CHAPTER I

ECONOMIC POSITION OF MADHYA PRADESH
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INTRODUCTION

The present State of Madhya Pradesh came into existence on November 1, 1956, as a result of reorganisation of the erstwhile States of Central Province, Madhya Bharat (excluding the Sunel enclave of the Mandasur district), Vindhyā Pradesh and Chopar States and Siranj subdivision of Kotal district of Rajasthan. These States had different levels of economic growth and industrial development at the time of reorganisation.

In area Madhya Pradesh is the largest State of India. It is the sixth most populous State in the country. It is centrally located and is almost entirely on the Deccan plateau. It is situated between the latitudes 17° 48' N to 26° 52' N and between longitudes 74° 2' E to 84° 24' E. Its area is 443,46 thousand square kilometer or 13.5 percent of the total area of the country. (Map 1)

The State lies on the table land of Central India. It is bounded on the north by Uttar Pradesh and Rajasthan on the west, by Gujarat; on the South by Maharashtra and Andhra Pradesh and on the east, by Orissa and Bihar. The State includes a large portion of the broad belt of hills and plateau country which separates the Northern plain from the Deccan. Thus it is

1. Known as old Madhya Pradesh (Mahakoshal)
2. With the dissolution of Bombay in 1960, it regained rank of largest.
MAP OF INDIA SHOWING AREA AND LOCATION OF MADHYA PRADESH
composed of diverse and heterogeneous areas.

For administrative purposes the State has been divided into 45 districts and 9 divisions.

Due to its central geographical position it is a watershed for hundreds of rivers that flow out of it in all directions feeding the Sanges and Jamuna to the North, to the Narbada and Tapti flowing Westward, to the Arabian Sea and the Wardha and Wainganga and Mahanadi flowing North and East towards the Bay of Bengal. The main valleys of the Narbada and Sone run diagonally across the State. Both the rivers rise in the Maikal range. The main river systems are the Chambal, the Betwa, the Sone, the Narbada, the Tapti, the Mahanadi and the Indravati. None of these rivers is, however, navigable to any great length but each of these provides ample potentialities for hydel-power.

The state is divided into five distinct geographical regions i.e. Northern Region, Malwa region, Narbada valley, Satpura Region and Chhattisgarh plains. These regions have their own distinct characteristics in matters of Climate, Soil, Cropping Pattern, density of population etc. The general climate in the Northern region is extreme. It is temperate and breezy in the Malwa Plateau and wet and humid in the eastern and southern parts. The average rainfall increases from West to East; while it is between 750 and 1250 mm in Bundelkhand and Vindhya Pradesh, it is nearly 1800 mm in the Central Madhya Pradesh Plateaux.
While the Malwa Region abounds in rich black Cotton Soil, the lowlands in the North have lighter soil with a proportion of sand in them, the Narbada valley is formed of deep alluvial soil and the Chhettiagarh plains have yellow and red sandy soil.

**ECONOMIC STRUCTURE.**

The State's economy is predominantly agricultural. Unlike most other states, the contribution of the agricultural sector to the income of the state is larger than that of the industrial sector. Moreover, the proportion of working force in the state engaged in agriculture is more than that of the country as a whole. Thus agriculture is the mainstay of the people in the state. It provides livelihood to 80 percent of its total working force. Thus industrial development in the state has been very poor in spite of vast and varied mineral and forest resources. The state has so far not been able to develop its industrial personality.

In order to judge the present economic position of the state and draw some conclusions, a study of certain economic indicators is essential.

**POPULATION.**

The 1971 census recorded a population of 416.5 lakhs - males 214.5 and females 202.0 lakhs, making it the sixth most populous state in the country. Thus it supports 7.6 percent of the population of the country. The State is sparsely
Populated. The density per sq. km. is only 94 persons as against 192 for country\(^3\) because of low urbanization and industrialization apart from the vastness of the area of the State.

Of the total population, 63.71 percent live in rural areas higher proportion than all-India (60.1%). Further the average size of villages in M.P. (452 persons per village) is much smaller than that of the average Indian village (971 persons). A little over 65% of M.P.'s rural population lives in settlements with less than 1000 people. In spite of improvement in the percentage of population living in higher size-classes as compared to the percentage in the previous decade, the State continues to be predominantly one of small villages. The scheduled tribe population is 83.9 lakhs and scheduled castes 54.5 lakhs constituting 20.14 and 13.09 percent of the State population. The scheduled tribes comprise 22.06 percent of the total population of the country and are more than in any other State. The south eastern part of the State has heavy concentration of scheduled tribes, while the northern and central parts contain comparatively greater proportion of scheduled castes.

The villages in M.P. are not only large in numbers (76914).\(^5\) They are more widely scattered also. Due to inadequate transport facilities, they are isolated and there are big difficulties in their economic integration.

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3. 'Commerce' Annual Number, Bombay, 1972 P.100
4. They include villages inhabited and un-inhabited.
5. According to 1971 census.
The level of urbanisation is low. Only 16.29 \%\textsuperscript{6} percent (as against 14.29 percent in 1961) of the State population lives in urban areas which is lower as compared with India-average of 20 percent. As per 1971 census, there are 251 towns and cities as against 208 in 1961. It is clear from the fact that there is a small shift to the urban centres over the decade, but the increase appears to be due to addition of new areas as towns.

The rate of growth in urban population in the decade ending 1971 was only 45.6 percent as against 47.7 percent in 1961. The corresponding figures for rural population, 25.69\% and 20.95\% respectively. This comparative study shows increasing and decreasing trends in rural and urban populations respectively over the decade (1961-71). Most of these towns/cities are either markets, administrative centres or transport junctions. Out of 251 towns, 11 have population over one lakh- Indore being largest with 5.6 lakh; 11 half to one lakh and the remaining 229 under half a lakh. However, there are only 11 districts viz. Gwalior, Mandsaur, Ratlam, Ujjain, Indore, Khajuraho, Sehore, Hoshangabad, Sagar, Jabalpur, Chhindwara where the percentage of urban Population to total population exceeds the State average of 16.29. Of these, 8 districts have a city each and are comparatively more industrialised areas in the State. More than half of the population lives in towns and cities in Gwalior and Indore

6. This shows an increase of only 2 points in a decade— a slow growth of urbanisation.

7. These areas include Govindpura, Beiragarh, Sagar Cantt, Jabalpur Cantt, Khajuria (OFA), Urug, Katni, (Ordinances Factory Area), New Katni Aty. Junction area, Tikuri, Nargada, Hari Drezai, Ifkhra, Bhamodi, Chandwada, Guteria, Badkihi, Chirwari Colliery, Panchmarhi Cantt and south Jharkhand colliery.
districts. The urban population in Jhansi district constitutes the highest population (10.88 percent) of the total urban population of the State.

LITERACY

As far as literacy is concerned, the State improved its position from 17.13 percent in 1961 to 22.14 percent in 1971 which is far below the all-India level of 29.45 percent. Among the 18 States and 11 Union Territories the State occupied the 23rd position. The rural-urban gap in literacy continues to be wide. Literacy in rural areas and urban areas is higher at 16.81 and 49.55 percent respectively in 1971 whereas the corresponding figure in 1961 was 12.73 percent and 43.52 percent respectively. Although female literacy is very low at 10.92 percent but it is interesting to note that literacy among females has shown a substantial progress over the decade viz. 62.26 percent. Thus the increase in the literacy rate during the decade 1961-71 works out to 29.25 percent which indicates that the State has undoubtedly moved forward in the field of literacy. But it has yet to make up a big leeway to come up to the all-India level.

WORKING FORCE

The working force of Madhya Pradesh which was 52.3 percent in 1961 came down to 36.72⁰ percent of the total population in 1971 as against 32.9 percent in the country. This steep fall in

8. It comprises 27.6 percent male workers and 9.0 percent female workers. These figures have been calculated.
the percentage of workers can be attributed to the changed definition of 'Worker' adopted for the year 1971 census. The percentage of male workers to total male population in the State is 53.7 percent and of female 18.6 percent. All the districts are divided into two groups according to their participation rates 'highest' and 'lowest' relative to the state average.

9. 'Worker' means a person whose main activity is participation in any economically productive work by his/her physical and mental activity. Work involves not only actual work but effective supervision and direction of work.

Non-workers constitute housewives, students, beggars, vagrants, retired persons, rent-receivers, dependents, unemployed persons classified in this category had their main activity in each case as uneconomic or unproductive.

'Workers' have been further classified into nine categories according to 'Industry' as per the National Industrial classification, 1970. The term 'Industry' means not only organised or manufacturing industry but also all other sectors of economic activity. Workers are classified into nine industrial categories such as (I) cultivators; (II) Agricultural labourers; (III) in livestock, forestry, fishing, hunting and plantations, orchards and allied activities; (IV) mining and quarrying; (V) in manufacturing processing, servicing and repair; (VI) in construction; (VII) in trade and commerce; (VIII) in transport and communication and (IX) in other services. 

Source: The Census of India, 1971
There are only 14 districts having participation rate higher than the state average, (Table 1), while Bastar district is having participation rate just equivalent to the state average.

**TABLE 1**

<table>
<thead>
<tr>
<th>State/Districts</th>
<th>Percentage of workers</th>
<th>State/Districts</th>
<th>Percentage of workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madhya Pradesh</td>
<td>36.7</td>
<td>Sichri</td>
<td>38.4</td>
</tr>
<tr>
<td>Durg</td>
<td>46.1</td>
<td>Mandsaur</td>
<td>38.0</td>
</tr>
<tr>
<td>Gwalior</td>
<td>43.0</td>
<td>Chhindwara</td>
<td>37.8</td>
</tr>
<tr>
<td>Mandsa</td>
<td>43.7</td>
<td>Satna</td>
<td>37.8</td>
</tr>
<tr>
<td>Raipur</td>
<td>42.7</td>
<td>Raigarh</td>
<td>37.4</td>
</tr>
<tr>
<td>Betul</td>
<td>41.9</td>
<td>Shahdol</td>
<td>37.2</td>
</tr>
<tr>
<td>Scindia</td>
<td>41.3</td>
<td>Panna</td>
<td>36.8</td>
</tr>
<tr>
<td>Bilaspur</td>
<td>40.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures of columns 1 and 3 have been calculated.

These districts form a continuous belt from North Eastern part to the South-Eastern part of the State with the exception of Mandsaur and Betul districts. The highest participation rate is found in Durg district (46.1%) where the Bhilai Steel Plant is located and the lowest is in Bhind district (28.9%).

The proportion of population in worker group is smaller in urban than in rural areas. According to census 1971 data, percent 28.1 percent of urban and 38.4 of the rural population in Madhya
Pradesh were workers compared with 29.3 percent and 33.8 percent respectively in all-India. 10 The high participation in rural areas in M.P. is due primarily to a relatively low population density, a large cultivated area per capita, the cropping pattern and the techniques of cultivation.

