>
<th>% Change</th>
<th>Area of Holding (Lakh hectares)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -0.5</td>
<td>6.75</td>
<td>12.20</td>
<td>80.7</td>
<td>3.19</td>
</tr>
<tr>
<td>0.5 - 1</td>
<td>4.34</td>
<td>11.82</td>
<td>172.4</td>
<td>3.08</td>
</tr>
<tr>
<td>1 - 2</td>
<td>6.27</td>
<td>16.72</td>
<td>166.4</td>
<td>9.20</td>
</tr>
<tr>
<td>2 - 3</td>
<td>4.57</td>
<td>9.04</td>
<td>97.8</td>
<td>11.32</td>
</tr>
<tr>
<td>3 - 4</td>
<td>3.30</td>
<td>5.10</td>
<td>54.5</td>
<td>11.48</td>
</tr>
<tr>
<td>4 - 5</td>
<td>2.67</td>
<td>3.45</td>
<td>29.2</td>
<td>11.96</td>
</tr>
<tr>
<td>5 - 10</td>
<td>6.37</td>
<td>6.20</td>
<td>-2.7</td>
<td>44.90</td>
</tr>
<tr>
<td>10 - 20</td>
<td>3.09</td>
<td>1.71</td>
<td>-44.7</td>
<td>41.58</td>
</tr>
<tr>
<td>Above 20</td>
<td>0.91</td>
<td>0.34</td>
<td>-62.6</td>
<td>28.22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38.27</strong></td>
<td><strong>66.37</strong></td>
<td><strong>73.4</strong></td>
<td><strong>163.19</strong></td>
</tr>
</tbody>
</table>


(iii) **1 to 2 hectares**: The number of very small size of holdings (1 to 2 hectares) was about 1672 thousand, which was about 25.2 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these very small holdings was 2435 thousand hectares, which was 14.7 per cent of total holdings during the period.
4.3 MADHYA PRADESH
NUMBER OF HOLDINGS
(0.5 TO 1.0 HEC)

% of Average
110 19.6
100 17.8
90 16.0
80 14.2

4.4 MADHYA PRADESH
AREA OF HOLDINGS
(0.5 to 1.0 HEC)

% of Average
120 5.9
110 5.4
100 4.9
90 4.4
The number of very small size of holdings (1 to 2 hectares) ranges from 2.7 per cent (3.8 thousand) in Panna district to 36.5 per cent (85.3 thousand) in Chhindwara district during the year. Moreover, the area under very small size of holdings ranges from 1.5 per cent (52.2 thousand hectares) in Bhind district to 23.5 per cent (67.0 thousand hectares) in Tikamgarh district during the year.

Spatially, the number and area of very small size of holdings is high and very high in the Narsimhapur plain, Sehore-Raisen plateau, the Nimar uplands and the Bundelkhand uplands; while it is low and very low in the eastern part of the state (Map 4.5 & 4.6).

(iv) 2 to 3 hectares: The number of small size of holdings (2 to 3 hectares) was about 904 thousand, which was about 13.6 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these small holdings was 2188 thousand hectares, which was 13.2 per cent of total holdings during the period.

The number of small size of holdings (2 to 3 hectares) ranges from 8.9 per cent (20.8 thousand) in Balaghat district to 18.1 per cent (41.2 thousand) in Khargone district during the year. Moreover, the area under small size of holdings ranges from 7.8 per cent (42.1 thousand hectares) in Vidisha district to 19.5 per cent (55.5 thousand hectares) in Tikamgarh district during the year. Spatially, the number of small size of holdings is high and very high in the Nimar uplands, parts of the Malwa plateau, and Guna -Shivpuri plateau; while it is low and very low in the eastern and northern parts of the state (Map 4.7).

On the other hand, the area under small size of holdings is high and very high in the Bundelkhand uplands, Morena plateau, Shivpuri plateau, Chhindwara-Balaghat plateau and the Singrauli basin; while it is low and very low in the western, central and eastern parts of the state (Map 4.8).
(v) 3 to 4 hectares: The number of semi-medium size of holdings (3 to 4 hectares) was about 510 thousand, which was about 7.7 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these holdings was 1717 thousand hectares, which was 10.4 per cent of total holdings during the period.

