

## CHAPTER – I

## A DEVELOPMENT PROFILE OF THE MANIPUR ECONOMY: STATE AND DISTRICT LEVEL ANALYSIS

## 1.1 AN INTRODUCTION

Socio-economic and environmental factors play an important role in development. Manipur and other parts of the Northeast are characterised by the dominance of tribal culture and ethnic diversity. One of the major dilemmas is development versus environmental protection. The issue of displacement is an adverse social repercussion. Another important issue is Manipur's remoteness from Indian mainland and accessibility to the rest of India on land is possible only through a circuitous route via a narrow corridor to Assam. These factors add to the constraints under which development has to be undertaken.

## 1.2 THE PRESENT STATUS OF DEVELOPMENT IN MANIPUR

Against this background, we shall try to assess in this chapter the present developmental status of Manipur. The most widely used single measure of the level of development, despite its limitations is per capita income. Table 1.1 portrays the present status of Manipur in terms of a few other key indicators of development as well.

A study of the figures provided in table 1.1 suggest that the pace of development of Manipur since 1993-94 in terms of the per capita income has by and large been almost of the same order as at the All-India level. Manipur's growth of per capita income over the period 1994-2002 (54.24%) exceeded the All-India growth of per capita income over this period (42.66%) but in terms of absolute change it lagged behind per capita income expansion at the All-India level. Estimates of per capita income do not convey any idea about the way income is distributed among those belonging to different strata of society. The most important dimension of distribution in less developed areas is reflected by the proportion of those who are not able to rise above the poverty line. The proportion of person falling below the poverty line as per official Planning Commission data has to be taken with a pinch of salt since there is no separate NSS region for Manipur. Therefore, Assam figures are used for Manipur. In order to derive somewhat more representative estimates, some adjustments have been made on the basis of State per capita income figures. It has been assumed that the proportionate difference between poverty estimates of Assam and Manipur is the same as between per capita income of Assam and Manipur. The estimates of poverty derived in this manner for 1993-94 and 1999-2000, are given in column (4) of Table 1.1.

| S. No. | Variables                                 | Year      | Manipur | All India | Development Gaps<br>(Manipur as All India %) |
|--------|---|-----------|---------|-----------|--|
| 1      | Per Capita Income in Rs. (1993-94 Prices) | 1980-81   | 4901    | 5966      | 82.15  |
|        |   | 1993-94   | 5811    | 8759      | 66.34  |
|        |   | 2001-02   | 8963    | 12496     | 71.73  |
|        | Per Capita income change                  | 1994-2002 | 3152    | 3737      | 84.35  |
| 2      | Rural Poverty %                           | 1993-94   | 45.94   | 37.27     | 123.26                                       |
|        | Urban Poverty %                           | 1993-94   | 7.89    | 32.36     | 24.38  |
|        | Rural Poverty %                           | 1999-00   | 42.59   | 27.09     | 157.22                                       |
|        | Urban Poverty %                           | 1999-00   | 7.95    | 23.62     | 33.66  |

*Development Profile of Manipur*

|                    |                                    |              |       |        |        |
|--------------------|------------------------------------|--------------|-------|--------|--------|
|                    | Rural Poverty (Adj) Change         | 1994-2000    | -3.35 | -10.18 | 32.91  |
|                    | Urban Poverty (Adj) Change         | 1994-2000    | 0.06  | -8.74  | -0.69  |
| 3                  | Population Density/ Sq. Km         | 1991         | 82    | 267    | 30.71  |
|                    |                                    | 2001         | 103   | 324    | 33.02  |
|                    | Decadal Pop. Growth Rate (%)       | 1981 to 1991 | 29.29 | 23.86  | 122.76 |
|                    |                                    | 1991 to 2001 | 24.86 | 21.34  | 140.67 |
| Urban Population % | 1991                               | 27.52        | 25.70 | 107.09 |        |
|                    | 2001                               | 25.10        | 27.80 | 86.76  |        |
| 4                  | Literacy %                         | 1991         | 59.89 | 52.20  | 114.73 |
|                    |                                    | 2001         | 70.50 | 64.80  | 105.31 |
|                    | Female Literacy %                  | 1991         | 47.60 | 39.30  | 121.12 |
|                    |                                    | 2001         | 60.50 | 53.70  | 110.15 |
| 5                  | Power Consumption Per Capita (Kwh) | 1991         | 96    | 253.40 | 37.88  |
|                    |                                    | 1998         | 149   | 349.10 | 42.68  |
|                    |                                    | 2002-03      | 66    | 400    | 16.50  |

\* These rural and urban poverty estimates of Manipur are adjusted figure derived by assuming the proportion between Manipur and Assam poverty as between Manipur and Assam SDP per capita  
 Source: SHM 1980-2002, DES, Govt. of Manipur, Imphal - 795004, V K Thakral, pp. 376-379, Economic Survey, 2003, Govt. of Manipur, p. 193, SAM, 1992, Economic Review 1994-95,

As may be observed from these adjusted estimates, during 1993-94 the proportion of rural population falling below the poverty line in Manipur (45.94%) was perceptibly higher than at the All-India level (37.27%). By 1999-2000, the proportion of rural population falling below the poverty line in Manipur reduced to 42.5%. But in relation to All-India estimates of rural poverty during 1999-2000 (27.09%), this decline is much less. However, the picture in respect of urban poverty is different. In 1993-94, urban poverty in Manipur was 7.89% as against 32.36% at the All-India level.\* The problem of comparability of 1993-94 and 1999-2000 poverty estimates in general make the task of arriving at the true picture doubly difficult.

We may now look at the demographic scenario of Manipur. One of the important facets is the highly lopsided geographical distribution of population with a substantial chunk of population concentrated in the valley, a tenth of the entire area of Manipur. Moreover, almost all urban centres are in the valley with the hilly area, being rural in character. The population density of the state as a whole was 101 per sq km in 2001, which is nearly one third of the All-India level. But population density of the valley areas is over fifteen times the hilly areas. A similar differentiation exists in respect of the degree of urbanization with the valley at seven times of that in the hilly portions.

It may be noted that the rate of population growth has been substantially higher in Manipur than at the All-India level.

### **1.3 STRUCTURE OF THE MANIPUR ECONOMY**

Table 1.2a presents a sectoral delineation of the Gross State Domestic Product of Manipur in terms of the share of primary, secondary, and tertiary sectors and their sub-sectoral components at three points of time. Corresponding All-India picture, for comparative purpose, is presented in Table 1.2b.

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\* It rose marginally to 7.95% in 1999-2000 when the all India urban poverty ratio declined sharply from 32.36 to 23.62

In 1980-81 primary sector contributed the largest share (45.46 %) with agriculture as its dominant component (41.98 %) as against 44.44 % share of the primary sector at the All-India level and agriculture at 35.42 %. tertiary sector followed closely on its heels at 42.65 %, which was even higher than at the All-India level (36.45 %), mainly on account of the much higher share in Manipur of the real estate and business sub-sector (Manipur- 12.48%) and public administration (10.26%) than at the All-India level (6.08 % and 5.11% respectively). The share of the secondary sector in Manipur was much smaller (11.89 %) than at the All-India level (23.11 %).

Within the secondary sector, registered manufacturing, was expectedly negligible in Manipur (0.29 %) as against India (9.52 %), which was itself low. Within the secondary sector, construction formed the most dominant component (6.31 %) in case of Manipur.

When we come to 2001-02, in conformity with the All India trend, the share of the primary sector had declined to 29.57%, that is, a change of the order of -19.22. The major difference in Manipur's pattern of change within the primary sector is the increase in the contribution of forests and logging. This shows the growing role of the forestry segment in Manipur.

There is a major increase in the contribution of the secondary sector by 11.21 points. There are two sub-sectors which are responsible for this. Manipur's construction segment registered an increase to 10.72% of GSDP in 2001-02 The construction data is baffling on account of the falling share of employment in this sector and no evidence of mechanisation. Much of the jobs generated by construction have gone to migrant labourers from Bihar, UP and West Bengal thereby reducing the share of local workers.