A distinguishing feature of Madhya Pradesh's working population is the high participation of females; there were 33 females to every 100 males in the State in the worker group as against 21 females to 100 males in the country, as a whole. The presence of a larger number of women in the worker group is due to some social factors, for example the greater degree of freedom allowed to women in Chhattisgarh, the large proportion of agricultural labourers in the population and the traditional allocation of certain types of work (paddy weeding and cotton picking to women.

Another noteworthy feature is the 'to and fro' seasonal mobility of labour between agriculture and mining.

**OCCUPATIONAL DISTRIBUTION.**

The occupational distribution of the State broadly follows the all-India pattern. As figures for the 1971 census reveal, in the Madhya Pradesh area stress is more on agricultural occupations both absolutely and relatively. Out of the total population of Madhya Pradesh 81.10 percent is agricultural and only 18.90 percent is non-agricultural, though the figures are in themselves nearer to the all-India percentages, being 72.10 percent and 27.90 percent respectively.

10 Figures have been calculated.
Table 2 shows the occupational distribution of workers in M.P. and in all-India in the year 1971.

**Table 2**

**Occupational Distribution of Workers in M.P. and in All-India (1971)**

<table>
<thead>
<tr>
<th>Category</th>
<th>MADHYA PRADESH</th>
<th>ALL-INDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of workers (in Lakh)</td>
<td>Percent to total</td>
</tr>
<tr>
<td>1. Agriculture and Allied Activities</td>
<td>124.01</td>
<td>81.10</td>
</tr>
<tr>
<td>2. Mining and Quarrying</td>
<td>0.98</td>
<td>0.64</td>
</tr>
<tr>
<td>3. Manufacturing Processing etc: (a) Household Industry</td>
<td>5.57</td>
<td>3.64</td>
</tr>
<tr>
<td>(b) Other than household Industry</td>
<td>4.65</td>
<td>3.04</td>
</tr>
<tr>
<td>4. Construction</td>
<td>1.20</td>
<td>0.77</td>
</tr>
<tr>
<td>5. Trade and Commerce</td>
<td>4.90</td>
<td>3.24</td>
</tr>
<tr>
<td>6. Transport, Storage and Communication</td>
<td>2.60</td>
<td>1.34</td>
</tr>
<tr>
<td>7. Other Services</td>
<td>9.53</td>
<td>6.23</td>
</tr>
</tbody>
</table>

Total: 152.90 100.00 1803.71 100.00

Figures of column Nos. 3 and 8 have been calculated.
The above table shows that the most important source of employment in Madhya Pradesh is agriculture and its allied activities. In 1971, this sector provided employment to 81.1 percent of all the engaged persons in the State as compared with 72.7 percent in all-India, mining and quarrying and industry employed 7.32 percent as against 9.9 percent in all-India; construction, trade and commerce and transport and communication 5.35 percent as compared to 9.2 percent in Indian Union, services 6.23 percent as against 8.8 percent in All-India. This analysis indicates the relative importance of agriculture and allied activities which are greater in the economy of Madhya Pradesh than in the country as a whole. If the mining and quarrying are considered separately it appears to be relatively more important here than in the country as a whole. It provided employment to 0.64 percent of all the employed persons as compared with 0.5 percent in the entire country. Household industry (cottage and small scale industry) as compared with other industry (large scale industry) was also more important in Madhya Pradesh. About 3.64 percent workers were employed in the Household industry. Thus it is evident from the above analysis that agricultural activities are predominant in the State, while the pace of industrialization is slow.

**STATE INCOME:**

According to the available estimates, Madhya Pradesh had per-capita income of Rs. 528\(^{11}\) (at current prices) during 1971-72 as compared to India's Rs. 661. In real terms, the per-capita

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\(^{11}\) It rose to Rs. 794 in 1974-75.
income of the state (at constant 1952-53 prices) increased from Rs. 197.6 in 1950-51 to Rs. 260.4 in 1960-61 and by 1971-72 to Rs. 278.9, recording annual average growth rate of 1.88% which is quite low as compared to 6.25% per annum for the state income. This is so because of high rate of growth of population. In the decade 1951-61 it was 2.9 percent and the annual growth rate of population was 2.4% and in 1961-71 it was 2.9%. This continued high growth rate of population calls for an accelerated process of development. In 1973-74, it again decreased from Rs. 278.9 in 1971-72 to Rs. 263 (1952-53). In 1974-75 it has been computed at only Rs. 252. This clearly shows that the state's per capita income at constant prices has not kept pace with the average per capita income in India which rose from Rs. 306 in 1960-61 to Rs. 340 in 1973-74.

The compound growth rate in per capita income during 1960-61 to 1970-71 was slower in M.P. as compared to the all-India average. It was only 0.12 percent against the country's average 1.02 percent. It shows a negligible rate of increase over a decade which indicates the relative backwardness of the State.

The Net State Domestic Product for the year 1955-56 at current and constant (1952-53) prices were Rs. 643.0 Crores and Rs. 674.0 Crores, while the corresponding figures stood by 1972-73 at Rs. 2733.0 Crores and Rs. 1161.7 Crores, respectively.

13. The Hindustan Times, Saturday, July 24, 1976, P.5
15. Ibid, P.1
Thus the NNP at current prices increased more than four times and at constant prices a little less than double during the intervening period. But these end-year estimates do not give a true picture particularly when there are sharp fluctuations in such estimates due to natural causes. Compound growth rates give a more accurate picture. The annual compound growth rate recorded 5.5 percent during the First Plan, 4.9% during the Second Plan, about 0.45% per annum during the Third Plan.

Though in the Three Annual Plans it went up sharply to 8.43%, it had a steep fall to 3.54% per annum during 1968-69 and 1973-74. From these figures it is clear that after the Third Plan period the growth rate picked-up to some extent showing a more favourable condition for economic development. But in subsequent years it started to fall steeply due to growth of population and increases in prices. Both have thus neutralized the effect of economic growth.

However, estimates of State Domestic Product do not give by themselves any idea of the Structure of the State's economy. The sectoral composition of State income gives such idea. Thus here the study of the sector-wise composition of State income is inevitable in order to know the structure of the State's economy as well as the importance of the different sectors in the State's economy. Table 3 depicts the sectoral distribution of State income at 1962-53 prices for the years 1950-51 to 1971-72 and shows that the character of the State's economy is predominantly agrarian. However, a shift is perceptible away

16. The Hindustan Times, New Delhi, Saturday, July 24, 1976, p. 5
from agriculture. The share of 'Agriculture and Allied activities' in the State's income declined from 64 percent in 1955-56 to 52.2 percent in 1971-72, that of 'Mining and Manufacturing' is steadily increasing (from 0.0 percent to 13.8 percent during the same period). Increased activity in the field of manufacturing reflects the much needed diversification in the economic structure. The share of tertiary sector also increased from 27.1 percent in 1955-56 to 34 percent in 1971-72.

### TABLE 3

**SECTORAL COMPOSITION OF STATE INCOME**

(from 1950-51 to 1971-72)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage Contribution from</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agricultural &amp; Allied Activities</td>
</tr>
<tr>
<td>1950-51</td>
<td>67.7</td>
</tr>
<tr>
<td>1955-56</td>
<td>64.1</td>
</tr>
<tr>
<td>1960-61</td>
<td>61.2</td>
</tr>
<tr>
<td>1965-66</td>
<td>60.6</td>
</tr>
<tr>
<td>1970-71</td>
<td>52.9</td>
</tr>
<tr>
<td>1971-72</td>
<td>52.2</td>
</tr>
</tbody>
</table>

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Provisional


As far as the annual growth rate in the case of different sectors is concerned, Agriculture and Allied activities, Mining
and Manufacturing' and 'Other Services' as a whole increased at the rate of 2.1 percent, 6.5 percent and 4.3 percent per annum respectively over two decades of planning (1950-51 to 1970-71). This analysis further reveals that the growth rate of 'Mining and Manufacturing' sector was highest among other sectors.

The relative position of Madhya Pradesh as compared to other States in terms of per-capita income in the year 1971-72 is shown in Table 4.

### Table 4

**Per-Capita Incomes of Selected States in 1971-72**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>States</th>
<th>Per-Capita Income (at current Prices)</th>
<th>Position in the Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Punjab</td>
<td>1054</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Gujarat</td>
<td>833 P</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Maharashtra</td>
<td>831 P</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Tamil Nadu</td>
<td>688 P</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Andhra Pradesh</td>
<td>602 P</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>Uttar Pradesh</td>
<td>591 P</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>West Bengal</td>
<td>585 P</td>
<td>7</td>
</tr>
<tr>
<td>8.</td>
<td>Kerala</td>
<td>579 P</td>
<td>8</td>
</tr>
<tr>
<td>9.</td>
<td>Karnataka</td>
<td>540 Q</td>
<td>9</td>
</tr>
<tr>
<td>10.</td>
<td>Assam (reorganised)</td>
<td>535 q</td>
<td>10</td>
</tr>
<tr>
<td>11.</td>
<td>Madhya Pradesh</td>
<td>528</td>
<td>11</td>
</tr>
<tr>
<td>12.</td>
<td>Indian Union</td>
<td>661</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Serial No. 1 to 11 State Statistical Bureaux and Serial No. 12 central Statistical Organisation.*

P = Provisional/Preliminary.

q = Quick.
Table 4 shows that the per-capita income in Madhya Pradesh occupied as low as 11th position in comparison with other States of the country. It was only about 50 percent of Punjab and 63.4 percent of Gujarat. Further it was only around 77 percent of the average income for the first ten States of the country.

Also, there is a great disparity between the annual income in Madhya Pradesh and other States.

The above account shows the level of per-capita income in the State and gives an insight into the changing structure of State's economy. Nevertheless, the State is still behind other States in the matter of per-capita income which indicates the backwardness of the State. But it is not the only criterion for judging the poverty or prosperity of a State. The per capita expenditure and the consumption pattern of the people should also be examined.

CONSUMPTION AND LIVING STANDARD

From the latest data based on the State sample of the National Sample Survey, 25th round (1970-71) regarding per-capita monthly consumer expenditure in rural and urban areas it appears that the average per-capita monthly expenditure was only Rs. 33.21 against Rs. 37.6 at 1970-71 prices considered by the planning commission as the desirable minimum per-capita consumption per month. It was slightly more (Rs. 44.39) for urban areas and

17. While as per data collected during the 4th round (1952) of the NSS, it was in old Madhya Pradesh and Madhya Bharat respectively Rs. 16.03 and Rs. 21.05 as against Rs. 22.11 in all India—NCAER: 'Techno-Economic Survey' of Madhya Pradesh, Asia, Bombay, 1960, P.11
some what lower (Rs. 31.41) for rural areas. Thus the per
capita monthly expenditure in urban areas was higher by 41.3
percent as compared to that in the rural areas. About 70
percent of the population spent between Rs. 13.99 and Rs.
35.33 per capita per month (72.84 percent in the rural areas).
The upper 20 percent segment of the population had a per capita
monthly expenditure of Rs. 70.19 which highlights the existing
disparities in the consumption levels.