The number of semi-medium size of holdings (3 to 4 hectares) ranges from 4.3 per cent (9.8 thousand) in Balaghat district to 9.8 per cent (11.9 thousand) in Vidisha district during the year. Moreover, the area under semi-medium size of holdings (3 to 4 hectares) ranges from 0.8 per cent (4.3 thousand hectares) in Ujjain district to 14.2 per cent (53.3 thousand hectares) in Jhabua district during the year.

Spatially, the number of semi medium size of holdings is high and very high in the Nimar uplands, the Malwa plateau, and Shivpuri plateau; while it is low and very low in the eastern and northern parts of the state (Map 4.9). On the other hand, the area under semi medium size of holdings is high and very high in the Madhya Bharat plateau and south-eastern plateau region; while it is low and very low in the eastern part of the Malwa plateau the Bundelkhand uplands, Rewa plateau and the Singrauli basin (Map 4.10).

(vi) 4 to 5 hectares: The number of medium size of holdings (4 to 5 hectares) was about 345 thousand, which was about 5.2 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these holdings was 1530 thousand hectares, which was 9.2 per cent of total holdings during the period.

The number of medium size of holdings (4 to 5 hectares) ranges from 2.4 per cent (5.6 thousand) in Balaghat district to 7.7 per cent (9.4 thousand) in Raisen district during the year. Moreover, the total area under medium size of holdings ranges from 7.4 per cent (39.9 thousand hectares) in Vidisha district to 10.6 per cent (59.9 thousand hectares) in Mandla district during the year.
Spatially, the number of medium size of holdings is high and very high in the Malwa plateau, the Nimar uplands, Betul plateau and Shivpuri-Guna plateau; while it is low and very low in the northern and north-eastern parts of the state (Map 4.11).

Moreover, the area under medium size of holdings is high and very high in a continuous belt on the Satpura region, parts of the Madhya Bharat plateau, part of the Malwa plateau and the Rewa. It is moderate in the Bundelkhand uplands, Morena plateau and Gwalior plain; while it is low and very low in the Balaghat plateau, Vidisha plateau and the Singrauli basin (Map 4.12).

(vii) 5 to 10 hectares: The number of medium size of holdings (5 to 10 hectares) was about 620 thousand, which was about 9.3 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these holdings was 4246 thousand hectares, which was 24.6 per cent of total holdings during the period.

The number of medium size of holdings (5 to 10 hectares) ranges from 3.6 per cent (8.2 thousand) in Balaghat district to 16.5 per cent (20.1 thousand) in Vidisha district during the year. Moreover, the total area under medium size of holdings ranges from 16.7 per cent (47.5 thousand hectares) in Tikamgarh district to 30.3 per cent (124.1 thousand hectares) in Sehore district.

Spatially, the number of medium size of holdings is high and very high in the Malwa plateau, the Nimar uplands, Betul plateau and Guna plateau; while it is low and very low in the northern, eastern and north-eastern parts of the state (Map 4.13). The area of medium size of holdings is high and very high in the Malwa plateau, the Nimar uplands, the Satpura region and parts of the Madhya Bharat plateau; while it is low and very low in the Bundelkhand uplands, the Rewa plateau, the Singrauli basin and Morena plateau (Map 4.14).
4.11 MADHYA PRADESH
NUMBER OF HOLDINGS
(4.0 TO 5.0 HEC)
1995-96

% of Average %
120 6.2
110 5.7
100 5.2
90 4.7

4.12 MADHYA PRADESH
AREA OF HOLDINGS
(4.0 TO 5.0 HEC)

% of Average %
110 11.0
100 9.2
90 8.3
80 7.4
(viii) **10 to 20 hectares:** The number of large size of holdings (10 to 20 hectares) was about 171 thousand, which was about 2.6 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these large holdings was 2297 thousand hectares, which was 13.9 per cent of total holdings during the period.

The number of large size of holdings (10 to 20 hectares) ranges from 0.6 per cent (1.3 thousand) in Balaghat district to 7.1 per cent (8.7 thousand) in Vidisha district during the year. Moreover, the total area under large size of holdings ranges from 4.4 per cent (12.4 thousand hectares) in Tikamgarh district to 23.1 per cent (124.4 thousand hectares) in Vidisha district during the year. Spatially, the area and number of medium size of holdings is high and very high in the Malwa plateau, the Nimar uplands, Betul plateau, Seoni plateau and Guna plateau; while it is low and very low in the northern, eastern and southeastern parts of the state (Map 4.15 & 4.16).