The second segment to grow is unregistered manufacturing activity. The registered manufacturing activity, which is of a large scale character by its very nature, is presently not very suited to the terrain, the existing level of infrastructure development and market access. But such constraints are less binding in the growth of small scale and micro-level unregistered segment.

| S. No.           | Industries                                       | % Share |         |         |         | Change in % ages   |                    |                    |
|------------------|--|---------|---------|---------|---------|--------------------|--------------------|--------------------|
| Year             |  | 1980-81 | 1990-91 | 1993-94 | 2001-02 | 1980-81 to 1993-94 | 1993-94 to 2001-02 | 1980-81 to 2001-02 |
| 1.               | Agriculture                                      | 41.98   | 30.23   | 29.18   | 22.76   | -12.80             | -6.42              | -19.22             |
| 2.               | Forestry & logging                               | 2.22    | 1.63    | 3.23    | 4.62    | 1.01               | 1.40               | 2.41               |
| 3.               | Fishing  | 1.26    | 3.31    | 3.08    | 2.18    | 1.82               | -0.90              | 0.92               |
| 4.               | Mining & quarrying                               |         | 0.00    | 0.00    | 0.00    |                    | 0.00               | 0.00               |
| <b>Primary</b>   |  | 45.46   | 35.17   | 35.49   | 29.57   | -9.97              | -5.92              | -15.89             |
| 5.               | Manufacturing                                    | 4.75    | 6.09    | 7.44    | 0.10    | -4.18              | -0.47              | -4.65              |
| 5.1              | Registered                                       | 0.29    | 0.18    | 0.29    | 0.05    | -0.01              | -0.23              | -0.24              |
| 5.2              | Unregistered                                     | 4.46    | 5.91    | 7.15    | 8.35    | 2.70               | 1.20               | 3.90               |
| 6.               | Construction                                     | 6.31    | 7.66    | 6.68    | 10.72   | 0.38               | 4.04               | 4.41               |
| 7.               | Electricity, gas and water supply                | 0.84    | 0.04    | 4.49    | 3.98    | 3.65               | -0.51              | 3.14               |
| <b>Secondary</b> |  | 11.89   | 13.79   | 18.61   | 23.10   | 6.72               | 4.49               | 11.21              |
| 8.               | Transport, storage & communication               | 1.95    | 5.55    | 4.34    | 3.81    | 2.39               | -0.53              | 1.87               |
| 8.1              | Railways   |         | 0.00    | 0.00    | 0.00    |                    | 0.00               | 0.00               |
| 8.2              | Transport by other means                         | 1.72    | 5.30    | 3.70    | 3.23    | 1.98               | -0.47              | 1.51               |
| 8.3              | Storage  | 0.01    | 0.01    | 0.00    | 0.00    | 0.00               | 0.00               | -0.01              |
| 8.4              | Communication                                    | 0.23    | 0.24    | 0.64    | 0.58    | 0.41               | -0.06              | 0.36               |
| 9.               | Trade, hotels and restaurants                    | 5.06    | 3.90    | 10.97   | 8.44    | 5.91               | -2.54              | 3.37               |
| 10.              | Banking & Insurance                              | 1.13    | 1.85    | 1.48    | 1.10    | 0.34               | -0.38              | -0.04              |
| 11.              | Real estate, ownership of dwellings and business | 12.48   | 12.71   | 3.94    | 2.94    | -8.54              | -1.00              | -9.54              |
| 12.              | Public administration                            | 10.26   | 12.68   | 13.94   | 15.05   | 3.68               | 1.10               | 4.78               |
| 13.              | Other services                                   | 11.75   | 14.36   | 11.23   | 16.00   | -0.53              | 4.78               | 4.25               |
| <b>Tertiary</b>  |  | 42.65   | 51.04   | 45.90   | 47.33   | 3.25               | 1.43               | 4.68               |
| 14.              | Gross state domestic                             | 100.00  | 100.00  | 100.00  | 100.00  | 0.00               | 0.00               | 0.00               |

Coming to the tertiary sector, in the initial year, i.e., 1980-81, the contribution of tertiary sector (42.65%) was much higher than at the All-India level (36.45%). But over the period 1981-02, the shift towards tertiary sector was much lower (+4.68) than at the All-India level (+19.23). This is partly because tertiarisation can be expected to be much less in case of a low development status economy like that of Manipur. Secondly, Real Estate segment, shrunk by 8.54 points during the 1980s. This also points to the possibility of lack of reliability in the initial year data pertaining to the tertiary segment.

It should be noted that it is the share that is shrinking and this may be compatible with rising contribution of this sub sector, since other sectors are rising faster.

| S. No. | Industries                                       | % Share      |              |              | Change in % Share  |                    |               |
|--------|--|--------------|--------------|--------------|--------------------|--------------------|---------------|
|        |  | 1980-81      | 1993-94      | 2001-02      | 1980-81 to 1993-94 | 1993-94 to 2001-02 | 1981 to 2002  |
| Year   |  |              |              |              |                    |                    |               |
| 1.0    | Agriculture, forestry & fishing                  | 38.68        | 30.97        | 24.96        | -7.71              | -13.72             | -21.43        |
| 1.1    | Agriculture                                      | 35.42        | 28.39        | 22.62        | -7.03              | -12.80             | -19.82        |
| 1.2    | Forestry & logging                               | 2.52         | 1.47         | 1.16         | -1.05              | -1.35              | -2.41         |
| 1.3    | Fishing  | 0.74         | 1.11         | 1.17         | 0.37               | 0.43               | 0.80          |
| 2.0    | Mining & quarrying                               | 1.76         | 2.57         | 2.29         | 0.81               | 0.53               | 1.34          |
|        | <b>Primary</b>                                   | <b>40.44</b> | <b>33.54</b> | <b>27.25</b> | <b>-6.90</b>       | <b>-13.19</b>      | <b>-20.09</b> |
| 3.0    | Manufacturing                                    | 16.70        | 16.06        | 15.31        | -0.64              | -1.38              | -2.02         |
| 3.1    | Registered                                       | 9.52         | 10.48        | 10.08        | 0.96               | 0.56               | 1.52          |
| 3.2    | Unregistered                                     | 7.18         | 5.58         | 5.23         | -1.60              | -1.95              | -3.54         |
| 4.0    | Elect. gas & water supply                        | 1.62         | 2.43         | 2.12         | 0.81               | 0.51               | 1.32          |
| 5.0    | Construction                                     | 4.79         | 5.20         | 5.95         | 0.40               | 1.16               | 1.56          |
|        | <b>Secondary</b>                                 | <b>23.11</b> | <b>23.69</b> | <b>23.39</b> | <b>0.58</b>        | <b>0.28</b>        | <b>0.86</b>   |
| 6.0    | Trade, hotels & restaurant                       | 11.51        | 12.72        | 14.32        | 1.21               | 2.81               | 4.02          |
| 6.1    | Trade  | 10.83        | 11.93        | 13.30        | 1.09               | 2.47               | 3.56          |
| 6.2    | Hotels & restaurants                             | 0.68         | 0.79         | 1.02         | 0.11               | 0.34               | 0.45          |
| 7.0    | Transport, storage & Communication               | 4.49         | 6.54         | 7.53         | 2.05               | 3.03               | 5.08          |
| 7.1    | Railways   | 0.86         | 1.23         | 0.93         | 0.37               | 0.07               | 0.44          |
| 7.2    | Transport by other means                         | 2.92         | 4.02         | 4.92         | 1.11               | 2.00               | 3.11          |
| 7.3    | Storage  | 0.11         | 0.08         | 0.07         | -0.03              | -0.04              | -0.06         |
| 7.4    | Communication                                    | 0.61         | 1.21         | 1.61         | 0.60               | 1.00               | 1.60          |
| 8.0    | Financing, insurance, real Estate                | 9.05         | 11.53        | 12.92        | 2.48               | 3.87               | 6.35          |
| 8.1    | Banking & insurance                              | 2.97         | 5.33         | 6.40         | 2.36               | 3.43               | 5.79          |
| 8.2    | Real estate, ownership of dwellings and business | 6.08         | 6.20         | 6.53         | 0.11               | 0.45               | 0.56          |
| 9.0    | Community, social & Personal Service             | 11.39        | 11.98        | 14.59        | 0.59               | 3.19               | 3.78          |
| 9.1    | Public administration & defence                  | 5.11         | 5.58         | 6.35         | 0.48               | 1.25               | 1.73          |
| 9.2    | Other services                                   | 6.29         | 6.40         | 8.23         | 0.11               | 1.94               | 2.05          |
|        | <b>Tertiary</b>                                  | <b>36.45</b> | <b>42.77</b> | <b>49.36</b> | <b>6.32</b>        | <b>12.91</b>       | <b>19.23</b>  |
| 10.0   | Gross Domestic Product                           | 100.00       | 100.00       | 100.00       | 0.00               | 0.00               | 0.00          |

#### 1.4 EMPLOYMENT STRUCTURE OF THE MANIPUR ECONOMY AND ITS PRODUCTIVITY

Sectoral structure of an economy can also be studied in terms of employment absorption. In case of employment, data is a problem for small states like Manipur as the NSS sample is too small to generate reliable figures. Therefore, Census was the only source, which could be drawn upon. 2001 Census based estimates of employment are not yet available. Moreover, 1971 & 1991 Census workforce data are not fully comparable on account of definitional changes.