18. Per capita consumer expenditure (1970-71) based on the
state sample of the NSS.

<table>
<thead>
<tr>
<th>Fractile Group</th>
<th>Rural</th>
<th>Urban</th>
<th>Rural Urban Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>13.72</td>
<td>17.74</td>
<td>13.99</td>
</tr>
<tr>
<td>10-20</td>
<td>17.65</td>
<td>24.15</td>
<td>19.14</td>
</tr>
<tr>
<td>20-30</td>
<td>20.74</td>
<td>28.70</td>
<td>21.37</td>
</tr>
<tr>
<td>30-40</td>
<td>23.02</td>
<td>33.03</td>
<td>23.85</td>
</tr>
<tr>
<td>40-50</td>
<td>25.78</td>
<td>37.65</td>
<td>27.04</td>
</tr>
<tr>
<td>50-60</td>
<td>29.01</td>
<td>43.67</td>
<td>30.66</td>
</tr>
<tr>
<td>60-70</td>
<td>33.42</td>
<td>51.08</td>
<td>35.33</td>
</tr>
<tr>
<td>70-80</td>
<td>39.54</td>
<td>63.72</td>
<td>41.41</td>
</tr>
<tr>
<td>80-90</td>
<td>47.63</td>
<td>81.53</td>
<td>52.78</td>
</tr>
<tr>
<td>90-100</td>
<td>80.50</td>
<td>148.74</td>
<td>92.68</td>
</tr>
</tbody>
</table>

|               | 31.41  | 44.39 | 33.21                |

Source: Draft Fifth Five Year Plan, 1974-79, Volume 1 (a),
Department of Planning, Economics and Statistics,
Madhya Pradesh P. 25

19. Figure has been calculated.
In urban areas, about 54.9 percent of the urban population did not have the desirable minimum consumer expenditure and accounted for only around 32.9 percent of the total urban consumer expenditure. The upper 20 percent had a per capita monthly expenditure of Rs. 109.55.

In the rural areas of the state, about 80 percent of the population use in the per capita monthly expenditure range of Rs. 13.72 to Rs. 35.54. As against this, the per capita monthly expenditure in the top 20 percent of the population was Rs. 62.79. Thus, 77.7 percent of the rural population below the desirable minimum expenditure accounts for about 59 percent of the total rural consumer expenditure. These figures indicate the low levels of consumption in the state. About 74.20 percent of the state’s population lives in conditions below the poverty line. From this analysis a conclusion can, therefore, reasonably be derived that the per capita consumer expenditure in this state is appreciably lower than that of the country which further shows the poor living conditions of the people.

The bulk of expenditure in rural and urban areas is on food items like cereals and pulses. As is evident from Table 3 average per capita monthly consumer expenditure on food in rural and urban areas from July 1970 to June 1971 in the state was 72.2 percent and 63.4 percent respectively while the corresponding figures in India were 73 percent and 64.4 percent respectively. Thus the state’s averages are slightly less than India’s.

20. According to data of the NSS for 1974, this figure reduced to 54 percent.
TABLE 5

AVERAGE PER CAPITA MONTHLY CONSUMER EXPENDITURE
(JULY 1970 TO JUNE 1971) (in Rs.)

<table>
<thead>
<tr>
<th></th>
<th>Rural Consumer Expenditure per capite for period of 30 days on</th>
<th>Urban Consumer Expenditure per capite for period of 30 days on</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Food</td>
<td>Non-food</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(72.2)</td>
<td>(27.73)</td>
<td>(100)</td>
</tr>
<tr>
<td>All India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(73)</td>
<td>(27)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

Figures in bracket are in percent and have been calculated.
Source: Records & Statistics Feb, 1976, p. 114

So far certain forces of economic development of the State have been examined. Accordingly, socio-demographic factors have been analyzed. But these factors have relation with natural resources. They are most important factors of economic development. Natural resources and economic development are inter-related. They determine the extent and pace of economic development. Though their adequacy or inadequacy can not be taken as cause of prosperity or poverty, their economic accessibility vitally affects the economic development. Now a study of the natural resources and their economic exploitation in the State leading to development will be studied.
NATURAL RESOURCES

Madhya Pradesh is Nature's paradise. It has rich and varied natural resources, such as fertile soil, minerals and forest resources, perennial rivers and lakes, wide and varied flora and fauna and vast stretches of rich green fields. These resources are unique. They provide inexhaustible flow of raw materials for industries. These resources have not yet been exploited to the desired extent and whatever is exploited is mostly sent out in the primary form to other parts of the country. Yet industrial activity has been very slow and confined to a few pockets. However, an immense potential for the development of an inviable complex of industries is there.

AGRICULTURAL RESOURCES

Agriculture is one of the most important natural resources of the State. It supplies raw materials for some of the major industries of the State, such as cotton textiles, sugar, oilseeds etc. It provides employment to about 79 percent of the economically active population of the State. It contributes about 57.3 percent (at current prices) and 42.4 percent (at constant 1960-61 prices) to its net domestic product. Thus Madhya Pradesh is predominantly an agricultural State.

According to village papers, the State is stretched over the area of about 4.42 Crores hectares of which 207.4 lakhs hectares, constituting nearly 46.9 percent of the total area of the State were under cultivation in 1972-73. It further constitutes 12.78 percent of the total cropped area of the country. Table 6 gives details of land utilization in Madhya Pradesh.  

21 Madhya Pradesh Varshiki, 1974-75 P.199
Table 6

<table>
<thead>
<tr>
<th>Land Utilization in Madhya Pradesh and in India (1972 - 73)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madhya Pradesh</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Area in lakh hectares</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Total reporting area for land utilization</td>
</tr>
<tr>
<td>1. Forests</td>
</tr>
<tr>
<td>2. Area not available for cultivation</td>
</tr>
<tr>
<td>3. Other uncultivated land excluding fallow land</td>
</tr>
<tr>
<td>4. Fallow land</td>
</tr>
<tr>
<td>5. Net area sown</td>
</tr>
<tr>
<td>6. Area sown more than once</td>
</tr>
<tr>
<td>Gross cropped area</td>
</tr>
</tbody>
</table>

Figures of columns 2 and 4 have been calculated
Source: (1) Figures relating to Madhya Pradesh compiled from Pocket Compendium of Madhya Pradesh Statistics, 1975 PP 204-5
(II) Figures relating to India taken from India, 1976, P. 178 and relate to 1971-72.

The most outstanding feature of agriculture in Madhya Pradesh and in India for 1972-73.
Pradesh is its low productivity. In 1973-74, the State produced 1.03 Crore tons from 1.75 Crore hectares of cropped area. This was only about 0.6 ton per hectare as compared with the all-India average of 0.9 ton. But per capita agricultural production was higher than in all-India (0.25 ton as against 0.21 ton) in 1973-74. It was due partly to good seasons and partly to increased area and to higher yields. Similarly, the total cropped area per head in the same year was also larger in Madhya Pradesh than in all-India (0.6 hectares as against 0.3 hectares.) A comparative study of the present condition of agricultural productivity in the State with that of 1950-51 shows that the production per acre (Rs. 71 per acre against Rs. 152) and per head (Rs. 103 as against Rs. 134) was lower than in all-India, despite a larger cultivated area per head (1.39 acres as against 0.62 acre). Thus it reveals that the production per acre/hectare has been or is still lower in the State, though the production per head has, no doubt, increased. The low yield per hectare as compared with the all-India average is due to many factors -

22. Figures have been calculated both for Madhya Pradesh and India on the basis of data for area and production of 7 major crops, viz., rice, wheat, jowar, pulses, sugar, oilseeds and cotton, for 1973-74.

23. Figures have been calculated both for Madhya Pradesh and India on the basis of production of 7 major crops mentioned as above and population as per 1971 census.

24. Figures for Madhya Pradesh and India have been calculated on the basis of total cropped area in 1973-74 and population as per 1971 census.

(1) Poor soil. Most of the soils of the Central India are shallow, full of hard rock and lack nitrogen, phosphorous, potassium and organic matters.

(2) Several thousand hectares of land is badly affected by dreadful soil-erosion.

(3) Inadequate irrigational facilities. In Madhya Pradesh the irrigated area is very meagre. Only 9.3 percent of the cropped area in the state is irrigated as against the all-India average of 23 percent. Thus about 91 percent agriculture of the State depends upon Monsoons. The distribution of rainfall is also uneven all over the State, therefore, it necessitates the development of irrigation facilities in the State.

(4) Large number of drought animals of inferior breed.

(5) Scarcity of labour and low work capacity.

(6) Input of chemical fertilizers is relatively little (only 2.62 kgs per hectare as compared with 10.74 kgs per hectare for all-India). There is also little use of green manure.

(7) Relatively little use of improved seeds.

(8) Markets are located at distant places. Therefore, transportation of products becomes difficult and expensive.

26. Figures taken from Madhya Pradesh year Book, 1974-75 Bhopal P.217
It is also one of the greatest handicaps of the farmers. The State has fewer towns, fewer miles of railways,²⁹ fewer miles of roads per square km. than most other states. There are really no roads at all in large tracts of Madhya Pradesh.³¹

(9) Techniques of cultivation, by and large, remain traditional.

AREA AND PRODUCTION

Madhya Pradesh is the second largest producer of food in the country, because of relatively larger area being under the plough—about 12.6 percent of the total cropped area of the country. In 1972-73, of the total cropped area, 41.8 percent was under single crops as against 45.6 percent in all India and 8.1 percent area sown more than once as against 8.0 percent in all-India. The major food crops of the State are rice, wheat, jowar and gram and the commercial crops being sugar cane, oilseeds and cotton.

The crop-pattern in the State shows a balanced distribution of crops. There are three important crop tracts in the State. Rice is grown in the east, cotton (with jowar) in the west and wheat and millet in the Central districts.³²

The Index of agricultural production (agriculture year 1956-57 = 100) has moved up to 110.0 in 1973-74 from 79.6 in 1965-66 but it came down 106.1 in the year 1974-75.³³

²⁹. 12.9 Kms per thousand Sq.Kms.
³⁰. 8.97 Kms per hundred Sq.Kms.
³¹. Ibid, P.14 op.cit.
³². Ibid, P.16 op.cit.
There has also been a marked increase in the average yield per hectare of major crops in the State during the last twenty two years 1950-51 and 1973-74. The yield of rice per hectare rose from 348 Kgs in 1950-51 to 649 (more than two-fold) in 1973-74 as against all-India average of 115 Kgs per hectare; wheat from 496 Kgs to 809 Kgs (163 percent) as against all-India average of 172 Kgs; jowar from 290 Kgs to 581 Kgs (a little less than two-fold); gram from 576 Kgs in 1950-51 to 618 Kgs in 1972-73 as compared with all-India average of 636 Kgs in 1971-72. The yield per hectare for groundnut, cotton and sugarcane have also moved up from 526 Kgs, 307 Kgs and 2706 Kgs in 1950-51 to 661 Kgs, 357 Kgs, and 3022 Kgs respectively in 1974-75 as against all-India average of 696 Kgs, 159 Kgs and 5120 Kgs respectively in the same years. (Table 7) This increase in yield per hectare appears to be due to a package of agricultural development programme of Government, use of better seeds, more fertilizers, better cultivation methods and increased irrigation facilities.