(ix) **Above 20 hectares:** The number of large size of holdings (above 20 hectares) was about 34 thousand, which was about 0.5 per cent of the total numbers of holdings in the state during the year 1995-96 and the area under these large holdings was 997 thousand hectares, which was 6.0 per cent of total holdings during the period.

The number of large size of holdings (above 20 hectares) ranges from 0.05 per cent (78 only) in Jhabua district to 2.5 per cent (3.12 thousand) in Vidisha district during. Moreover, the area under large size holdings (above 20 hectares) ranges from 0.6 per cent (2.1 thousand hectares) in Jhabua district to 18.1 per cent (97.43 thousand hectares) in Vidisha district during the year.
The number of very large size of holdings (above 20 hectares) is higher in the districts of Vidisha (2.5 %), Raisen (1.2%), Ujjain (1.1%), Dewas (1.5%), Hoshangabad (1.6 %), Guna (1 %), Bhopal (0.9 %) and Sehore (0.9 %). The area under very large size of holdings is higher in the districts of Vidisha (18.1 %), Dewas (11.2%), Raisen (10.5%), Ujjain (9.2 %), Bhopal (7.6 %) and Sehore (8.9 %), Indore (8.1 %), Guna (9.9 %), Panna (17.8 %), Hoshangabad (13.7 %), Sagar (9.1 %), Rewa (10.3%) and Shahdol (12.5 %).

The number and area of large size of holdings (above 20 hectares) has recorded a decreasing trend in the state during last three decades. It is evident from the facts that the number of these holdings has decreased by 62.6 per cent, from 91 thousand in 1970-71 to 34 thousand in 1995-96. Similarly, the area under these holdings has decreased by 64.7 per cent, from 2822 thousand in 1970-71 to 993 thousand in 1995-96.

The number and area of these holdings has decreased in all the districts of the state during the period. The high and very high decrease has been recorded in 11 districts. They are Jabalpur, Balaghat, Chhindwara, Mandla, Panna, Satna, Shahdol, Morena, Bhind, Jhabua, and Sehore. On the other hand, the low and very decrease has been recorded in six districts; they are Sagar, Shivpuri, Guna, Vidisha, Hoshangabad, and Harda.

Similarly, the high and very high decrease has been recorded in 10 districts. They are Jabalpur, Balaghat, Chhindwara, Mandla, Panna, Satna, Tikamgarh, Jhabua, Betul and Sehore. On the other hand, the low and very decrease has been recorded in four districts; they are Sagar, Guna, Mandsaur and Vidisha.
Changes in the number of operational Holdings

In Madhya Pradesh, the number of all the holdings has recorded 73.4 per cent increase in the state during 1970-71 to 1995-96, from 3837 thousand to 6637 thousand. The large size holdings are converting into marginal and small size of land holdings and therefore the number of holdings is increasing continuously. This fragmentation of large farmland into tiny parts is a regular feature in this state and this is the result of increasing pressure of population on agricultural resources (Mishra, 2002). The highest increase in the number of holdings has recorded by marginal and small size of holdings. It is evident from the facts that the highest increase has recorded by the marginal size of holdings (0.5 to 1 hectare), i.e. 172 per cent from 434 thousand (1970-71) to 1182 thousand (1995-96), in the state (Table 4.3). Similarly, the very high increase has recorded by the very small size of holdings (1 to 2 hectares), i.e. 167 per cent from 627 thousand (1970-71) to 1672 thousand (1995-96), in the state. The higher increase has recorded by the small size of holdings (2 to 3 hectares), i.e. 97.8 per cent from 457 thousand (1970-71) to 904 thousand (1995-96), in the state. While the semi-medium (3 to 4 hectares) size of holdings has recorded 54.5 per cent change in the state during 1970-71 to 1995-96, from 330 thousand to 510 thousand. The medium (4 to 5 hectares) size of holdings has recorded 29.2 per cent change in the state during 1970-71 to 1995-96, from 267 thousand to 345 thousand.

On the other hand, the number of large size of holdings has recorded negative change in the state during 1970-71 to 1995-96. The highest decrease in the number of holdings has recorded by large size of holdings and the lowest decrease in the number of holdings has recorded by the medium size of holdings. It is evident from the facts that the large size of holdings (above 20 hectares) has recorded 62.6 per cent
decrease, from 91 thousand (1970-71) to 34 thousand (1995-96) in the state. Similarly, the very high decrease has recorded by 10 to 20 hectares size, i.e. 44.7 per cent from 309 thousand (1970-71) to 171 thousand (1995-96). While the medium size of holdings (5 to 10 hectares) has recorded about 2.7 per cent decrease during 1970-71 to 1995-96, from 637 thousand to 620 thousand (Table 4.4).