Table 1.3: Employment Structure Indicators: UPSS Workforce Based on 1993-94 and 1999-00 Survey

| Industries                         | Manipur       |                          | All India     |               |
|------------------------------------|---------------|--------------------------|---------------|---------------|
|                                    | 1971          | 1991 (Main workers only) | 1993-94       | 1999-00       |
| Agri. & Allied                     | 71.27         | 69.97                    | 64.75         | 59.84         |
| Mining & Quarrying                 | 0.02          | 0.03                     | 0.72          | 0.57          |
| <b>Primary</b>                     | <b>71.30</b>  | <b>70.00</b>             | <b>65.47</b>  | <b>60.41</b>  |
| Manufacturing                      | 10.98         | 8.11                     | 11.35         | 12.09         |
| Elec. Gas. Ws                      |               |                          | 0.36          | 0.32          |
| Construction                       | 1.25          | 1.55                     | 3.12          | 4.44          |
| <b>Secondary</b>                   | <b>12.23</b>  | <b>9.66</b>              | <b>14.83</b>  | <b>16.85</b>  |
| Trade hotel & rest                 | 3.55          | 3.83                     | 7.42          | 9.40          |
| Transport, Storage & Communication | 1.09          | 1.21                     | 2.76          | 3.70          |
| Financial Services                 |               |                          | 0.94          | 1.27          |
| Community and Social Services      | 11.83         | 15.30                    | 9.38          | 8.36          |
| <b>Tertiary</b>                    | <b>16.47</b>  | <b>20.34</b>             | <b>20.50</b>  | <b>22.74</b>  |
| <b>All Sectors</b>                 | <b>100.00</b> | <b>100.00</b>            | <b>100.00</b> | <b>100.00</b> |

Note: While 1971 & 1991 Manipur data are based on Census data, All-India figures for 1993-94 & 1999-00 are based on NSS data.

Table 1.4: Total workers and productivity (per worker) in Manipur

| Industries                         | Total workers (No.) | GSDP (Rs. in lakh) | Productivity         | % of Sub-sector |
|------------------------------------|---------------------|--------------------|----------------------|-----------------|
|                                    | 1991                | 1990-91            | per worker 1991 (Rs) | to total        |
| Agriculture & Allied               | 495580              | 30118              | 6077                 | 52.46           |
| Mining & Quarrying                 | 212                 | 1                  | 471                  | 4.06            |
| <b>Primary</b>                     | <b>495792</b>       | <b>30119</b>       | <b>6075</b>          | <b>52.43</b>    |
| Manufacturing                      | 57433               | 2561               | 4458                 | 38.48           |
| Electricity gas & water supply     | 0                   | 2902               |                      | 0.00            |
| Construction                       | 10971               | 6466               | 58898                | 508.37          |
| <b>Secondary</b>                   | <b>68404</b>        | <b>11929</b>       | <b>17435</b>         | <b>150.49</b>   |
| Trade, hotels & restaurant         | 27156               | 3360               | 12386                | 106.91          |
| Transport, storage & Communication | 8536                | 3981               | 46452                | 400.94          |
| Financing, insurance, real estate  | 0                   | 4107               |                      | 0.00            |
| Community, social & other services | 108395              | 20419              | 18842                | 162.64          |
| <b>Tertiary</b>                    | <b>144087</b>       | <b>31867</b>       | <b>27773</b>         | <b>239.72</b>   |
| All sector                         | 708283              | 73915              | 11586                | 100             |

Subject to these limitations, there is a discernible difference between the structure of the Manipur economy and All India. The reliance of Manipur on the primary sector in terms of employment at 70% in 1991 was far higher than in terms of income of (Table 1.3 and 1.2a) 35.49% in 1993-94.

While the share of income originating in the secondary sector was 18.61% in 1993-94, the share of employment was much less at 9.66%. What is disconcerting, however, is the fact that in Manipur, the secondary sector percentage declined from 12.23% to 9.66%, which is contrary to the All-India trend. However, this aberration could be a consequence of data shortcomings, since we had to rely on Census data where, on account of definitional modifications, comparability is a problem.

In case of the tertiary sector, its share in employment in Manipur was 20.34% in 1991 as against the much higher 45.90% share in income in 1993-94, reflecting a much higher level of productivity per worker in the tertiary sector than in the other two sectors.

The tertiary sector is underdeveloped in terms of employment with very little of trade or financial services. Even transport and communications is very small, which is again a consequence of very low level of infrastructure development. It indicates a need to bring about structural diversification of the economy and to develop segments other than agriculture and forestry.

On account of data limitations, sectoral productivity per worker, measured as a ratio of GSDP to workforce employed in different sectors and sub-sectors, could be estimated only for 1991. These estimates at current prices are given in Table 1.4. Predictably, productivity per worker is the lowest in the primary sector at Rs.6075. Secondary sector productivity is roughly three times of that and tertiary sector productivity is nearly four and a half times. The highest productivity sub-sector is construction activity, which may be on account of GSDP data error pertaining to that sector. Within the tertiary sector, Storage and Communication has the highest.

## **1.5 GROWTH OF THE MANIPUR ECONOMY**

### **(a) Overall**

Structural change is brought about through growth and depends on the relative rates of expansion of sectoral income. Therefore, in this section we shall first look at the pace of aggregate GSDP growth and then its sectoral / sub-sectoral delineation which reflects the degree of dynamism in different sectors. Annual growth rates have been averaged for two periods of time, namely from 1980-81 to 1993-94 based on 1980-81 price series and from 1993-94 to 2001-02 based on the new 1993-94 price series. For comparative purposes growth rates at the All-India level based on the same methodology are given for the same two time periods using a single price based series for the entire period.

The average growth rate of the Manipur economy during 1981-94 was 4.95, which increased to 6.72 during 1994-02. At the All-India level the growth rates were 5.99 and 6.24 respectively. (Table 1.5a & 1.5b) In the second period, Manipur's growth rate is more than the All-India growth rate.

While GDP and GSDP growth rates give an indication of the overall macro-economic performance of an economy, neither convey an idea about their impact on incomes of the people. For that purpose, one has to factor in the pace of expansion of population, information about which is given in table 1.1a.

Table 1.5a: Average annual growth Rate of GSDP (Manipur)

| S. No            | Industries                                       | Average annual Growth rate         |                                    | Change in growth rate between the two phases |
|------------------|--|------------------------------------|------------------------------------|--|
|                  |  | 1981-82 to 1993-94 (1980-81 price) | 1993-94 to 2001-02 (1993-94 price) |  |
| 1.               | Agriculture                                      | 1.97                               | 2.28                               | 0.31   |
| 2.               | Forestry & logging                               | 4.47                               | 11.26                              | 6.79   |
| 3.               | Fishing  | 16.17                              | 7.06                               | -9.11  |
| 4.               | Mining & quarrying                               | -                                  | -                                  | -  |
| <b>Primary</b>   |  | <b>2.75</b>                        | <b>3.34</b>                        | <b>0.58</b>                                  |
| 5.               | Manufacturing                                    | 3.13                               | 11.60                              | 8.47   |
| 5.1              | Registered                                       | 30.90                              | -8.28                              | -39.18                                       |
| 5.2              | Unregistered                                     | 3.05                               | 12.16                              | 9.11   |
| 6.               | Construction                                     | 7.07                               | 14.35                              | 7.29   |
| 7.               | Electricity, gas and Water supply                | 28.47                              | 6.30                               | -22.17                                       |
| <b>Secondary</b> |  | <b>4.88</b>                        | <b>10.45</b>                       | <b>5.57</b>                                  |
| 8.               | Transport, storage & communication               | 17.06                              | 6.07                               | -10.99                                       |
| 8.1              | Railways   | -                                  | -                                  | -  |
| 8.2              | Transport by other means                         | 17.90                              | 5.13                               | -12.77                                       |
| 8.3              | Storage  | 0.00                               | 0.42                               | 0.42   |
| 8.4              | Communication                                    | 11.22                              | 10.83                              | -0.39  |
| 9.               | Trade, hotels and restaurants                    | 3.71                               | 5.45                               | 1.74   |
| 10.              | Banking & Insurance                              | 9.36                               | 7.64                               | -1.72  |
| 11.              | Real estate, ownership of dwellings and business | 5.08                               | 4.92                               | -0.16  |
| 12.              | Public administration                            | 6.95                               | 8.70                               | 1.74   |
| 13.              | Other services                                   | 6.92                               | 12.28                              | 5.37   |
| <b>Tertiary</b>  |  | <b>6.89</b>                        | <b>7.79</b>                        | <b>0.90</b>                                  |
| 14.              | <b>Gross state domestic product</b>              | <b>4.95</b>                        | <b>6.72</b>                        | <b>1.77</b>                                  |
|                  | <b>CV</b>  | <b>91.15</b>                       | <b>84.89</b>                       |  |