Thus the above study reveals that agricultural output in Madhya Pradesh as compared with that in India has doubtlessly stepped up but yields per hectare for major crops (except cotton) in the State are still relatively lower than the all-India averages. Hence, rapid increase in agricultural production and productivity is urgently needed. High yield per hectare depends upon many factors like better climate, irrigation, fertilizers and seeds etc. Though a better climate can not yet be ensured but human efforts to win greater returns from the soil can be greatly extended.  

### TABLE 7

**AVERAGE YIELD OF MAJOR CROPS IN MADHYA PRADESH**

AND IN INDIA DURING 1960-61 AND 1973-74

(in kgs. per hectare)

<table>
<thead>
<tr>
<th>Crop</th>
<th>Madhya Pradesh</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>348</td>
<td>849</td>
</tr>
<tr>
<td>Wheat</td>
<td>496</td>
<td>809</td>
</tr>
<tr>
<td>Gram</td>
<td>576</td>
<td>618 (1975)</td>
</tr>
<tr>
<td>Groundnut</td>
<td>526</td>
<td>661 (1975)</td>
</tr>
<tr>
<td>Cotton</td>
<td>307</td>
<td>357 (1975)</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>2706</td>
<td>3022 (1976)</td>
</tr>
</tbody>
</table>


(ii) Figures relating to India compiled from Records and Statistics, February, 1976 and Indian Agriculture in Brief, 1973
human efforts in the field of expansion of cultivated area, irrigation, seeds, fertilizers, soil conservation, crop pattern livestock etc. are sufficient to increase the production and productivity of land in the State. The Fifth plan of the State aims at bringing 23 percent of the net cultivated area of the State under irrigation. A minimum of 7 percent of net cultivable area would be provided in each development block. This would be instrumental in the reduction of regional imbalances to some extent. In view of the fact that flow irrigation does not ensure adequate intensity in cropping, due stress is being laid on providing irrigation through ground water development and wells. The increase in intensity in cropping will not only raise production and productivity of land but also alleviate rural poverty amongst the marginal and small farmers and the landless labourers through generation of larger employment.

MINERAL RESOURCES

Endowed with rich and extensive deposits of industrially important minerals, Madhya Pradesh occupies a significant place in the mineral map of India and contributes about 16 percent of the total value of mineral production in the country next to Bihar. Most intensively worked major minerals in the State include iron ore, manganese ore, coal, limestone,

35. Draft Fifth Five Year Plan-1974-79 Vol.1 (b) Govt. of Madhya Pradesh, Department of Planning, Economics and Statistics, Madhya Pradesh, P.747

36. The Times of India Directory and Year Book, 1976, P.18
dolomite, bauxite, diamond, fireclay, ochre, soap stone etc.
The Panna mines of the State are the sole producer (100 percent of the diamond production of India) of diamond in the country. Other minerals like corundum, sillimanite, silicates and fluorite, felspar, lopidolite, vermiculite, asbestos and mica are also found and exploited. However nearly 33 minerals are currently being exploited from more than 600 mines. The following Chief minerals are found in the districts mentioned against them.37

(Map 2)

<table>
<thead>
<tr>
<th>No.</th>
<th>Mineral</th>
<th>Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Coal</td>
<td>Chhindwara, Bilaspur, Korba, Raigarh, Sarguja, Shahdol and Sidhi.</td>
</tr>
<tr>
<td>2.</td>
<td>Iron ore</td>
<td>Durg, Rajauri, Baster, Jabalpur, Gird, Mandsaur, Khargone, Chhatarpur, Sidhi.</td>
</tr>
<tr>
<td>7.</td>
<td>Fireclay and China clay</td>
<td>Shivpuri, Gwalior, Satna, Shahdol, Jabus, etc.</td>
</tr>
<tr>
<td>8.</td>
<td>Fluor spar</td>
<td>Chhindwara and Shahdol.</td>
</tr>
<tr>
<td>10.</td>
<td>Talc and Soap stone</td>
<td>Durg, Jabalpur and Shihabo.</td>
</tr>
</tbody>
</table>

The share of Madhya Pradesh's known reserves of important minerals in the country's reserves is also very significant.

37. 'Industrial Development in the States of India' edited by T.N. Kapoor, Sterling, Delhi, pp.229-30
MAP SHOWING MINERAL DISTRIBUTION OF M.P.

STATE BOUNDARY

DISTRICT BOUNDARY

DISTRICT PLACES

LITHONIGINE STONE

GRAPHITE

COAL

GALena

BARITE

FLUORITE

FLAX CLAY

KAOLIN

LIMESTONE

MICA

MANGANESE

MANGANESE ORE

CORUNDUM ORE

DIAMOND FIELDS

CARNEBONE

MAPP No. 2
It has 30 percent of the country's high grade iron ore deposits, 44 percent of bauxite deposits, 50 percent of manganese ore deposits, and 25 percent of coal deposits.

**Production of Minerals**

In mineral production, Madhya Pradesh occupied the second place in the country in 1973, accounting for production of the value of Rs. 88.43 Crores i.e. 16 percent of the total minerals produced in the country. A notable feature of the state contribution is the increasing rate of its share in the national production of minerals. The total value of her mineral production in 1961 was only 8 percent of the all-India output which rose to 10.8 percent in 1961, to 13.7 percent in 1970 and to 16 percent in 1973. Apart from it, the state's share in the national production of the principal minerals was also much higher—2.3 percent of the all-India output of Bauxite, 23.5 percent of Iron ore, 20 percent of manganese ore, 19 percent of coal. (Table 8). Among the minor minerals the Panna mines produced 100 percent of the diamond output of India, 45 percent of corundum, 50 percent dolomite, 13.2 percent fire clay, 19.8 percent lime stone and 39 percent Ochre are produced alone by this State.

Table 8 shows the production and value of important minerals in the State and in India in 1973 and indicates a rising trend in the production of almost all the major minerals except manganese and corundum during 1956 and 1973. The output

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30. Third Five Year Plan, Vol.1, Govt. of Madhya Pradesh, Planning and Development Department, P.101
39. The Times of India Directory and year Book, 1976, P. 19
40. Figures have been calculated.
<table>
<thead>
<tr>
<th>No.</th>
<th>Unit of Quantity</th>
<th>Production Value (Rs. '000)</th>
<th>Production Value (Rs. '000)</th>
<th>Production Value (Rs. '000)</th>
<th>Share of NP in India Production in 1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Coal</td>
<td>4905</td>
<td>79382</td>
<td>15065</td>
<td>561260</td>
</tr>
<tr>
<td>2.</td>
<td>Bauxite</td>
<td>18</td>
<td>146</td>
<td>243</td>
<td>6084</td>
</tr>
<tr>
<td>3.</td>
<td>Iron Ore (a)</td>
<td>33</td>
<td>261</td>
<td>5209</td>
<td>130173</td>
</tr>
<tr>
<td>4.</td>
<td>Manganese Ore</td>
<td>418</td>
<td>46285</td>
<td>209</td>
<td>16612</td>
</tr>
<tr>
<td>5.</td>
<td>Carborundum</td>
<td>Metric Ton 344</td>
<td>195</td>
<td>120</td>
<td>42</td>
</tr>
<tr>
<td>6.</td>
<td>Diamond</td>
<td>Carat 1499</td>
<td>327</td>
<td>21427</td>
<td>16806</td>
</tr>
<tr>
<td>7.</td>
<td>Dolomite</td>
<td>Metric Ton 1585</td>
<td>6</td>
<td>524990</td>
<td>8255</td>
</tr>
<tr>
<td>8.</td>
<td>Fire Clay</td>
<td>Metric Ton 41314</td>
<td>330</td>
<td>92418</td>
<td>1028</td>
</tr>
<tr>
<td>9.</td>
<td>Lime Stone</td>
<td>'000 M.Ton 1082</td>
<td>3203</td>
<td>4827</td>
<td>68190</td>
</tr>
<tr>
<td>10.</td>
<td>Ochre</td>
<td>Metric Ton 9561</td>
<td>220</td>
<td>19002</td>
<td>650</td>
</tr>
<tr>
<td>11.</td>
<td>Quartz &amp; Silica</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>36330</td>
</tr>
<tr>
<td>12.</td>
<td>Steatite</td>
<td>--</td>
<td>92</td>
<td>6154</td>
<td>280</td>
</tr>
</tbody>
</table>

Note: (1) Figures of column 10 have been calculated. (ii) Figures of Ochre, Quartz and Silica and Steatite relating to India belong to 1971. (a) Iron Ore (Lumps and Flakes)

of iron ore and bauxite has increased substantially in 1973 as compared with 1956 figures. The coal output which increased more than two-fold during the last 17 years, showed a steady growth. The production of other minerals during these periods has also sharply increased; dolomite increased nearly by 32-times; diamond more than 13-times; lime stone more than three-fold and steatite more than two-fold. But the manganese output has declined sharply due to depression in manganese trade because of keen competition from other manganese producing countries and the cut back in the U.S. steel production in 1957. However, the share of fuels group in the value of mineral production was largest i.e. Rs. 56.13 Crores or 70 percent 41 in 1973, followed by metallic minerals Rs. 15.29 Crores or 19 percent. The table further shows that the share of the State in the country's mineral production is also much higher.

So far as the relative position of the State in different mineral production in the country is concerned, it occupied first place in the production of diamond, lime stone and bauxite, second place in iron ore, dolomite, fluorspar, corundum, diaspore and third place in coal, ochre etc. in 1974. 42

Thus it is apparent from the above study that the mineral development activities have steadily increased in the State. Yet, even in relation to the proven resources, the overall production of minerals is rather unsatisfactory. The fact

41. It has been calculated on the basis of total value of only 12 mineral production given in Table B

however, remains that there is a relatively fair base for increasing mineral production.

**EMPLOYMENT**

Various minerals are at present being exploited from more than 600 mines providing employment on an average to 93,634 persons (1973) per day and coal mines singularly providing employment on an average to 54,574 persons per day in the same year, mainly drawn from rural areas and Adivasi population. The value of mining activity in Madhya Pradesh is reflected in a sizeable increase in employment (44 percent) between 1951 and 1973.

**STATE REVENUE**

During the year 1974-75 the state earned an aggregate revenue of Rs. 6.24 Crores from minerals, of which 77 percent was from major minerals and 23 percent from minor minerals. It is hoped that by the end of the Fifth Plan period the revenue collections from mining sector might aggregate Rs. 9.25 Crores, mainly due to intensive exploitation of minerals.