The changes in the number of different size of holdings during 1970-71 to 1995-96 in the state as a whole and district wise are described in the following section:

The number of tiny size of holdings (below 0.5 hectare) has recorded 80.5 per cent change during 1970-71 to 1995-96, from 675.6 thousand to 1219.7 thousand in the state. The highest change (300 %) in the number of tiny size of holdings (below 0.5 hectare) has recorded in Jhabua district and the lowest change (5.6 %) has recorded in Khandwa district during the period.

The number of marginal size of holdings (0.5 to 1 hectare) has recorded 172.4 per cent change during 1970-71 to 1995-96, from 434 thousand to 1182 thousand in the state. The highest change (600 %) in the number of marginal size of holdings (0.5 to 1 hectare) has recorded in Raisen district and the lowest change (56.5 %) has recorded in Morena district during the period.

The number of very small size of holdings (1 to 2 hectares) has recorded 166.7 per cent change during 1970-71 to 1995-96, from 627 thousand to 1672 thousand in the state. The highest change (622.9 %) in the number of very small of holdings (1 to 2 hectares) has recorded in Raisen district and the lowest change (45.8 %) has recorded in Bhind district during the period.

The number of small size of holdings (2 to 3 hectares) has recorded 97.8 per cent change during 1970-71 to 1995-96, from 457 thousand to 904 thousand in the state. The highest change (235.3 %) in
the number of small size of holdings (2 to 3 hectares) has recorded in Betul district and the lowest change (20.8 %) has recorded in Morena district during the period.

Table 4.4  
Districts with Highest and lowest change in Area of Operational Holdings in Madhya Pradesh, 1970-71 to 1995-96

<table>
<thead>
<tr>
<th>Size of Holding (Hectare)</th>
<th>District with Highest %</th>
<th>%</th>
<th>District with Lowest %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -0.5</td>
<td>Jhabua</td>
<td>300.0</td>
<td>Khandwa</td>
<td>5.6</td>
</tr>
<tr>
<td>0.5 - 1</td>
<td>Raisen</td>
<td>600.0</td>
<td>Morena</td>
<td>56.5</td>
</tr>
<tr>
<td>1 -2</td>
<td>Raisen</td>
<td>622.9</td>
<td>Bhind</td>
<td>45.8</td>
</tr>
<tr>
<td>2 - 3</td>
<td>Betul</td>
<td>235.3</td>
<td>Morena</td>
<td>20.8</td>
</tr>
<tr>
<td>3 - 4</td>
<td>Jhabua</td>
<td>148.4</td>
<td>Tikamgarh</td>
<td>6.0</td>
</tr>
<tr>
<td>4 - 5</td>
<td>Indore</td>
<td>80.0</td>
<td>Bhind</td>
<td>2.6</td>
</tr>
<tr>
<td>5 - 10</td>
<td>Ujjain</td>
<td>19.5</td>
<td>Mandla</td>
<td>3.5</td>
</tr>
<tr>
<td>10 - 20</td>
<td>Jhabua</td>
<td>-77.6</td>
<td>Guna</td>
<td>-8.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of Holding (Hectare)</th>
<th>District with Highest %</th>
<th>%</th>
<th>District with Lowest %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -0.5</td>
<td>Jhabua</td>
<td>342.9</td>
<td>Narsimhapur</td>
<td>36.4</td>
</tr>
<tr>
<td>0.5 - 1</td>
<td>Raisen</td>
<td>630.8</td>
<td>Morena</td>
<td>54.3</td>
</tr>
<tr>
<td>1 -2</td>
<td>Raisen</td>
<td>636.6</td>
<td>Bhind</td>
<td>47.0</td>
</tr>
<tr>
<td>2 - 3</td>
<td>Jhabua</td>
<td>294.2</td>
<td>Morena</td>
<td>18.6</td>
</tr>
<tr>
<td>3 - 4</td>
<td>Jhabua</td>
<td>146.8</td>
<td>Morena</td>
<td>3.8</td>
</tr>
<tr>
<td>4 - 5</td>
<td>Betul</td>
<td>66.9</td>
<td>Bhind</td>
<td>2.6</td>
</tr>
<tr>
<td>5 - 10</td>
<td>Indore</td>
<td>32.5</td>
<td>Mandla</td>
<td>0.1</td>
</tr>
<tr>
<td>10 - 20</td>
<td>Jhabua</td>
<td>-78.2</td>
<td>Vidisha</td>
<td>-19.4</td>
</tr>
</tbody>
</table>