| S. No.           | Industry  | 1981-82 to 1993-94 | 1993-94 to 2001-02 | Change in Growth rate |
|------------------|---|--------------------|--------------------|-----------------------|
| 1                | Agriculture, forestry & fishing                           | 3.45               | 3.03               | -0.42                 |
| 1.1              | Agriculture   | 3.62               | 3.04               | -0.58                 |
| 1.2              | Forestry & logging  | -0.16              | 1.84               | 2.00                  |
| 1.3              | Fishing   | 6.42               | 4.36               | -2.06                 |
| 2                | Mining & quarrying  | 7.03               | 4.54               | -2.49                 |
| <b>Primary</b>   |   | <b>3.58</b>        | <b>3.13</b>        | <b>-0.45</b>          |
| 3                | Manufacturing   | 6.34               | 6.95               | 0.61                  |
| 3.1              | Registered  | 7.45               | 7.09               | -0.36                 |
| 3.2              | Unregistered  | 4.73               | 6.73               | 2.00                  |
| 4                | Electricity, gas & water supply                           | 8.48               | 6.20               | -2.27                 |
| 5                | Construction  | 4.47               | 6.00               | 1.53                  |
| <b>Secondary</b> |   | <b>5.76</b>        | <b>6.65</b>        | <b>0.89</b>           |
| 6                | Trade, hotels & restaurant                                | 6.09               | 8.49               | 2.40                  |
| 6.1              | Trade   | 6.04               | 8.33               | 2.29                  |
| 6.2              | Hotels & restaurants                                      | 7.04               | 10.75              | 3.72                  |
| 7                | Transport, storage & Communication                        | 6.25               | 9.65               | 3.40                  |
| 7.1              | Railways  | 4.47               | 4.88               | 0.40                  |
| 7.2              | Transport by other means                                  | 6.62               | 6.99               | 0.37                  |
| 7.3              | Storage   | 3.60               | 1.71               | -1.89                 |
| 7.4              | Communication   | 7.72               | 19.13              | 11.42                 |
| 8                | Financing, insurance, real Estate                         | 10.63              | 7.28               | -3.34                 |
| 8.1              | Banking & insurance                                       | 13.04              | 8.92               | -4.12                 |
| 8.2              | Real estate, ownership of dwellings and business services | 9.07               | 5.81               | -3.26                 |
| 9                | Community, social & Personal Service                      | 6.20               | 7.82               | 1.62                  |
| 9.1              | Public administration & defence                           | 6.44               | 6.97               | 0.53                  |
| 9.2              | Other services  | 6.03               | 8.55               | 2.51                  |
| <b>Tertiary</b>  |   | <b>6.55</b>        | <b>8.15</b>        | <b>1.60</b>           |
| 10               | Gross Domestic Product at CV                              | 5.99               | 6.24               | 0.25                  |
|                  |   | <b>44.02</b>       | <b>57.68</b>       |                       |

Table 1.6: Average Annual Per Capita Income Growth

| Year               | Manipur | All-India |
|--------------------|---------|-----------|
| 1980-81 to 1993-94 | 2.43    | 3.05      |
| 1993-94 to 2001-02 | 3.44    | 4.19      |

A high pace of population growth whittles down the benefits GSDP growth in terms of per capita income. This is quite evident from Table 1.6. Therefore, the advantage in terms of a slightly higher growth rate of Manipur's economy over that at the All-India level dwindles with Manipur's high population growth.

**(b) Sectoral Growth**

There are wide variations in the pace of growth across sectors, during both the periods but somewhat more during the 1980s Table 1.5a. The co-efficient of variation of growth across sectors shows a higher variability during the 1980s. During 1994-02 the highest growth rate was exhibited by the secondary sector (10.40% p.a.) followed by tertiary at 7.79% p.a. and the lowest at 3.34% p.a. by the primary sector. This was in sharp contrast to the All-India position where the tertiary sector grew at a higher rate. However, such a high rate of growth of the secondary sector in Manipur could be an outcome of some data aberrations. During the 1980s, even in the case of Manipur the tertiary sector grew at a faster rate (6.89%) than the secondary sector (4.88%).

| S. No.           | Industry  | CV                 |                    |
|------------------|---|--------------------|--------------------|
|                  |   | 1981-82 to 1993-94 | 1994-95 to 2001-02 |
| 1.               | Agriculture   | 212.41             | 198.90             |
| 2.               | Forestry & logging  | 565.41             | 326.48             |
| 3.               | Fishing   | 105.38             | 69.79              |
| 4.               | Mining & quarrying  |                    | -241.58            |
| <b>Primary</b>   |   | <b>131.64</b>      | <b>162.29</b>      |
| 5.               | Manufacturing   | 456.15             | 137.45             |
| 5.1              | Registered  | 318.76             | -350.27            |
| 5.2              | Unregistered  | 438.01             | 139.63             |
| 6.               | Construction  | 49.03              | 135.67             |
| 7.               | Electricity, gas and Water supply                         | 599.54             | 519.30             |
| <b>Secondary</b> |   | <b>144.19</b>      | <b>92.64</b>       |
| 8.               | Transport, storage & communication                        | 78.12              | 35.11              |
| 8.1              | Railways  |                    |                    |
| 8.2              | Transport by other means                                  | 81.31              | 28.77              |
| 8.3              | Storage   |                    | 2359.18            |
| 8.4              | Communication   | 276.29             | 76.41              |
| 9.               | Trade, hotels and restaurants                             | 133.01             | 246.53             |
| 10.              | Banking & Insurance                                       | 185.27             | 208.94             |
| 11.              | Real estate, ownership of dwellings and business services | 46.23              | 4.02               |
| 12.              | Public administration                                     | 52.15              | 264.04             |
| 13.              | Other services  | 46.85              | 175.72             |
| <b>Tertiary</b>  |   | <b>29.07</b>       | <b>153.40</b>      |
| 14.              | Gross state domestic product                              | 44.05              | 93.04              |

Among the sub-sectors forestry and logging grew at one of the highest rates during 1994-2002. Unregistered manufacturing sector also grew at a very fast pace during 1994-02, as did construction. On the other hand, the registered manufacturing component exhibited a decline from the phenomenal level of 30.90% to -8.28%. But communication and banking have shown consistently high growth rates, though banking growth rate declined. It may, however, be pointed out that growth variability across sectors at the All-India level was higher during 1994-2002 than during 1982-94 although the level of variability across sectors had been much higher in Manipur than at the All-India level.

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Variations in growth rates across sectors and sub-sectors reflect the differing patterns of demand and technological change across sectors. In contrast variability in growth rates over time for each sector reflects instability in the growth process and should be reduced to the maximum extent possible. All sectors in Manipur show volatility in growth. Among the sectors, instability is the highest in case of the primary sector, as agriculture is subject to much greater influence of variation in weather. Forestry and logging also show a high degree of variability. Unlike the All-India level where variability of secondary sector growth is much lower, in Manipur almost all sub-sectors reveal a high degree of variability. Similarly, tertiary growth in Manipur also appears to be quite unstable.