**INDUSTRIAL UTILIZATION OF MINERALS**

In relation to the availability of mineral resources the growth of mineral-based-industries in the State would appear to be quite insignificant. If one leaves out the Bhilai Steel Plant, a few cement and refractory units, coal mining and the Aluminium plant at Korba, it could be said that hardly

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43. Draft Fifth Five Year Plan-1974-79, Vol. 1 (b) op. cit., p. 460
any worthwhile projects based on the state's abundant resources of minerals have come up. In the early phase the industrial utilization of minerals was mainly confined to non-metallic minerals like clay and lime-stone. Major share of the state's mineral output is being exported to other states, without any processing which shows lack of development of minerals and metal-based industries in the state and the immense scope of metal-based industries in the state.

One of the major reasons for the industrial backwardness of Madhya Pradesh as compared with other states of the country has been the failure to exploit the basic minerals available in the state. In the past two decades or so the National Mineral Development Corporation, the State Mining Corporation and the National Development Corporation have tried to evaluate and systematically map the occurrence and the possibilities of various minerals.

**FOREST RESOURCES**

Forests constitute one of the most important renewable natural resources. In a developing country like India, the importance of such resource is great because its economic growth depends greatly on agriculture and forest is not a mere hand-maid but an indispensable friend and a foster mother of agriculture. Forests have been accepted as essential to maintain and increase the productivity of agricultural lands.  

44. New forest policy, 1952.
Madhya Pradesh possesses largest area under forests as compared with other States in the country. Nearly two-fifth of the total area of the State is covered by forests (Map 3). Out of total land area of 4,43,000 Sq. Kms., forests occupy 1,68,132 Sq. Kms. Thus more than 39 percent of the area of the State is under forests compared with 19.8 percent in all-India. About 22 percent of the country's forest area is in Madhya Pradesh only. However, it is important to note that as compared with 1956 figure (1,72,460 Sq. Kms.), the total area of forests in the State has declined by 2.3 percent during 1973-74.

During 1973-74, of the total area of 1,68,132 Sq. Kms., 79,940 sq. Kms. were reserved forests, 66,048 sq. Kms. were protected and 1,344 sq. Kms. were unclosed forests.

Forest Area per thousand persons in Madhya Pradesh works out to 671.8 hectares as against the all-India average of 120 hectares and as compared with 60.7 hectares in Uttar Pradesh, 68.8 hectares in Madras and 149.7 hectares in Bombay.

Forests of Madhya Pradesh are not spread uniformly. Forests in Balaghat, Mandle, Shandol, Baster and other districts in the Eastern region of the State are densest and mostly unexplored, while extremely thin and practically non-existing in Ujjain and Shejapur districts. 47 percent of the total area of the Eastern Zone is under forests and 62 percent

45. See Table 14 (aerial No. 6)
46. Figure relates to 1973-74
47. India's percentage has been calculated on the basis of 1969-70 figures.
48. The Times of India Directory and Year Book, 1976, P.29
49. Third Five Year Plan (1961-1966), Vol.1 Govt. of Madhya Pradesh, P.80
of the forest area of the state is located here. Districts with very high forest density in this Zone are Baster (71.1 percent of total area), Surguja (51.8 percent), Bialeghat (47.8 percent, Mandla (44.1 percent), Sidhi (40.9 percent) and Shahdol (40.5 percent). The forests thin out westward; the Central and Southern districts have less than 15 percent of their total area under forests; while the forest area in the Northern and Western districts is only 11 percent of the land area. The districts with very little area under forests are Vidisha (0.1 percent), Bhind (0.4 percent), Indore (6.7 percent), Rajgarh (2.0 percent), Ratlam (6.9 percent), Shajapur (Nil), Ujjain (0.8 percent), Tikamgarh (1.3 percent) and Chhatarpur (4.2 percent). In these districts there is need of development of forests. Therefore stress should be laid on the plantation of quick-growing species of trees under the afforestation scheme.

**TYPES OF FORESTS**

From commercial point of view the valuable forests of the state are classified as teak, sal and mixed forests. During 1973-74, the area of these forests was as follows:

- Teak forests 31,190 Sq.Kms., Sal forests- 37,898 Sq.Kms.,

The Bori teak of Hashangabad is famous for its quality throughout India.

**SPECIES OF TREES AND OTHER FOREST PRODUCTS**

Important species found here are Teak, Sal, Bijsa,

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50. NCAER 'Techno-Economic Survey of Madhya Pradesh,' op.cit, p.39
51. The Times of India Directory and year Book, 1976, p.29
Saj, Haldu, Tineo, Shisham, Salai, and Samal for timber and Kordhoai, Khair, Salai, Bal, Tendu, Bamboo, Kusum, Palas for non-timber usage. Bamboo occurs as forest floor in most of the teak and Sal forests. According to a recent estimate made by the State forest department, large bamboo reserves are available in Bastar, Shahdol, Bilaspur, Salaghat and Hoshangabad districts.52 Teak is the most valuable timber in the Western forest belt and Sal in the Eastern belt. The bulk of the forest area, however, contains mixed type of growth where neither teak nor sal predominates. A variety of species is found in the Northern forest belt.

Besides, a great many other forest products are also found which provide raw materials for industries. Some of the important forest products are Timber, Bamboos, Sabai grass, Khat, and Cutch, Lac and Shells, Myrobalan, Tendu Leaves, Gum and Medicinal herbs.

**POTENTIAL**

The State's share in the total volume of wood producing forests is considerably less, since the density of most of the forests in the State is very low. The principal factors responsible for this State of affairs are indiscriminate cutting and grazing of cattle due to the exercise of 'Nistar rights' by local population, the practice of shifting cultivation by the tribals in certain areas and the absence of any planned cutting programmes. About 60 percent of the forests

are classified as productive. The forests are understocked to the extent of 40 percent on an average and account for the low yield. With 41 percent the country's area under task, the State produces only 11 percent of the country's requirements of task. Production of timber per hectares is 0.13 cubic metre which is far below the India average of 0.53 cubic metre.

**PRODUCTION**

Annual recorded production of industrial and fuelwood in Madhya Pradesh and in India during 1960-61 and 1967-68 to 1971-72 is indicated in Table 9. This table shows a rising trend in the individual production of industrial and fuelwood as well as in their total production until 1967-68. After that the production of these products and their total production has simultaneously declined steeply. The decrease in the total production has occurred due to reduction in the production of both timber and fuelwood, mainly because of ruthless exploitation in the past or excessive extraction of firewood by the local people in the State. During 1967-68, the total production recorded an increase of 53 percent as compared with those of 1960-61. But the total production of these products reduced in 1971-72 by 19.4 percent as compared with those of 1960-61 and by 45.7 percent as compared with 1967-68. The share of fuelwood in the total production was somewhat higher (70.7 percent) than that of industrial wood (29.3 percent) in 1960-61, but this proportion reversed in
### TABLE 9

**PRODUCTION OF INDUSTRIAL AND FUEL WOOD**

**IN MADHYA PRADESH AND IN INDIA**

<table>
<thead>
<tr>
<th>Year</th>
<th>Madhya Pradesh (Quantity in '000 cubic metres)</th>
<th>India (Quantity in '000 cubic metres in terms of product-round wood)</th>
<th>Share of M.P. in India's Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-61</td>
<td>1,163</td>
<td>2,923</td>
<td>17,007</td>
</tr>
<tr>
<td>1965-66</td>
<td>1,637</td>
<td>3,270</td>
<td>N.A.</td>
</tr>
<tr>
<td>1966-67</td>
<td>2,296</td>
<td>3,280</td>
<td>NA</td>
</tr>
<tr>
<td>1967-68</td>
<td>2,617</td>
<td>3,632</td>
<td>21,036</td>
</tr>
<tr>
<td>1968-69</td>
<td>2,108</td>
<td>3,382</td>
<td>21,033</td>
</tr>
<tr>
<td>1969-70</td>
<td>2,210</td>
<td>2,871</td>
<td>22,016</td>
</tr>
<tr>
<td>1970-71</td>
<td>1,502</td>
<td>1,665</td>
<td>NA</td>
</tr>
<tr>
<td>1971-72</td>
<td>1,914</td>
<td>1,476</td>
<td>NA</td>
</tr>
</tbody>
</table>

Figures of Column No. 5 have been calculated.

NA = Not Available

**Source:** Figures relating to Madhya Pradesh compiled from Pocket Compendium of Madhya Pradesh Statistics, 1975, p. 244 and figures relating to India compiled from INDIA, Ministry of Information and Broadcasting, Government of India, P. 220
1971-72 and it was 44 percent and 56 percent respectively. It thus clearly shows the decline in the production of fuel wood and increase in industrial wood. The table further reveals a decreasing rate of the State's share in the total national production after 1967-68. It increased from 24.1 percent in 1960-61 to 29.7 percent in 1967-68 but declined to 26.2 percent in 1968-69 and reduced further to 23.2 percent in 1969-70. Moreover, the position of the State seems to be more depressing.

The value of the output of minor forest products also increased from Rs. 2.05 Crores in 1960-61 to Rs. 14.23 Crores in 1973-74 — a record. Thus the value of these products which increased by nearly six-fold between 1960-61 and 1973-74, shows a tremendous growth in the minor forest products.

The State exports large quantities of fuel wood to other parts of India. It is estimated that 80,000 tons of charcoal is produced in the State of which nearly half is exported to the neighbouring States. During 1972-73, the exports of wood and timber were 39.54 lakh Quintals as against 23.48 lakh Quintals during 1960-61 — the increase in the exports of wood and timber is quite impressive in that it went up by 69 percent. Due to abundant production of Tendu leaves in Mahakoshal and Vindhyas regions, Bidi industry

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53. Pocket Compendium of Madhya Pradesh Statistics, 1975, P.245
54. Industrial Development in the States of India, edited by T.N. Kapoor, Stirling, Delhi, 1967, P.229
55. Pocket Compendium of Madhya Pradesh Statistics, 1975, P.311
in the State is well developed and flourishing. Hence, Madhya Pradesh is India's largest exporter of bidis and exports them mainly to Burma, Sri Lanka and Pakistan.\textsuperscript{56}

In the production of loc, Madhya Pradesh occupies second position in India.

**EMPLOYMENT**

A large number of persons are engaged in logging of timber and collection of various minor products. But no estimate relating employment in this sector is available. Generally, the labour is drawn almost from the population in the vicinity of forest areas usually. There is a preponderance of tribal population in such areas.

**STATE REVENUE**

As a result of the under-exploitation of the forest resources, forest contribution to the state income is on an average of about Rs. 8 per hectare. At the time of reorganisation of the State the net revenue earned by the forest department amounted to Rs. 6.14 Crores which increased to Rs. 38.39 Crores during 1973-74, recording an increase of more than 6-fold. In spite of so much increase in the state revenue received from this sector, the share of forestry and logging in the State's net domestic product is negligible. During 1973-74 its share in the NSDP was 4.9 percent at current prices and 6.4 percent at 1960-61 prices.