The number of semi-medium size of holdings (3 to 4 hectares) has recorded 54.5 per cent change during 1970-71 to 1995-96, from 330 thousand to 510 thousand in the state. The highest change (148.4 %) in the number of semi-medium size of holdings (3 to 4 hectares)
has recorded in Jhabua district and the lowest change (6.0 %) has recorded in Tikamgarh district during the period.

The number of medium size of holdings (4 to 5 hectares) has recorded 29.2 per cent change during 1970-71 to 1995-96, from 267 thousand to 345 thousand in the state. The highest change (80.3 %) in the number of medium size of holdings (4 to 5 hectares) has recorded in Indore district and the lowest change (2.6 %) has recorded in Bhind district during the period.

The number of large medium size of holdings (5 to 10 hectares) has recorded -2.7 per cent change during 1970-71 to 1995-96, from 637 thousand to 620 thousand in the state. The highest change (19.5 %) in the number of large medium size of holdings (5 to 10 hectares) has recorded in Ujjain district and the lowest change (3.5 %) has recorded in Mandla district during the period.

The number of large size of holdings (10 to 20 hectares) has recorded negative change i.e. -44.7 per cent during 1970-71 to 1995-96, from 309 thousand to 171 thousand in the state. The highest negative change (-77.6 %) in the number of large size of holdings (10 to 20 hectares) has recorded in Jhabua district and the lowest change (8.8 %) has recorded in Guna district during the period.

The number of large size of holdings (above 20 hectares) has recorded a decreasing trend in the state during last three decades. It is evident from the facts that the number of these holdings has decreased by 62.6 per cent, from 91 thousand in 1970-71 to 34 thousand in 1995-96.

The number of these holdings has decreased in all the districts of the state during the period. The high and very high decrease has been recorded in 11 districts. They are Jabalpur, Balaghat, Chhindwara, Mandla, Panna, Satna, Shahdol, Morena, Bhind, Jhabua, and Sehore. On the other hand, the low and very decrease has been
recorded in six districts; they are Sagar, Shivpuri, Guna, Vidisha, Hoshangabad, and Harda.

Changes in the Area of operational Holdings

The area of all the holdings has recorded 1.59 per cent increase in the state during 1970-71 to 1995-96, from 16319 thousand hectares to 16578 thousand hectares. The fragmentation of large farmland into tiny parts is a regular feature in this state, therefore the marginal and small size of holdings are increasing continuously in the state during last three decades. The highest increase in the area of holdings has recorded by marginal and very small size of holdings. It is evident from the facts that very small size of holdings (1 to 2 hectare) has recorded 164.7 per cent increase in its area, from 920 thousand hectares (1970-71) to 2435 thousand hectares (1995-96); while the marginal size of holdings (0.5 to 1 hectare) has recorded 164 per cent from 308 thousand hectares (1970-71) to 813 thousand hectares (1995-96) in the state. The similar increase has recorded by marginal size of holdings (below 0.5 hectare) i.e. 120 per cent from 145 thousand hectares (1970-71) to 345 thousand hectares (1995-96) in the state. A moderate increase has also recorded by small size of holdings (2 to 3 hectares) i.e. 93.3 per cent from 1132 thousand hectares (1970-71) to 2188 thousand hectares (1995-96). Relatively, lower increase has recorded by medium size of holdings (4 to 5 hectares) i.e. 27.9 per cent from 1196 thousand hectares (1970-71) to 1530 thousand hectares (1995-96).