Table 1.7b: Coefficient of Variation of Growth Rate of India (Over Time)

| S. No | Industry                             | CV                    |                       |
|-------|--------------------------------------|-----------------------|-----------------------|
|       |                                      | 1981-82 to<br>1993-94 | 1994-95 to<br>2001-02 |
| 1     | Agriculture, forestry & fishing      | 145.35                | 143.16                |
| 1.1   | Agriculture                          | 151.02                | 155.12                |
| 1.2   | Forestry & logging                   | -1343.99              | 67.71                 |
| 1.3   | Fishing                              | 86.64                 | 87.99                 |
| 2     | Mining & quarrying                   | 66.64                 | 77.37                 |
|       | <b>Primary</b>                       | <b>130.01</b>         | <b>122.27</b>         |
| 3     | Manufacturing                        | 63.23                 | 60.15                 |
| 3.1   | Registered                           | 64.45                 | 71.93                 |
| 3.2   | Unregistered                         | 117.60                | 53.42                 |
| 4     | Elect. gas & water supply            | 17.90                 | 30.79                 |
| 5     | Construction                         | 107.02                | 40.74                 |
|       | <b>Secondary</b>                     | <b>53.76</b>          | <b>44.94</b>          |
| 6     | Trade, hotels & restaurant           | 33.95                 | 35.57                 |
| 6.1   | Trade                                | 34.57                 | 35.70                 |
| 6.2   | Hotels & restaurants                 | 46.81                 | 47.48                 |
| 7     | Transport, storage & Communication   | 23.73                 | 17.13                 |
| 7.1   | Railways                             | 132.59                | 59.91                 |
| 7.2   | Transport by other means             | 29.40                 | 29.42                 |
| 7.3   | Storage                              | 106.84                | 238.83                |
| 7.4   | Communication                        | 40.18                 | 19.94                 |
| 8     | Financing, insurance, real Estate    | 21.76                 | 37.60                 |
| 8.1   | Banking & insurance                  | 41.65                 | 65.18                 |
| 8.2   | Real estate, ownership of            | 11.49                 | 29.37                 |
| 9     | Community, social & Personal Service | 36.82                 | 41.99                 |
| 9.1   | Public administration & defence      | 54.39                 | 74.24                 |
| 9.2   | Other services                       | 31.38                 | 22.15                 |
|       | <b>Tertiary</b>                      | <b>18.59</b>          | <b>22.49</b>          |
| 10    | <b>Gross domestic product</b>        | <b>44.06</b>          | <b>16.92</b>          |

## **1.6 DISTRICT LEVEL DEVELOPMENT PROFILE**

The focus of attention up till now was on the overall level of development of the Manipur economy. There are also intra-state imbalances in development across districts. The analysis of district level development is carried out in terms of seven developmental categories, namely:

- (a) Agriculture Development.
- (b) Industrial Development.
- (c) Urbanization.
- (d) Tertiary Development.
- (e) Infrastructural Development.
- (f) Bank Finance.
- (g) Educational Development.

The total number of indicators, which are readily available for all these seven sectors are twenty-seven. Among these, data on six variables pertain to the agricultural sector. Data are directly available for five agricultural indicators, namely, cropping intensity estimated through division of gross cultivated area by net cultivated area, rice irrigated area as percentage of gross cropped area, average size of operational holding, fertilizer consumption per hectare and bank credit to agriculture per hectare. Information on yield per hectare of rice has been used as a proxy for the productivity estimates since rice is the most important crop.

Data pertaining to industrial development are available for four indicators, namely, (i) Secondary employment as percentage of total workforce, (ii) Ratio of non-household industry employment to total industry employment, (iii) Bank credit per capita to small scale industries and (iv) Bank credit per capita to industry. In the absence of any output based estimates of productivity per worker, the nearest proxy is to obtain the relative significance of non-household and household industries since productivity of non-household segment is far higher than that of the household segment. The last two indicators are more representative of the government's attempts to develop various districts of the state.

For urbanization only a single indicator has been drawn upon, namely, the percentage of urban population to total population of each district. But in view of lower significance of urbanization in Manipur, a lower weight has been assigned to this indicator. Similarly, for tertiary development, percentage of tertiary employment to total workforce has been utilized as the key indicator. For infrastructure development, three indicators were considered, viz., percentage of village electrified, road length per sq. km and member of bank branches per lakh of population, data for which are given in table 1.8.

The indicator of Bank Finance Development used here is the Credit Deposit Ratio.

The last segment contains five indicators of educational development, viz., (i) Aggregate literacy percentage, (ii) Female literacy percentage, (iii) Enrolment percentage in classes I-V, (iv) Enrolment percentage in classes VI-VIII and (v) Enrolment percentage in classes IX-X.

## Development Profile of Manipur

| Table 1.8 : List of District Level Developmental Indicators |  |          |            |               |         |            |           |         |         |         |
|---|--|----------|------------|---------------|---------|------------|-----------|---------|---------|---------|
| S. No.  | Indicator  | Senapati | Tamenglong | Churachandpur | Chandel | Imphal (U) | Bishnupur | Thoubal | Ukhrul  | Manipur |
| <b>Agricultural Development</b>                             |  |          |            |               |         |            |           |         |         |         |
| 1   | Rice yield per hectare (kg/hectare) (2002-03)                                  | 2039.54  | 1220.13    | 2077.80       | 1057.04 | 5125.09    | 2836.95   | 2105.96 | 1834.21 | 2192.35 |
| 2   | Cropping intensity   | 122.96   | 116.81     | 113.71        | 123.49  | 121.65     | 132.00    | 153.79  | 136.31  | 125.10  |
| 3   | Rice Irrigated area as % of Area under Rice                                    | 31.34    | 4.05       | 0.00          | 2.14    | 1.51       | 46.27     | 9.59    | 0.00    | 11.61   |
| 4   | Average size of operational holding (ha)                                       | 1.10     | 2.20       | 0.98          | 1.58    | 1.19       | 1.42      | 1.05    | 1.36    | 1.6     |
| 5   | Fertilizer consumption (Kg./ha)  | 11.78    | 8.72       | 11.72         | 11.20   | 127.84     | 111.64    | 124.19  | 8.29    | 68.63   |
| 6   | Bank credit to agriculture (per ha)  | 118.79   | 56.78      | 238.23        | 131.97  | 508.10     | 117.52    | 239.83  | 114.92  | 236.57  |
| <b>Industrial Development</b>                               |  |          |            |               |         |            |           |         |         |         |
| 8   | Secondary employment as percentage of total workforce                          | 1.01     | 1.91       | 2.80          | 1.70    | 19.29      | 13.78     | 8.66    | 1.68    | 9.66    |
| 9   | Ratio of non-household industry employment to total industry employment (1991) | 15.82    | 45.45      | 19.14         | 50.45   | 50.64      | 17.92     | 30.76   | 69.37   | 39.78   |
| 10  | Bank credit to small scale industries (Rs. per capita) 1999                    | 74.73    | 148.14     | 243.95        | 236.49  | 289.21     | 287.58    | 195.83  | 316.80  | 228.70  |
| 11  | Bank credit to industry (Rs. per capita) 1992                                  | 98.68    | 75.52      | 127.98        | 199.97  | 1161.08    | 135.66    | 83.90   | 149.79  | 132.79  |
| <b>Urbanization</b>   |  |          |            |               |         |            |           |         |         |         |
| 14  | Percentage of urban to total population  | 0.00     | 0.00       | 0.00          | 12.64   | 42.29      | 35.87     | 36.05   | 0.00    | 39.74   |
| <b>Tertiary development</b>                                 |  |          |            |               |         |            |           |         |         |         |
| 15  | Tertiary employment as percentage of total workforce (1991)                    | 8.34     | 9.85       | 16.67         | 18.32   | 33.99      | 14.14     | 13.56   | 21.16   | 20.34   |
| <b>Infrastructural Development</b>                          |  |          |            |               |         |            |           |         |         |         |
| 7   | Percentage of villages electrified (As on 31.3.2003)                           | 94.79    | 89.18      | 77.89         | 97.26   | 100.00     | 100.00    | 100.00  | 95.95   | 91.94   |
| 17  | Road density (length per sq. Km.)  | 24.73    | 22.77      | 21.23         | 19.32   | 123.31     | 79.25     | 145.96  | 24.47   | 32.12   |
| 19  | Number of bank branches per lakh population (1999)                             | 3.43     | 4.48       | 3.94          | 4.07    | 6.12       | 3.89      | 2.73    | 2.84    | 4.40    |
| <b>Bank finance</b>   |  |          |            |               |         |            |           |         |         |         |
| 22  | Credit Deposit Ratio   | 76.52    | 124.85     | 87.22         | 83.18   | 88.74      | 197.33    | 229.27  | 146.59  | 44.20   |
| <b>Educational Development</b>                              |  |          |            |               |         |            |           |         |         |         |
| 23  | Total literacy percentage (2001)   | 59.80    | 59.20      | 70.60         | 56.20   | 78.50      | 67.60     | 66.40   | 73.31   | 70.50   |
| 24  | Female literacy percentage   | 51.20    | 49.00      | 63.10         | 48.00   | 69.27      | 55.70     | 52.50   | 65.40   | 60.50   |
| 25  | Percentage of Gross Enrolment in Primary Schools                               | 141.46   | 121.38     | 87.03         | 122.44  | 114.55     | 113.02    | 97.86   | 107.73  | 110.79  |
| 26  | Percentage of Gross Enrolment in Middle Schools                                | 92.09    | 45.28      | 57.93         | 42.05   | 101.99     | 96.43     | 97.11   | 51.06   | 85.64   |
| 27  | Percentage of Gross Enrolment in Senior Secondary Schools                      | 54.87    | 28.72      | 41.48         | 32.95   | 77.63      | 72.16     | 66.41   | 37.15   | 61.51   |