\textsuperscript{56} 'Industrial Development in the States of India' edited by T.N. Kapoor, op.cit., P.229
Thus it is evident from the above enquiry that the commercial exploitation of forests in the State of Madhya Pradesh has not been to a commendable extent. There exists a considerable scope (i) to expand production or to increase the productivity of the forests; (ii) to establish a linkage between the development of forests and forest based industries and (iii) to gear the development of forests for the benefit of backward forest areas and their large tribal population. The schemes regarding improvement of the existing forest area, rehabilitation of the depleted forests and survey and demarcation of the ex-proprietary forests are of prime importance.

Over a period of 24 years the State has made impressive strides in the exploitation of natural resources in a planned manner. Much gains have also been achieved in quantitative terms. Still the problem of poverty persists which shows economic backwardness of the State. But the economic position of the State can not be judged only with reference to the availability of natural resources and the extent to which they are exploited. Other factors like‘Infrastructure’ are also important factors of economic deve-lopment of a country or State. Now a study of the Infra-
structure will be made in regard to the economic progress of the State in the paragraphs that follow.

INFRA - STRUCTURE

As compared to other States in the country, Madhya Pradesh as a whole possesses the poorest infra-structure.
Perhaps no other single factor is so responsible for economic backwardness of this state as the inadequacy of infra-structure facilities. The Index of development of the infra-structure facilities (1969-70) compiled by 'Commerce' Research Bureau works out to 52.6 for the State taking the all-India figure as 100 and it ranks lowest among the Indian States. The major facets of infra-structure are described below:

THE TRANSPORT SYSTEM

Road Transport

At the time of reorganisation of the State (1956) the integrating units were not connected with each other due to lack of adequate links. The total length of roads was 26,173 Kms and the condition of road in most parts of the State was far from satisfactory. But during the post reorganisation period there has been a substantial increase in the total length of roads. In 1974 it was 47,080 Kms, and increased to 50,179 Kms in 1975. Thus over the two decades there has been an increase of 22,006 Kms. or 78.6 percent. A comparative position of the road development in the State according to types of road can be seen from Table 10.

In terms of area and population, the road length per 100 Sq.Kms. of area in the State was 10.63 Kms in 1974 as against 38 Kms for the country as a whole and 104.80 Kms for every one lakh of population as compared to 229 Kms in the country in 1974. The poor state of road transport can be gauged by the fact that the State had 78.74 Kms. of surfaced
### Table 10

**Road Length According to Type of Road Surface in Madhya Pradesh and in India (1956-75)**  
( in kilometres )

<table>
<thead>
<tr>
<th>Year</th>
<th>Surfacèd Roads</th>
<th>Unsurfaced Roads</th>
<th>Total</th>
<th>Surfacèd Roads</th>
<th>Unsurfaced Roads</th>
<th>Other Roads</th>
<th>Total Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>19,028</td>
<td>6,997</td>
<td>26,025</td>
<td>2,09,796</td>
<td>2,69,799</td>
<td>59,596</td>
<td>5,38,178</td>
</tr>
<tr>
<td>1961</td>
<td>22,048</td>
<td>9,202</td>
<td>32,050</td>
<td>2,62,746</td>
<td>2,58,359</td>
<td>2,04,059</td>
<td>7,25,173</td>
</tr>
<tr>
<td>1969P</td>
<td>26,622</td>
<td>9,983</td>
<td>36,605</td>
<td>3,68,784</td>
<td>2,96,000</td>
<td>4,88,000</td>
<td>11,70,729</td>
</tr>
<tr>
<td>1974P</td>
<td>34,822</td>
<td>12,175</td>
<td>47,060</td>
<td>4,30,000</td>
<td>3,20,000</td>
<td>5,04,000</td>
<td>12,54,000</td>
</tr>
<tr>
<td>1975</td>
<td>NA</td>
<td>NA</td>
<td>50,179</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Source:**
1. Figures relating to Madhya Pradesh compiled from Pocket Compendium of Madhya Pradesh, Statistics, 1974, P. 25% and 1975, P. 316 and 1975 figure from Madhya Pradesh Year Book, 1974-75 - Engineer-in-chief, PhD (D & R), Madhya Pradesh (original).


P = Provisional  
NA = Not Available
roads per 1000 Sq.Kms. of area as against the all-India average of 131 Kms. in 1974 (Table 10). The State had 2600 Kms. of national highways - 9 percent of India's national highways kilometerage and 44,500 Kms. of other roads in 1974. The national -al highways constituted about 5.5 percent of the total road length in the State which is rather low considering the area of Madhya Pradesh which forms about 14 percent of the country's area.

Considering the road length per 1000 Sq.Kms. and also per lakh of population, 22 of the 45 districts are very deficient in this regard. Some of the districts like Surguja, Bastar, Raigarh, Sachi and Shahdol have an average road length, if all-weather roads are taken as the criteria, still lower.

It is significant to note that at present only 10,000 out of the total about 70,000 villages in the State are within the range of 3.23 Kms. (two miles) from a road. Although Madhya Pradesh has a relatively large road kilometerage of National Highways, many parts of the State do not have any direct link with any National Highway for a distance of more than 500 Kms. in some places. The quality of the surfaced and unsurfaced roads in the State is still unsatisfactory. A large proportion of the roads has narrow width and inadequate facilities for two-way traffic. Overall deficiency in road development is particularly felt in the Eastern region - Bastar and Surguja districts, which are quite rich in minerals and forest resources; are very deficient in the road network.

In the Nagpur plan it was envisaged that this State
should have 35,853 Kms. of fair weather road by 1967 but this target has not yet been achieved. The Twenty-year Plan (1961-81) envisaged the road length of 1,15,677 Kms. by 1981,\(^{57}\) considering this target the road development in this State is inadequate and targets envisaged in the Nagpur Plan are not likely to be achieved in the near future.

**RAILWAYS**

The State is served by the Central, the South Eastern and the Western Railways. The Central serves chiefly the Gwalior, Bhopal, Indore and Rewa regions, South-Eastern serves Raipur, Raigarh, Katni, Bilsapur, Durg and Shahdol, while the Western traverses Ratlam, Mandsaur, Indore, Ujjain, Shajapur, Sehore, Dhaus, Guna, Phau and Nagda districts. The Central and South-Eastern Railways meet at Katni and the Western and Central Railways meet at Bhopal, Guna and Khindua.\(^{58}\)

**PROGRESS OF RAILWAYS**

By the end of March, 1975, the State had 5706.8 Kms. of railway route length comprising 40,71.2 Kms. of broad gauge 497.7 Kms. of metre gauge and 1137.9 Kms. of narrow gauge. Thus in 1975, it had 9.6 percent of India's railway route kilometerage (Table 11). The railway route length per thousand Sq. Kms. in Madhya Pradesh is worked out to 12.8 Kms. as against the all-India figure 18. It is, however, interesting to mention that the railway route length of the country as a whole increased from 55000 Kms. to 60,300 Kms. or by 9.45 percent during 1956 and 1975 while the route length in Madhya Pradesh increased

\(^{57}\) Draft Fifth Five-Year Plan (1974-79), P. 478  
\(^{58}\) NCAER Techno-Economic Survey of Madhya Pradesh, P. 120
by 17.3 percent, a little less two-fold of an all-India average (9.45) during the same period.

Table 11 shows the progress in the railway route length in Madhya Pradesh and in India during 1955 and 1975.

Out of 45 districts in the State, as many as 6 are not still covered by the railways; even a district like Bastar which is rich in mineral and forest resources has no rail link for the use of the general public. The newly constructed railway line from Kirandul to Vishakhapatna is only for the transport of iron ore from Bailadilla mines to Vishakhapatnam port for export.

The difference in gauges and the fact that the main arterial lines pass through only certain parts of the State, add to the State's rail transport difficulties. There is a large area within a parallelogram - (Bina-Katni; Katni-Menikpur; Manikpur-Jhansi and Jhansi-Bina lines) without any railway lines. Only now a branch line is under construction linking Mahoba (Jhansi-Manikpur line) with Khajuraho, because of the tourist attraction of Khajuraho. This large area of Bundelkhand is rich in minerals and forest wealth with a potential for industrial growth which can be accelerated if there is a dense network of railway lines.

The above account shows very poor level of land transport system in the State. One of the important factors responsible for this is the State's physical features viz.

69. 6 districts are Dhar, Penne, Rajgarh, Rewa, Sidhi and Bastar.
### Table 11

**Length of Railway Route in Madhya Pradesh and in India during 1956 and 1975**

(in kilometres)

<table>
<thead>
<tr>
<th>Year</th>
<th>Broad Guage</th>
<th>Narrow Guage</th>
<th>Total Guage</th>
<th>Variaton in %</th>
<th>Total</th>
<th>Variaton in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>3,294.4</td>
<td>427.2</td>
<td>4,864.0</td>
<td>55,011</td>
<td>60,301</td>
<td>9.45</td>
</tr>
<tr>
<td>1975</td>
<td>4,071.2</td>
<td>497.7</td>
<td>5,768.8</td>
<td>17.3</td>
<td>60,301</td>
<td>9.45</td>
</tr>
</tbody>
</table>

Figures of columns 6 and 8 have been calculated.

**Source:** Figures relating to 1956 of Madhya Pradesh compiled from Madhya Pradesh Ke Arthik Vikas' by Dr. V.S. Rao and N.S. Kondawar, Madhya Pradesh Hindi Granth Academy, Bhopal, 1972, p. 339 and figures of 1975 compiled from Pocket Compendium of Madhya Pradesh Statistics, 1975, p. 317

forest regions and numerous small and big rivers hindering an efficient transport system. During rainy season, most of the rural areas are virtually cut off from the rest of the State as bridges are few and far between. This is the reason that vast State resources have remained almost unutilized. It is therefore, essential to increase road kilometerage and have a proportionately larger railway kilometerage in the State for harnessing its vast economic potential. Massive investments are thus required to bring the road and railway facilities even to the present all-India levels. A planned extension of railway routes to take advantage of the potential for bulk traffic in mineral rich areas and a co-ordinated programme of road development would appear to be the immediate needs.

**POWER**

Generation and supply of power hold the key to the future development of Madhya Pradesh. The vast mineral resources of the State will remain untapped and hardly any industrial development will be possible unless cheap electric power becomes available in the required quantity. Accordingly the State Government has given highest priority to the generation and supply of power in development plans in order to develop the vast mineral resources and the great industrial potential of the State.