On the other hand, area under medium, large and very large size of holdings has recorded negative change in the state during 1970-71 to 1995-96. The highest decrease in the area under holdings has recorded by very large size of holdings and the lowest decrease in the number of holdings has recorded by the medium size of holdings. It is
evident from the facts that area under the very large size of holdings (above 20 hectares) has recorded 64.7 per cent decrease in area, from 2822 thousand hectares (1970-71) to 997 thousand hectares (1995-96) in the state. Similarly, the very high decrease in area has also recorded in the large size of holdings (10 to 20 hectares), i.e. 44.8 per cent from 4158 thousand hectares (1970-71) to 2297 thousand hectares (1995-96). While the area under medium size of holdings (5 to 10 hectares) has recorded about 5.43 per cent decrease during 1970-71 to 1995-96, from 4490 thousand hectares to 4246 thousand hectares (Table 4.3).

The changes in the area of different size of holdings during 1970-71 to 1995-96 in the state as a whole and district wise are described in the following section:

The area under tiny size of holdings (below 0.5 hectare) has recorded 120 per cent change during 1970-71 to 1995-96, from 145 thousand hectares to 319 thousand hectares in the state. The highest change (342.9 %) in the area under tiny size of holdings (below 0.5 hectare) has recorded in Jhabua district and the lowest change (36.4 %) has recorded in Narsimhapur district during the period (Table 4.4).

The area under marginal size of holdings (0.5 to 1 hectare) has recorded 164 per cent change during 1970-71 to 1995-96, from 308 thousand hectares to 813 thousand hectares in the state. The highest change (630.8 %) in the area under marginal size of holdings (0.5 to 1 hectare) has recorded in Raisen district and the lowest change (54.3 %) has recorded in Morena district during the period.

The area under very small size of holdings (1 to 2 hectares) has recorded 164.7 per cent change during 1970-71 to 1995-96, from 920 thousand hectares to 2435 thousand hectares in the state. The highest change (636.6 %) in the area under very small size of holdings (1 to 2 hectares) has recorded in Raisen district and the lowest change (47.0 %) has recorded in Bhind district during the period.
The area under small size of holdings (2 to 3 hectares) has recorded 93.3 per cent change during 1970-71 to 1995-96, from 1132 thousand hectares to 2188 thousand hectares in the state. The highest change (294.2 %) in the area under small size of holdings (2 to 3 hectares) has recorded in Jhabua district and the lowest change (18.6 %) has recorded in Morena district during the period.

The area under semi medium size of holdings (3 to 4 hectares) has recorded 49.6 per cent change during 1970-71 to 1995-96, from 1148 thousand hectares to 1717 thousand hectares in the state. The highest change (146.8 %) in the area under semi medium size of holdings (3 to 4 hectares) has recorded in Jhabua district and the lowest change (3.8 %) has recorded in Morena district during the period.

The area under medium size of holdings (4 to 5 hectares) has recorded 27.9 per cent change during 1970-71 to 1995-96, from 1196 thousand hectares to 1530 thousand hectares in the state. The highest change (66.9 %) in the area under medium size of holdings (4 to 5 hectares) has recorded in Betul district and the lowest change (2.6 %) has recorded in Bhind district during the period.

The area under large medium size of holdings (5 to 10 hectares) has recorded -5.43 per cent change during 1970-71 to 1995-96, from 4490 thousand hectares to 4240 thousand hectares in the state. The highest change (32.5 %) in the area under large medium size of holdings (5 to 10 hectares) has recorded in Indore district and the lowest change (0.06 %) has recorded in Balaghat district during the period.

The area under large size of holdings (10 to 20 hectares) has recorded a decrease of -44.8 per cent during 1970-71 to 1995-96, from 4158 thousand hectares to 2297 thousand hectares in the state. The highest decrease (-78.2%) in the area under large size of holdings (10 to 20 hectares) has recorded in Jhabua district and the lowest decrease (-19.4 %) has recorded in Vidisha district during the period.
The area of large size of holdings (above 20 hectares) has recorded a decreasing trend in the state during last three decades. It is evident from the facts that the area under these holdings has decreased by 64.7 per cent, from 2822 thousand in 1970-71 to 993 thousand in 1995-96.

The high and very high decrease has been recorded in 10 districts. They are Jabalpur, Balaghat, Chhindwara, Mandla, Panna, Satna, Tikamgarh, Jhabua, Betul and Sehore. On the other hand, the low and very decrease has been recorded in four districts; they are Sagar, Guna, Mandsaur and Vidisha.

**Conclusions**

1. The number of operational holdings in this state was more than 66.37 thousand, and the average size of operational holdings was about 2.5 hectares in the year 1995-96 in the state (New Madhya Pradesh).