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There are a few important points that need to be made here with reference to the district level profiling. The population in Manipur is concentrated in the more developed areas and highly dispersed in low-density backward hill settlements. This gives a false upward bias to all per capita indicators for the hill areas. At the same time, it is fairly meaningless to use per unit area indicators when vast stretches are simply uninhabited. Availability of comparable cross-sectional data is another formidable problem. For an exercise of this nature to be reliable, a sufficiently large number of variables are required for each aspect. This was not possible.

Therefore, a great deal of caution has to be exercised while interpreting the results or using them for more detailed policy exercise. In all data for twenty-one indicators have been drawn upon for gauging district-wise levels of development. It has not been possible to get all these data for the same common year.

In order to get some meaningful picture from the raw data for these indicators one can adopt alternative procedures. The first is the simple indices method in which the development of any district in terms of a specific indicator is judged in relation to the average level of development of the state as a whole in terms of that indicator.

Once indices of this type have been obtained for each indicator, one can then compare the relative level of development of any district in terms of different indicators. Moreover, since these indices possess the attribute of comparability among themselves they can be aggregated to derive the average level of development of each district in terms of all the indicators taken together.

| Name of Sectoral Development Index | Senapati | Tamenglong | Churachandpur | Chandel | Imphal (U) | Bishnupur | Thoubal | Ukhrul | Manipur | CV     |
|------------------------------------|----------|------------|---------------|---------|------------|-----------|---------|--------|---------|--------|
| Agricultural Development           | 103.06   | 66.56      | 63.79         | 60.93   | 140.26     | 160.18    | 111.60  | 60.55  | 100.00  | 40.90  |
| Rank                               | 4        | 5          | 6             | 7       | 2          | 1         | 3       | 8      |         | 5      |
| Industrial Development             | 39.29    | 63.93      | 70.04         | 99.60   | 331.95     | 103.92    | 78.94   | 110.78 | 100.00  | 43.53  |
| Rank                               | 8        | 7          | 6             | 4       | 1          | 3         | 5       | 2      |         | 6      |
| Urbanization                       | 0.00     | 0.00       | 0.00          | 51.05   | 176.34     | 149.01    | 150.05  | 0.00   | 100.00  | 120.17 |
| Rank                               | 5        | 5          | 5             | 4       | 1          | 3         | 2       | 5      |         | 1      |
| Tertiary development               | 41.00    | 48.44      | 81.93         | 90.07   | 167.09     | 69.52     | 66.65   | 103.99 | 100.00  | 47.35  |
| Rank                               | 8        | 7          | 4             | 3       | 1          | 5         | 6       | 2      |         | 2      |
| Infrastructural Development        | 85.76    | 90.06      | 80.18         | 86.30   | 210.72     | 148.04    | 208.51  | 81.79  | 100.00  | 46.23  |
| Rank                               | 6        | 4          | 8             | 5       | 1          | 3         | 2       | 7      |         | 3      |
| Bank finance                       | 173.13   | 282.46     | 197.34        | 188.18  | 200.78     | 446.46    | 518.70  | 331.65 | 100.00  | 44.62  |
| Rank                               | 8        | 4          | 6             | 7       | 5          | 2         | 1       | 3      |         | 4      |
| Educational Development            | 94.29    | 75.25      | 85.99         | 75.57   | 115.74     | 107.64    | 100.20  | 84.22  | 100.00  | 15.99  |
| Rank                               | 4        | 8          | 5             | 7       | 1          | 2         | 3       | 6      |         | 7      |
| Composite Index                    | 76.65    | 89.53      | 82.75         | 93.10   | 191.84     | 169.25    | 176.38  | 110.43 | 100.00  |        |
| Rank                               | 8        | 6          | 7             | 5       | 1          | 3         | 2       | 4      |         |        |

However, this is not accurate when some indicators have high variance. In order to get over this problem one can make use of Z scores which standardize the variables not only with regard to the average state level values of different indicators but also in terms of the standard deviation of different indicators.

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| Table 1.10: Z Score of Different Development Indicators                        |          |            |               |         |            |           |         |        |
|--|----------|------------|---------------|---------|------------|-----------|---------|--------|
| Indicators   | Senapati | Tamenglong | Churachandpur | Chandel | Imphal (U) | Bishnupur | Thoubal | Ukhrul |
| <b>Agricultural Development</b>  |          |            |               |         |            |           |         |        |
| Rice yield per hectare (kg/hectare)  | -0.19    | -0.84      | -0.16         | -0.97   | 2.23       | 0.43      | -0.14   | -0.36  |
| Cropping intensity   | -0.36    | -0.84      | -1.08         | -0.32   | -0.46      | 0.34      | 2.03    | 0.68   |
| Rice Irrigated area as % of Area under Rice                                    | 1.12     | -0.45      | -0.68         | -0.56   | -0.60      | 1.98      | -0.13   | -0.68  |
| Average size of operational holding (ha)                                       | -0.65    | 2.13       | -0.97         | 0.55    | -0.43      | 0.15      | -0.78   | -0.00  |
| Fertilizer consumption (Kg./ha)  | -0.70    | -0.75      | -0.70         | -0.71   | 1.32       | 1.04      | 1.26    | -0.76  |
| Bank credit to agriculture (per ha)  | -0.50    | -0.94      | 0.33          | -0.41   | 2.22       | -0.51     | 0.34    | -0.53  |
| <b>Industrial Development</b>  |          |            |               |         |            |           |         |        |
| Secondary employment as percentage of total workforce                          | -0.78    | -0.64      | -0.52         | -0.68   | 1.88       | 1.08      | 0.33    | -0.68  |
| Ratio of non-household industry employment to total industry employment (1991) | -1.11    | 0.41       | -0.94         | 0.67    | 0.68       | -1.00     | -0.34   | 1.64   |
| Bank credit to small scale industries (Rs. per capita) 1999                    | -1.84    | -0.93      | 0.24          | 0.15    | 0.80       | 0.78      | -0.35   | 1.14   |
| Bank credit to industry (Rs. per capita) 1992                                  | -0.42    | -0.48      | -0.34         | -0.15   | 2.46       | -0.32     | -0.46   | -0.28  |
| <b>Urbanization</b>  |          |            |               |         |            |           |         |        |
| Percentage of urban to total population  | -0.84    | -0.84      | -0.84         | -0.17   | 1.39       | 1.05      | 1.06    | -0.84  |
| <b>Tertiary development</b>  |          |            |               |         |            |           |         |        |
| Tertiary employment as percentage of total workforce (1991)                    | -1.08    | -0.89      | -0.04         | 0.16    | 2.11       | -0.36     | -0.43   | 0.52   |
| <b>Infrastructural Development</b>   |          |            |               |         |            |           |         |        |
| Percentage of villages electrified   | 0.05     | -0.68      | -2.17         | 0.38    | 0.74       | 0.74      | 0.74    | 0.21   |
| Road density (length per sq. Km.)  | -0.64    | -0.67      | -0.70         | -0.74   | 1.27       | 0.42      | 1.71    | -0.64  |
| Number of bank branches per lakh population (1999)                             | -0.47    | 0.51       | 0.00          | 0.12    | 2.04       | -0.04     | -1.13   | -1.03  |
| <b>Bank finance</b>  |          |            |               |         |            |           |         |        |
| Credit Deposit Ratio   | -0.91    | -0.08      | -0.73         | -0.80   | -0.70      | 1.18      | 1.74    | 0.30   |
| <b>Educational Development</b>   |          |            |               |         |            |           |         |        |
| Total literacy percentage  | -0.87    | -0.94      | 0.54          | -1.34   | 1.57       | 0.15      | -0.01   | 0.89   |
| Female literacy percentage   | -0.69    | -0.96      | 0.78          | -1.08   | 1.54       | -0.13     | -0.53   | 1.07   |
| Age-wise percentage of Enrolment Class I-V Total                               | 1.72     | 0.50       | -1.59         | 0.56    | 0.08       | -0.01     | -0.93   | -0.33  |
| Age-wise percentage of Enrolment Class VI-VIII Total                           | 0.73     | -1.06      | -0.58         | -1.19   | 1.11       | 0.90      | 0.92    | -0.84  |
| Age-wise percentage of Enrolment Class IX-X Total                              | 0.18     | -1.20      | -0.52         | -0.97   | 1.38       | 1.09      | 0.79    | -0.75  |