**INSTALLED CAPACITY**

Prior to the reorganization of the State, the development of power was very deplorable. In 1951 the installed power capacity of the State was merely 39 MW, accounted for
about 2.1 percent of the country's total power potential, which increased to 82.3 MW at the time of reorganisation—an increase of 111 percent in five years. But during the post-reorganisation period, there has been a speedy development in the power capacity of the State. It increased even faster than the country's power capacity. It is evident from the fact that in 1975 it rose to 776 MW, it increased by more than nine-fold during 1956 and 1975, while it was only seven-fold in the country as a whole during the same period. If we further analyse it, we find that as compared to the all-India power capacity of 21,220 MW, the State's power capacity in 1975 was only 3.9 percent which seems to be very scarce. It is important to mention that of the total installed capacity of 776 MW in the State, about 74.7 percent was thermal and 25.3 percent hydro electric power. This clearly shows that the share of thermal power is the highest in the power potential of the State. There are two reasons: firstly, availability of coal in numerous quantity and secondly, up to the end of 1960, there were no hydro-electric stations in Madhya Pradesh. But during the year 1960-61, the first hydro-electric station (Gandhi Sagar power station) having total capacity of 115 MW was commissioned. Thereafter, the Ranapratap Sagar (1967-68) and Jawahar Sagar (1972-73) hydro-electric stations were commissioned. The Ranch station is expected to be commissioned in the year 1978-79.

**GENERATION**

The power demand and supply in the State started
### Table Xe

**Development of Power in Madhya Pradesh and in India**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Generation capacity (in MW)</strong></td>
<td>39</td>
<td>92.3</td>
<td>776</td>
<td>9.4 times 21220</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>2. Power Generation (in million Kwh)</strong></td>
<td>76</td>
<td>169.4</td>
<td>3620</td>
<td>21.4 times 71050(a)</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>3. Places electrified</strong></td>
<td>—</td>
<td>102</td>
<td>11523 F</td>
<td>81.1 times —</td>
<td>—</td>
</tr>
<tr>
<td><strong>4. Irrigation Pumps/Tubewells energised (in Hundreds)</strong></td>
<td>—</td>
<td>265</td>
<td>136304 (a)</td>
<td>521.5 times —</td>
<td>—</td>
</tr>
<tr>
<td><strong>5. Electricity Consumers (in lakhs)</strong></td>
<td>—</td>
<td>51306</td>
<td>946529</td>
<td>16.4 times —</td>
<td>—</td>
</tr>
<tr>
<td><strong>6. Power Consumption (in Million Kwh)</strong></td>
<td>—</td>
<td>154.04</td>
<td>2781.4</td>
<td>18 times —</td>
<td>—</td>
</tr>
<tr>
<td><strong>7. Per capita consumption (c)</strong></td>
<td>—</td>
<td>5.9</td>
<td>66.7</td>
<td>11.3 times 56.6 (b)</td>
<td>—</td>
</tr>
</tbody>
</table>

Figures of columns 6 and 8 have been calculated

<table>
<thead>
<tr>
<th>F</th>
<th>Provisional</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>Figure relates to 1974</td>
</tr>
<tr>
<td>(b)</td>
<td>Figure relates to 1973</td>
</tr>
<tr>
<td>(c)</td>
<td>Per capita consumption figures have been calculated</td>
</tr>
</tbody>
</table>

**Source**


(3) Figures for 1975 relating to India compiled from The Times of India, Directory & Year Book 1976, P. 43
 TABLE 18
PATTERN OF POWER CONSUMPTION BY TYPE OF USE IN MADHYA PRADHESH (1974-75)

(in million Kwh)

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Type of use</th>
<th>% of the total consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Domestic Light and Power</td>
<td>6.2</td>
</tr>
<tr>
<td>2.</td>
<td>Commercial Power</td>
<td>5.2</td>
</tr>
<tr>
<td>3.</td>
<td>Industrial Power</td>
<td>76.6</td>
</tr>
<tr>
<td>4.</td>
<td>Public Lighting</td>
<td>0.9</td>
</tr>
<tr>
<td>5.</td>
<td>Irrigation</td>
<td>5.9</td>
</tr>
<tr>
<td>6.</td>
<td>Public Works</td>
<td>2.6</td>
</tr>
<tr>
<td>7.</td>
<td>Others</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Pocket compendium of Madhya Pradesh, 1975 P. 248
increasing...leaps and bounds after 1956 i.e., the reorganisation of the Madhya Pradesh State, as will be evident from Table 12.

This table shows an extremely favourable position of the state, it has increased considerably and stood at 3,620 million kwh in 1974-75, more than 21 times increase in 19 years, but it was only 3.8 percent of the all-India generation in 1973-74. The table further shows that there has been a considerable increase in the percapita consumption of electricity over the 19 years period under study. In 1975 the percapita power consumption at 66.7 kwh is 11.3 times greater than that of 1956 (5.9kwh). From the table it is also clear that during the recent past, much emphasis has been placed on rural electrification and energisation of irrigation pumps and tubewells. At the end of 1973-74, of the 76,914 villages in the state about 10,703 villages (13.6 percent) were electrified.

So far as the pattern of power consumption in the State is concerned, the bulk of power (75.6 percent) is consumed by the industrial sector while domestic consumption accounts for only 6.2 percent. Table 13 gives the pattern of electricity consumption by the type of uses in the State during 1974-75.

**DISTRIBUTION SYSTEM**

The length of extra-high tension lines and sub-transmission line i.e., 33/11 KV lines has also increased from 4,553 kms and 16,698 kms in 1966 to 5,168 kms or 13.3 percent
and 33,167 km or about 200 percent in 1972 respectively.

The above study shows that apart from a tremendous development in the installed power capacity as well as generation of power in the state during 1956 and 1975, the per-capita consumption of power is still very low as compared to the all India average. The State is far behind other States in power generation and consumption. Thus, it clearly indicates the economic backwardness of the State. Therefore, the development of power potential in the State is required to be tackled on a priority basis. In the words of Shri S.C. Shukla the former chief Minister of Madhya Pradesh, 'A backward State like Madhya Pradesh should develop its power potential as part of its resource mobilization effort'.

The State proposed to increase the installed capacity to 1,532 MW by the end of the Fifth Plan and to raise it further to 2,600 MW in the first three years of the Sixth Plan.

Under rural electrification programmes 11,022 villages have been electrified, while 1,025 villages are to be electrified soon.

**COMPARATIVE ECONOMIC POSITION OF MADHYA PRADESH IN RELATION TO OTHER STATES**

Table 14 shows the comparative economic position of Madhya Pradesh in relation to other States in terms of important economic indicators, such as population, per-capita income, average yield of principal crops, area of forests,

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60. The Times of India, New Delhi, September 9, 1976, P.5
61. Ibid, P.5
mineral production etc. It indicates that Madhya Pradesh is far behind, in some spheres, certain advanced States of the country. In spite of having a very important place in mineral production and forest resources even amongst advanced States, the per-capite outlay, income (at constant prices), consumption of power, average yield of principal crops per hectare, length of surfaced roads per 1000 sq. km, and literacy etc, are lower than those of advanced States and even than the national average.

Thus a study of important economic factors which generally affect the economic development of any country/State shows that Madhya Pradesh could not keep pace with the development of the country appreciably. Madhya Pradesh is still an under developed State in terms of (i) per-capite income; (ii) per-capite income from industry and mining; (iii) number of workers in registered factories; (iv) per-capite annual consumption of electricity; (v) length of surfaced roads in relation to population and the area of the State and (vi) railway kilometerage in relation to population and the area of the State. 62

**NEED OF RAPID INDUSTRIALISATION OF THE STATE**

The question arises as to why the State is under-developed, in spite of vast and varied mineral and forest resources which provide industrial potential. The answer lies 62.

62. "These criteria have been laid down by the Pandey Committee appointed by the Planning Commission for identification of industrially backward States." See Sivayya and Das, "Indian Industrial Economy," S. Chand, Nau Delhi, 1975, P. 183
in the low level of industrial development. In the words of Gyorgy Cukor, 'Economic backwardness is accompanied by a low level of industrial development, just as it is also accompanied by poor diet and a low cultural level.' Thus industrialization is the central problem of economic development of the State because it is closely related with economic development as a whole and within that with the growth of other branches of the economy particularly of agriculture. 'Industrialization is one of the major tools with the aid of which the vicious circle of backwardness and poverty can be broken'. In fact, 'the essence of economic development of the State consists essentially in the growth of industrialization.' Pt. Jawahar Lal Nehru once remarked, 'Real progress must ultimately depend on industrialization.'

The importance of industrialization was also stressed in the Second Five Year Plan and this confirms the view that 'rapid industrialization and diversification of the economy is the core of development. Development involves a transfer of part of the working force from agriculture to secondary and tertiary activities.' Hence industrialization has been regarded as a panacea for all the social and economic evils. Thus the most urgent need of the State is its rapid

64. Ibid, P. 9
industrialisation, but more important is the decentralisation of industries through diversion of industries to those areas in the State where industrialisation has not taken place or which are called backward areas. The Industrial policy Resolution of 1956 emphasized that through a balanced and co-ordinated development of both industrial and agricultural sectors in each region only, India can reach a higher living standard.66

Before analyzing the problem of industrialisation in Madhya Pradesh, it would be worthwhile to make a brief survey of industrial development in the State since the beginning of planned development in the country.

PRESENT INDUSTRIAL PICTURE OF MADHYA PRADESH

By the end of the first five year plan, the industrial activities in Madhya Pradesh were very slow due to lack of industrial climate and inadequate economic 'Overhead' facilities. At the end of this Plan there were only 70 large and medium industries in the State, out of which only 3 units67 were in the public sector. Industries were less diversified. The predominance use of consumer goods industries like textile, sugar, oil, rice, jute industries, metal based and chemical industries were in a rudimentary stage. Moreover, the industrial development was very limited and confined. The situation of Madhya Pradesh was marred by the scarcity of industrial projects and the only silver

67. These units were Gun carriage Factory, Ordnance Factory and Post and Telegraph work shop at Jabalpur.
lining in the sky of industrialisation was the small scale industries which had gathered some momentum and the state was famous for their products.

It was only after the reorganisation of the State or with the commencement of the Second Plan that developmental work in the real sense started to all intents and purposes. However, the actual growth of industries in Madhya Pradesh begins, when the Bhilai Steel Plant of Bhilai and Heavy Electricals Ltd. at Shhopal were established in the public sector. They created a sizeable increase in employment opportunities in metal and machinery industries. About 1,12,000 persons got employment in these projects. They proved a a boon to the State towards creating environment and accelerating the pace of industrialisation. Thereafter, a few engineering and heavy chemical industries were also setup. It is thus that the whole idea of industrialisation has significantly changed. Now the State is poised for industrial development.