2. The highest number of holdings is of 1 to 2 hectares (25.2 %), and lowest are of above 20 hectares (0.5 %), while the highest area of holdings is of 5 to 10 hectares (25.6 %), and lowest is of below 0.5 hectares (1.9 %). Therefore, as per the number of holdings the common size of holding is of 1 to 2 hectares, while as per the area of holdings the common size of holding is of 5 to 10 hectares.

3. Three-fourth (75 %) of the total holdings is of less than 3 hectares and these holdings have more than one-third (34.7 %) of the total area of the state. Moreover, more than one-third (36.2 %) are of less than one hectare of land and comprise 6.8 per cent of total area. Less than two-third (61.4 %) of total holdings are of below two hectares in size comprising 21.5 per cent of area.

4. On the other hand, only 2.05 per cent of holdings are of largest in size (more than 10 hectares), which have occupied about 19.9 per cent
(3294 thousand hectares) area and about 3.1 per cent (1050 thousand) of the total holdings.

5. The number of all the holdings has recorded 73.4 per cent increase in the state during 1970-71 to 1995-96, from 3837 thousand to 6637 thousand.

6. The large size holdings are converting into marginal and small size of land holdings and therefore the number of holdings is increasing continuously. The highest increase in the number of holdings has recorded by marginal and small size of holdings. The very small size of holdings (1 to 2 hectares) has recorded 167 per cent increase from 627 thousand (1970-71) to 1672 thousand (1995-96), in the state. The higher increase has recorded by the small size of holdings (2 to 3 hectares), i.e. 97.8 per cent from 457 thousand (1970-71) to 904 thousand (1995-96), in the state.

7. While the semi-medium (3 to 4 hectares) size of holdings has recorded 54.5 per cent change in the state during 1970-71 to 1995-96, from 330 thousand to 510 thousand. The medium (4 to 5 hectares) size of holdings has recorded 29.2 per cent change in the state during 1970-71 to 1995-96, from 267 thousand to 345 thousand.

8. The number of large size of holdings has recorded negative change in the state during 1970-71 to 1995-96. The highest decrease in the number of holdings has recorded by large size of holdings and the lowest decrease in the number of holdings has recorded by the medium size of holdings.

9. Similarly, the very high decrease has recorded by 10 to 20 hectares size, i.e. 44.7 per cent from 309 thousand (1970-71) to 171 thousand (1995-96). While the medium size of holdings (5 to 10 hectares) has recorded about 2.7 per cent decrease during 1970-71 to 1995-96, from 637 thousand to 620 thousand.
10. The area of these holdings has recorded only 1.59 per cent increase in the state during 1970-71 to 1995-96, from 16319 thousand hectares to 16578 thousand hectares.

11. The highest increase in the area of holdings has recorded by marginal and very small size of holdings. The similar increase has recorded by marginal size of holdings (below 0.5 hectare) i.e.120 per cent from 145 thousand hectares (1970-71) to 345 thousand hectares (1995-96) in the state.

12. A moderate increase has also recorded by small size of holdings (2 to 3 hectares) i.e.93.3 per cent from 1132 thousand hectares (1970-71) to 2188 thousand hectares (1995-96). Relatively, lower increase has recorded by medium size of holdings (4 to 5 hectares) i.e. 27.9 per cent from 1196 thousand hectares (1970-71) to 1530 thousand hectares (1995-96).

13. On the other hand, area under medium, large and very large size of holdings has recorded negative change in the state during 1970-71 to 1995-96. The highest decrease in the area under holdings has recorded by very large size of holdings and the lowest decrease in the number of holdings has recorded by the medium size of holdings.

14. Similarly, the very high decrease in area has also recorded in the large size of holdings (10 to 20 hectares), i.e. 44.8 per cent from 4158 thousand hectares (1970-71) to 2297 thousand hectares (1995-96). While the area under medium size of holdings (5 to 10 hectares) has recorded about 5.43 per cent decrease during 1970-71 to 1995-96, from 4490 thousand hectares to 4246 thousand hectares.

15. The number and area of large size of holdings (above 20 hectares) has recorded a decreasing trend in the state during last three decades. The number of these holdings has decreased by 62.6 per cent, from 91 thousand in 1970-71 to 34 thousand in 1995-96; while the area
under these holdings has decreased by 64.7 per cent, from 2822 thousand in 1970-71 to 993 thousand in 1995-96.

References