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| Table 1.11: Weighted value of Z value  |        |          |            |               |         |            |           |         |        |
|--|--------|----------|------------|---------------|---------|------------|-----------|---------|--------|
| Indicators   | Weight | Senapati | Tamenglong | Churachandpur | Chandel | Imphal (U) | Bishnupur | Thoubal | Ukhrul |
| <b>Agricultural Development</b>  |        |          |            |               |         |            |           |         |        |
| Rice yield per hectare (kg/hectare)  | 3.0    | -0.58    | -2.51      | -0.49         | -2.90   | 6.69       | 1.30      | -0.43   | -1.07  |
| Cropping intensity   | 6.0    | -2.15    | -5.02      | -6.46         | -1.91   | -2.76      | 2.05      | 12.19   | 4.06   |
| Rice Irrigated area as % of Area under Rice                                    | 6.0    | 6.73     | -2.70      | -4.10         | -3.36   | -3.58      | 11.88     | -0.78   | -4.10  |
| Average size of operational holding (ha)                                       | 2      | -1.37    | 4.25       | -1.92         | 1.17    | -0.86      | 0.30      | -1.57   | 0.00   |
| Fertilizer consumption (Kg./ha)  | 6.0    | -4.18    | -4.50      | -4.19         | -4.24   | 7.91       | 6.22      | 7.53    | -4.55  |
| Bank credit to agriculture (per ha)  | 2.0    | -1.01    | -1.87      | 0.66          | -0.82   | 4.44       | -1.02     | 0.69    | -1.06  |
| <b>Industrial Development</b>  |        |          |            |               |         |            |           |         |        |
| Secondary employment as percentage of total workforce                          | 7.0    | -5.43    | -4.52      | -3.61         | -4.73   | 13.14      | 7.55      | 2.34    | -4.75  |
| Ratio of non-household industry employment to total industry employment (1991) | 1.0    | -1.11    | 0.41       | -0.94         | 0.67    | 0.68       | -1.00     | -0.34   | 1.64   |
| Bank credit to small scale industries (Rs. per capita) 1999                    | 1.0    | -1.84    | -0.93      | 0.24          | 0.15    | 0.80       | 0.78      | -0.35   | 1.14   |
| Bank credit to industry (Rs. per capita) 1992                                  | 1.0    | -4.2     | -4.8       | -3.4          | -1.5    | 2.46       | -3.2      | -4.6    | -2.8   |
| <b>Urbanization</b>  |        |          |            |               |         |            |           |         |        |
| Percentage of urban to total population  | 5.0    | -4.18    | -4.18      | -4.18         | -0.85   | 6.96       | 5.27      | 5.32    | -4.18  |
| <b>Tertiary development</b>  |        |          |            |               |         |            |           |         |        |
| Tertiary employment as percentage of total workforce (1991)                    | 10.0   | -10.76   | -8.88      | -0.47         | 1.63    | 21.09      | -3.56     | -4.28   | 5.16   |
| <b>Infrastructural Development</b>   |        |          |            |               |         |            |           |         |        |
| Percentage of villages electrified   | 10.0   | 0.53     | -6.84      | -21.69        | 3.78    | 7.39       | 7.39      | 7.39    | 2.06   |
| Road density (length per sq. Km.)  | 10.0   | -6.35    | -6.73      | -7.03         | -7.40   | 12.68      | 4.17      | 17.06   | -6.40  |
| Number of bank branches per lakh population (1999)                             | 5.0    | -2.37    | 2.54       | 0.01          | 0.62    | 10.27      | -0.22     | -5.65   | -5.13  |
| <b>Bank finance</b>  |        |          |            |               |         |            |           |         |        |
| Credit Deposit Ratio   | 10.0   | -9.14    | -0.76      | -7.28         | -7.98   | -7.02      | 11.81     | 17.35   | 3.01   |
| <b>Educational Development</b>   |        |          |            |               |         |            |           |         |        |
| Total literacy percentage  | 4.5    | -3.90    | -4.25      | 2.43          | -6.07   | 7.06       | 0.67      | -0.03   | 4.02   |
| Female literacy percentage   | 4.5    | -3.70    | -4.32      | 3.52          | -4.88   | 6.95       | -0.60     | -2.37   | 4.80   |
| Agewise percentage of Enrolment Class I-V Total                                | 2.0    | 3.43     | 0.99       | -3.17         | 1.12    | 0.17       | -0.02     | -1.86   | -0.66  |
| Agewise percentage of Enrolment Class VI-VIII Total                            | 2.0    | 1.46     | -2.12      | -1.15         | -2.37   | 2.22       | 1.80      | 1.85    | -1.68  |



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|   |     |        |        |        |        |       |       |       |        |
|---|-----|--------|--------|--------|--------|-------|-------|-------|--------|
| Age-wise percentage of Enrolment Class IX-X Total | 2.0 | 0.36   | -2.40  | -1.05  | -1.95  | 2.77  | 2.19  | 1.58  | -1.51  |
| Total   | 100 | -53.13 | -53.46 | -58.96 | -37.65 | 98.81 | 61.56 | 57.95 | -14.12 |
| District Rank                                     |     | 6      | 7      | 8      | 5      | 1     | 2     | 3     | 4      |

The high variability of indicators across districts, prompted us to standardize the indicators in terms of Z scores rather than simple indices. The values of Z- scores for all the twenty-one indicators are given in Table 1.10.

The next step is to derive composite indices of sectoral and overall development. For this purpose the simplest approach is to consider all indicators on the same footing and then deriving simple arithmetic mean of Z scores within each sector and in the state economy as a whole. However, the limitation of this procedure is that it considers all indicators to be of the same importance, which may not be correct from the developmental angle. Thus a weighted average of Z scores can be taken to be superior to the simple unweighted one. For assigning weights to the different indicators, two broad approaches are possible. One is to derive mathematical weights on the basis of well-defined statistical objectives with the help of certain procedures like the principal component analysis method. While there is a clear logic behind these statistical objectives and procedures which attain these objectives, they do not always coincide with developmental perspectives. In view of this we have used purposive weights.

The procedure which has been used here for deriving composite indices is a two-stage one. At the first stage a separate weighted composite index has been derived for each of the seven sectoral groups. At the second stage, these seven sectoral indices have been composited by deriving their mean using the assigned sectoral weights. This procedure has the advantage of enabling one to assess the sectors in which different districts possess strengths and their weak spots for which corrective policy measures may be suggested.

On the basis of this weighting scheme, based on judgment, the weights assigned to each indicator are given in the second column of table 1.11.

In case of agricultural development, the three most advanced districts are Thoubal, Imphal and Bishnupur while the least developed are Tamenglong and Churachandpur. In case of industrial development, the most developed are Imphal and Bishnupur, while the least developed are Senapati and Tamenglong. In urbanization, which is very low in the state in any case, Imphal and Thoubal are the most urbanized while Senapati, Tamenglong and Churachandpur are almost entirely rural based.