Due to physiographic and historical reasons, more than 79 percent large and medium scale units at the end of March, 1973 and more than 84 percent of the employment provided by these units in the same year in the State are concentrated in the 12 districts viz. Indore, Ujjain, Jabalpur, Surguja, Shahdol, Shhopal, Gwalior, Chhindwara, Durg, Bilaspur, Raipur and Ratlam. Out of the remaining 33 districts of the State 18 have no industrial units at all, while the rest of the State has just remained more or less industrially undeveloped.
By the end of March, 1974, there were 151 large and medium industries, with an investment of Rs. 710.71 Crores and providing employment to 1.98 lakh persons of this, the public sector units, numbering 27 (1973-74) alone accounted for about Rs. 537.03 Crores as capital investment and 79,788 as employment generated. Prominent among these are the Birla Ispat Ltd., Chililai, Heavy Electricals (India) Ltd., Chopal, Deiladilla Iron Ore Project, Bharat Aluminiun Company, Korba and the National Coal Development Corporation.

So far as working factories are concerned, at the end of 1974 there were 3,949 working factories, employing daily on an average about 2.92 lakhs workers while the corresponding figures in 1957 were only 1,743 and 1.55 lakhs. Thus in the span of 17 years the number of and average daily employment in working factories increased by 126.5 percent and 88.3 percent respectively, chiefly because of the establishment of more factories.

The industrial structure has also not been greatly diversified during 1957-74. The percentage share of agro-based industries in the industrial pattern of the state has gone up to 78 percent in 1974 from 77 percent in 1957. This indicates a rising trend in such types of industries, while non-agro-based industries like engineering, chemicals, petro-chemicals etc. have not shown much rising trend. However, the consumer goods industries like textiles, processing etc. claim substantial share in the total factories and employment.

68. Figures compiled from Industrial Statistics, 1973, Directorate of Industries, Govt. of Madhya Pradesh, PP. 2, 48, 49
**TABLE 15**

**PLAN EXPENDITURE AND SHARE OF**

**INDUSTRY AND MINING**

(Re. In lakh)

<table>
<thead>
<tr>
<th>No.</th>
<th>Second Plan</th>
<th>Third Plan</th>
<th>Three Annual Plans</th>
<th>Fourth Plan (Estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total Plan Expenditure</td>
<td>14,892.00</td>
<td>28,670.00</td>
<td>16,574.00</td>
</tr>
<tr>
<td>2.</td>
<td>Share of Industry and Mining</td>
<td>389.00</td>
<td>835.30</td>
<td>517.00</td>
</tr>
<tr>
<td>3.</td>
<td>Percentage of (2) to (1)</td>
<td>2.6</td>
<td>2.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Figures of Serial No. 3 have been calculated.

*Source: Fifth Plan Document- Madhya Pradesh State.*
generated in the State in 1974.

As compared with the all-India picture, industrial occupations have been relatively less important in this State both as a means of employment and as a source of output. In 1965, the value of output of manufacturing industries was nearly 2.9 percent of the total value of output of the country. The small scale and cottage establishments are more prominent in Madhya Pradesh. In 1972, the number of 551 units registered with the Directorate of Industries was 7.3 percent of all-India figure; they accounted for 10 percent of the fixed investment; 4.9 percent of the total employment; 1.16 percent of the gross output and 1.06 percent of the value added.

In 1973-74, the contribution of industrial sector to the State income was 17.4 percent (at 1960-61 prices), while the corresponding figure for all-India was much lower—14 percent. Of this, the factory establishments contributed about 5.6 percent and the rest being attributable to non-factory establishments. But for Bhilai Steel Plant together with the Heavy Electricals, the share of large and medium sector should be less than 3 percent.69

While the financial outlays to the sector of industry and mining were themselves small, the actual amounts expended during Second, Third, Three Annual and Fourth Plan periods for these sectors were much lower as compared to the total plan expenditure. Table 15 shows the actual amounts expended for these sectors during the plan periods.

69. Draft Fifth Five Year Plan, Govt. of Madhya Pradesh, p. 415
However, the rate at which new undertakings are actually coming up is disappointing. The average annual growth of industries worked out 5 percent during 1961 to 1974.

PROBLEM OF INDUSTRIALISATION IN MADHYA PRADESH

According to the many estimates made by official and unofficial agencies about the industrial potential, the State's resources are fairly large and consequently the industrial development opportunities are also substantial. From coal to diamond, it is endowed with many mineral deposits spread over the length and breadth of the State. The State has abundant power and power potential for its expanding metallurgical and many other industries like fertilizers, paper, aluminium, cement etc. The central geographical position of the State is also favourable from the point of view of marketing of manufactured goods, because of its proximity to most of the other parts of the country, particularly to the neighbouring States and locational advantages. This position has special attractions particularly when the decisive consideration is economy in distribution costs. Besides these favourable conditions, under the Industrial Policy of the State, 1961

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70. Figure has been calculated
71. See NCAER: 'Techno-Economic Survey of Madhya Pradesh' op. cit., p. 80 and also see The IDBI and Others: 'Industrial Potential Survey, Madhya Pradesh', op. cit., Chapter VI, p. 20
72. The Industrial Policy of the State was first announced by the Commerce and Industries Minister, O.A. Rendoli on the 1st August, 1961.
many more liberal concessions and facilities are being given to relatively backward districts. This is a one-sided picture of the State which reveals the bright future of the State.

The other more important side is that the State has been rated by the Planning Commission as sixth lowest in industrial backwardness in the country. 35 out of the 45 districts have been identified as industrially backward as per-capita income is 25 percent of the all-India average. It shows a gloomy industrial spectrum of the State. Looking at this juxtaposition of the State, many questions arise. Why did the State remain behind in the race for industrialisation in comparison to other advanced States? Why are most of its areas still industrially undeveloped and still suffering from the vicious circle of poverty and backwardness when the vast resources are locally available? The answer to these questions is that the State is confronted with major handicaps in the development of industries which are as follows:

(1) The State suffers from serious deficiencies of economic and social 'overheads'. The most serious handicap is transport. About one third area of the State is 'inaccessible' by modern means of transport. Areas like Surguja and Bastar which have abundant mineral and forest resources are devoid of road/rail links. The transportation Map of India shows that both road and railway kilometerage per 100 Sq.km. and per 1000 persons in the State is below the national average. Whatever transportation development took place in Madhya Pradesh was chiefly because of strategic considerations and not because
of opening up resource-rich areas for development.73

(ii) The scarcity of skilled labour is one of the
gravest problem of rapid industrialisation in the State.
Workers used to the discipline of industrial work like Bombay
and West Bengal, are not locally available in large numbers.
The State has ever been deficient of technical hand. The present
technical training facilities are not sufficient for future
needs of the State.

(iii) Another setback in the industrialisation of
the State is the death of entrepreneurial ability or indus-
trially minded entrepreneurs in the State, who would come
forward to take advantage of the opportunities offered.

(iv) The weakness in the State administrative
machinery is also a serious handicap in the growth of indus-
try in the State. There has been a lack of integration in
varied administrative units which were merged for the formation
of Madhya Pradesh. A reasonably trained, experienced and
satisfied government staff is a precondition of effective deve-
lopment.

(v) Absence of consultancy services has been
an important bottleneck in the industrial progress of this
State. There is as yet no such cell of technicians belonging
to different discipline like metallurgy, engineering, chemical
technology etc. in the State, which can draw up detailed and
comprehensive schemes for manufacture of specific items identi-
fied which can be made available to the intending entrepreneurs.
Madhya Pradesh Audyogik Vikas Nigam, Bhopal is the only organi-
sation at State level which prepares industrial profiles

73. NCAER,'Techno-Economic Survey of Madhya Pradesh',op.cit.,p.78
and feasibility reports.

(vi) Lack of an aggressive promotional attitude on the part of all those involved in the programmes of industrial development of the State.

(vii) The deep-rooted feudal psychology dating back to the period of the British Rule is also one of the reasons for the slower development of industries in the State. The former princely rulers were not interested in the development of infrastructure facilities or industries. There may be a lot of idle money in the hands of people with feudal outlook. If it can be mobilized and channelised to productive sources, it can be of great help to industry.

(viii) Inadequate supply of capital to the industrial sector has been a most serious problem of industrialisation in the State. Due to the peculiar characteristics of an under-developed economy, there have been gaps between the demand for and the supply of financial resources required by the State industries. Lack of well-developed investing class of people in the State is not unknown. Those that are there in the field are proverbially shy. In most cases the concerns were even under-capitalised. It was revealed by the Provincial Banking Enquiry Committee for the Central Provinces (1929-30) that the Nagpur glass works at Nagpur had to refuse orders to the value of Rs. 11,000 for want of funds.74 This single case establishes the importance of finance in the development of industry. Finance is both a stimulus and an

obstacle to the industrial development. Its scarcity or abundance regulates the rate, size and process of industrialisation. Thus adequate supply of industrial finance is one of the most forceful incentives to accelerate the pace of industrialisation.

Finance has ever been a major problem of industrial development in the State of Madhya Pradesh. The State always suffered from the deficiency of organised capital market and institutions like issue houses and underwriting firms which could cater to the financial requirements of industries. Local people with feudal outlook were reluctant to invest their funds in industrial securities. This fact had been recognised long ago by the Provincial Banking Enquiry Committee for the Central Provinces. According to the Report of the Committee, 'Local capitalists had no enterprise to finance a new concern which they consider, do not provide adequate security'. Commercial banks which are conservative in their outlook, would provide finance to industry for working capital and also it is said that the expansion of branches of modern banks in the State has been very insignificant even to the date of nationalisation of big banks in the country.

According to the Techno-Economic Survey of Madhya Pradesh 'Industrial growth in Madhya Pradesh is possible through capital-intensive rather than labour-intensive industries.' Therefore, the demand for capital and skilled workers will sharply increase in future.

75 Ibid, op.cit., P.222
Thus finance is a pre-condition to industrial development of a State. If finance is not available in proper manner and in adequate quantum, progress is bound to suffer.

A resume would show that while there is a numerous industrial potential in the State, it is essential to create the necessary atmosphere for exploiting the same. Therefore, the first and foremost need is that severe handicap in the way of industrialisation should be expeditiously eradicated, the responsibility for which largely rests with the State Government. Apart from providing substantially the needed infra-structural facilities, the State Government should also take such measures which are more effective and sustained for creating the necessary momentum and impulse for industrialisation. This necessitates strengthening of the State machinery with right type of personnel in sufficient numbers.

In addition, the role played by other State-level promotional organisations such as the Madhya Pradesh Financial Corporation (MPFC) and the Madhya Pradesh Audyogik Vikas Nigam needs to be strengthened considerably with a view to creating a suitable industrial climate in the State. For the balanced economic development of the State, it is also necessary to remove regional disparities and backwardness within the State. A major part of the State comprising 35 out of 45 districts has been declared as backward and is eligible for concessional assistance from the all-India term-lending institutions. With this end in view, the Controllly sponsored/aided financial institutions along with State-level promotional organisation
should take a positive lead and play a cardinal role in cata-
lysing the promotional activities by making available their
technical and financial expertise to new entrepreneurs.

A study will now be made of the role of the all-India
financial institutions in the development of industries in
Madihya Pradesh within the frame work of national industrial
policy, in the chapters that follow after which the role of
MPFC will be evaluated.