CHAPTER - V

OCCUPATIONAL PATTERN AND FUNCTIONAL NATURE OF THE URBAN CENTRES OF THE REGION

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URBAN CENTRES OF THE REGION

It is not only the morphology of a city which
is of real interest to the geographers but also its
past and present populations as they adhere to certain
social and economic institutions, developing distinctive
demographic characteristics. The contrasting
characteristics of urban and rural populations have
drawn the attention of geographers for long. However,
studies concerned with 'occupational pattern' especially
in India, have attained a greater significance only in
recent years. Such studies can reveal the relationship


2. Gozal, G.S. : The Occupational Structure of India's
   rural population - a regional analysis.
   The National Geographical Journal of

Kayastha, S.L. : Occupational Structural of the Himalayan
   Basin, the National Geographical Journal

Hullar, S.I., Patil, S.R. &
Raddy, N.B.K. : Spatial analysis of Occupational Pattern
   in Mysore State, the Karnataka University
   Journal (Science), 1969, 14, pp. 142-160.

Raddy, N.B.K. : Urban evolution, growth pattern and
   Urbanization Trends in the Krishna and
   Godavari Deltas, 1970, National
   Geographical Journal of India, 16,
   pp. 270-287.
between various occupations and the resultant spatial interaction within a regional framework.

An economically productive pursuit is conceived here as an occupation and as such there can be many occupations. However, to gain insight into the occupational pattern of a population, three broad categories of occupations namely the primary, secondary and tertiary are recognised. The operational definition of the term 'Occupational pattern' or 'occupational structure' (the terms are used as synonym) is taken as the relationship pattern of the above mentioned three major occupational components of the working population, as it forms the core of a city's economic system. It is rather difficult to segregate the aspects of 'structure' and 'function' as they are intimately related to each other.

Although large scale manufacturing is fundamental to modern urban growth, this occupation may not necessarily be found in particular cities.\(^3\) This statement is most true in the case of the Indian urban situation. The proportion of working population employed in manufacturing

\(^3\) Johnson, 1972 p. 65.
varies to a considerable extent from one urban centre to another. So also the case with other occupations. Hence the study of occupational structure of urban centres in a region is of a considerable geographical significance.

As per argument put forward by Colin Clark there is a close relationship between development of an economy on the one hand, and occupational structure on the other and economic progress is generally associated with certain distinct, necessary and predictable changes in occupational structure. He writes: "A high average level of real income per head is always associated with a high proportion of the working population engaged in tertiary activities . . . . . low real income per head is always associated with a low proportion of the working population engaged in tertiary production and a high percentage in primary production" 4. A.G.B. Fisher is also of the same view as he asserts. "We may say that in every progressive economy there has been a steady shift of employment and investment from the essential 'primary activities' . . . . to secondary activities

of all kinds and to a still greater extent into
tertiary production". The same can be testified
with an empirical evidence of per capita income in
advanced countries like the U.S.A., the U.K.,
Australia, Canada, West Germany and France and also
in under-developed countries like India.

The purpose behind this analysis is to find out
whether the growth of the population of urban centres
of the North East India has been productive or non-
productive. The main point that we intend to bring
out is whether or not the demographic change in the
towns has been accompanied with a sufficient diversi-
fication of occupation. In other words, we would like
to see if the working population of the urban centres
of the region is engaged mainly in primary or secondary
or in tertiary industry. Reissman rightly remarks
that Washington, heavily populated with clerical and
professional employees, offers services and activities
attuned to the tastes of educated people with fixed
income. Similarly, a resort city needs to provide
those services that can attract tourists and can induce

5. Economic Progress and social Security, 1945,
pp. 5–6 quoted by N.A. Khan in problems of growth
of underdeveloped Economy, p. 121.

6. David Reissman, The Urban Process, the Free Press
them to spend their money. In other words, cities have to steady in whatever business gives them a spatial character.