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| Table 1.12: Rank of Different District (Based on weighted average Z value ) |          |            |               |         |            |           |         |        |
|---|----------|------------|---------------|---------|------------|-----------|---------|--------|
| Industry  | Senapati | Tamenglong | Churachandpur | Chandel | Imphal (U) | Bishnupur | Thoubal | Ukhrul |
| Agricultural Development  | 4        | 7          | 8             | 6       | 3          | 1         | 2       | 5      |
| Industrial Development  | 8        | 7          | 6             | 5       | 1          | 2         | 3       | 4      |
| Urbanization  | 5        | 5          | 5             | 4       | 1          | 3         | 2       | 5      |
| Tertiary development  | 8        | 7          | 4             | 3       | 1          | 5         | 6       | 2      |
| Infrastructural Development   | 6        | 7          | 8             | 4       | 1          | 3         | 2       | 5      |
| Bank finance  | 8        | 4          | 6             | 7       | 5          | 2         | 1       | 3      |
| Educational Development   | 6        | 7          | 3             | 8       | 1          | 2         | 4       | 5      |

## 1.7 TOWARDS A DISTRICT DEVELOPMENT POLICY FOR MANIPUR

### (A) Variability of District Level Development

It is imperative to minimise wide variations in the level of development within Manipur. Complete uniformity of course, is not possible. The first step is to identify the segments in which disparities are relatively wide and those where they are within reasonable limits. For this purpose the last two columns of Table 1.9 give co-efficient of variation of sectoral indices across districts of each of the seven sectors into which all the indicators of development have been compartmentalized and their.

A crucial segment, which reveals relatively high disparity, is agricultural development. Although rice cultivation is constrained by geographical factors, there is considerable scope for technical intervention in terrace cultivation and upgrading jhum. The same is true for the development of horticulture, forestry and forestry products, poultry farming and allied activities. This would spur the growth of agro-based micro and small industry and help to bring down development disparities. Industrial disparity appears to be fairly low in terms of the co-efficient of variation. But that is primarily a reflection of all round low level of development of industry in Manipur.

Disparity is fairly low in the area of educational development. This shows the success of social policy. Of course, quantitative figures of literacy and enrolment often hide substantial gaps in the quality of instruction, teachers and educational infrastructure which need to be plugged in order to ensure quality and uniformity.

### (B) Relationship of Individual Indicators and Policy Variables to Development

Finally, we may try to identify the activities conducive to overall and sectoral districtwise development of Manipur. For this purpose, we may look at the relationship of activities represented by the 24 indicators with the overall composite index. These correlations are given in column (3) of Table 1.13. (These do not indicate the direction of causation) Column (2) gives correlations of individual indicators with the sectoral composite index of the group to which a particular indicator belongs.

Agricultural development is clearly crucial. If we look at column (3) of Table 1.13, the indicator most highly correlated with overall development is fertilizer consumption. The second highest correlation co-efficient is with cropping intensity. Although this does show the significance of land-use intensity and multiple cropping in promoting development, productivity by itself is not a policy variable since it is an outcome of other developments for example, irrigation, fertilizer consumption, agricultural credit and spread in the knowledge about new agricultural techniques. Among these, bank credit to agriculture is a policy variable. It does appear among the indicators included in Table 1.11 and it also shows a high correlation of +0.5 with the overall composite index of development.

Within the industrial development group, the correlation of the composite index of industrial development with the overall Index is quite high. The highest correlation with the overall Index is that of secondary employment percentage (+0.85), which is an indicator of development but by itself it is not amenable to policy control. Among the components of the

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industrial development group included here, the two policy variables are bank credit to industry in general and to small industry in particular. This does point to the key role of small industry in promoting district level development within Manipur. Finance to small and micro enterprises is therefore critical.

The index of urbanisation bears the highest correlation to overall district level development in Manipur (+0.94). But it is an indicator of overall development of districts rather than a policy variable. The same comment applies to tertiary employment percentage. However, it may be noted that tertiary employment bears a much lower correlation with overall economic development (+0.40) than secondary employment (+0.85), unlike the trend observed in many other parts of the country.

This brings us to an important segment, namely, infrastructural development. The correlation of infrastructural group index with overall development is very high (+.91). The highest correlation is shown by road density (+.92). The variable “percentage of villages electrified”, which is used as a surrogate for the input of electric power, shows a high positive correlation with overall index of development and composite index of development for the infrastructural segment as a whole. Bank finance, also reveals a high degree of correlation with overall development.

| Table 1.13: Correlation of Individual District level development indicators   |   |  |
|---|---|--|
| Description of Indicators   | Correlation with sectoral composite Indices (r1*) | Correlation with overall composite Indices (r2*) |
| <b>Agricultural Development</b>   |   |  |
| Rice yield per hectare (kg/hectare)   | 0.73  | 0.61   |
| Cropping intensity  | 0.28  | 0.65   |
| Rice Irrigated area as % of Area under Rice   | 0.68  | 0.25   |
| Average size of operational holding (ha)  | -0.28   | -0.24  |
| Fertilizer consumption (Kg./ha)   | 0.86  | 0.96   |
| Bank credit to agriculture (per ha)   | 0.43  | 0.50   |
| Average Sectoral Index  | 1.00  | 0.78   |
| <b>Industrial Development</b>   |   |  |
| Secondary employment as percentage of total workforce   | 0.70  | 0.85   |
| Ratio of non-household industry employment to total industry employment (1991)  | 0.58  | 0.00   |
| Bank credit to small scale industries (Rs. per capita) 1999   | 0.86  | 0.47   |
| Bank credit to industry (Rs. per capita) 1992   | 0.86  | 0.56   |
| Average Sectoral Index  | 1.00  | 0.60   |
| <b>Urbanization</b>   |   |  |
| Percentage of urban to total population   | 1.00  | 0.94   |
| <b>Tertiary development</b>   |   |  |
| Tertiary employment as percentage of total workforce (1991)   | 1.00  | 0.40   |
| <b>Infrastructural Development</b>  |   |  |
| Percentage of villages electrified  | 0.60  | 0.69   |
| Road density (length per sq. Km.)   | 0.99  | 0.92   |
| Number of bank branches per lakh population (1999)  | 0.30  | 0.13   |
| Average Sectoral Index  | 1.00  | 0.91   |
| <b>Bank finance</b>   |   |  |
| Credit Deposit Ratio  | 1.00  | 0.71   |
| <b>Educational Development</b>  |   |  |
| Total literacy percentage   | 0.56  | 0.60   |
| Female literacy percentage  | 0.55  | 0.52   |
| Agewise percentage of Enrolment Class I-V Total   | -0.07   | -0.31  |
| Agewise percentage of Enrolment Class VI-VIII Total   | 0.94  | 0.70   |
| Agewise percentage of Enrolment Class IX-X Total  | 0.99  | 0.81   |
| Average Sectoral Index  | 1.00  | 0.79   |
| <b>Overall sectoral index</b>   |   | 1.00   |
| *r1 Indicates correlations of sectoral composite Indices with individual indicators belonging to respective sectoral categories |   |  |
| *r2 Indicates correlations of the overall composite Index with Individual indicators  |   |  |

## 1.8 THE PATTERN OF DISTRICT LEVEL PER CAPITA INCOME AND COMPOSITE INDICES

To conclude, we may look at the pattern of district level per capita income for 2000-01 and see how it stands in relation to the indices of development. Table 1.14 gives the per capita income of district for 2000-01 at current prices. The district coming at the top is Imphal, Bishnupur standing only at the 2<sup>nd</sup> rank, followed by Ukhrul. Bishnupur and Imphal are located in the valley portion of Manipur. Ukhrul is a hilly district, which gets a very high per- capita income ranking since its population density is very low. This pushes up its per capita income estimate above that of Thoubal, which is a valley district and quite well developed. At the other extreme of the developmental ladder are Senapati and Thoubal with the other districts arrayed in between.

| Districts     | Per Capita Income in 2001<br>at Current Prices | Rank |
|---------------|--|------|
| Senapati      | 7708   | 8    |
| Tamenglong    | 10648  | 6    |
| Churachandpur | 11691  | 4    |
| Chandel       | 10716  | 5    |
| Imphal (U)    | 14897  | 2    |
| Bishnupur     | 15118  | 1    |
| Thoubal       | 10586  | 7    |
| Ukhrul        | 14103  | 3    |

Source: DES