The Census of India has always been surveying the occupational pattern of the people. But it has its own method of doing so. For instance, from 1901 to 1921, the census method of studying the occupational pattern was to divide the population into actual workers and dependents. The 1951 census, however, introduced a new concept of self sufficiency and divided the population into two categories—self-supporting earning dependent and non-earning dependents. A major change was effected in 1961 when the population was divided into two groups namely 'workers' and 'non-workers'. The definition of 'workers' and non-workers' given in 1961 was adopted with some modifications in 1971 also. But the definition of workers adopted in 1961 census led to many persons to be included in the category of workers who were not so treated in 1971 census. A person was categorised as a 'worker' in 1961 even though his contribution was marginal. But according to 1971 census 'a worker is a person whose main activity is participation in any economically productive work by his physical and mental activity'.

Further, not only actual work but effective supervision and direction of work also was included in the category of work. A man or a woman engaged primarily in household duties such as household duties or a boy or a girl who is primarily a student attending institutions, even if such a person helps in the family economic activity but not as a full time workers, he or she should not be treated as a worker for the main activity. On the other hand, if a person is primarily engaged in some economic activity, but at the same time does not attend to serve household chores or attends a night school etc., he or she should be treated basically as a worker for the main activity and categorised accordingly.  

The census of 1981 classified 'workers' into two categories i.e., main workers and marginal workers. The term worker is used for a person whose main activity is participation in any economically productive work by his physical or mental activity. Work involves not only actual work but also effective supervision and direction of work.

Main workers were those who also worked for the major part of the year preceding the date of enumeration i.e., those who were engaged in any economically

8. Ibid, p. IV.
productive activity for 183 days or six months or more during the year. Marginal workers were those who worked any time in the year preceding the enumeration but did not work for a major part of the year i.e., those who worked for less than 183 days or six months in a year.

The present study is expected to reveal the occupational structure of the urban centres of the North-Eastern India.

**SOURCE OF DATA AND MATERIALS:**

The present study is based on the working population as defined by the Census of India, 1991. As mentioned earlier, for the National Classification of Industrial Categories, the Government of India has divided the population into two major groups— the workers and non-workers. The workers are further sub-divided into the following nine categories.

I. Cultivators,

II. Agricultural Labourers,

III. Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and allied activities,
IV. Mining and Quarrying,

V. Manufacturing, Processing, Servicing and Repairs -
   a) in household industry,
   b) in other than household industry,

VI. Construction,

VII. Trade and Commerce,

VIII. Transport, Storage and Communications; and

XI. Other Services.

The concepts adopted in 1991 census are described below to facilitate ready reference.

**Work:**

Work is defined as participation in any economically productive activity. Such participation may be physical or mental in nature. Work involves not only actual work but also effective supervision and direction of work. It also includes unpaid work as favour or in family enterprise.

**Reference period:**

The reference period is the one year preceding the date of enumeration. Certain types of work such as agriculture, household industry like gur making, etc.,
are carried on either throughout the year or only
during certain seasons or parts of the year, depending
on the local circumstances. In such cases the broad
time span of the agricultural seasons preceding the
enumeration is taken into account.

Main workers:

Those who had worked for the major part of the
year are termed as main workers. By major part of the
year is meant 6 months (183 days) or more.

Marginal workers:

Those who had not worked for the major part of
the year i.e. those who had worked for less than six
months (183 days) in the year are termed as marginal
workers.

OCCUPATIONAL STRUCTURE:

Table 5.1 reveals the general occupational
structures of urban population of the North East India
by industrial categories.
### Table 5.1

**Occupational Structure of Urban Population of North East India, 1991**

<table>
<thead>
<tr>
<th>Industrial Category</th>
<th>Persons</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Cultivators</td>
<td>1,354,624</td>
<td>91,124</td>
<td>44,338</td>
</tr>
<tr>
<td>II. Agricultural Labourers</td>
<td>42,597</td>
<td>30,025</td>
<td>12,572</td>
</tr>
<tr>
<td>III. Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and allied activities.</td>
<td>37,107</td>
<td>30,615</td>
<td>6,493</td>
</tr>
<tr>
<td>IV. Mining and Quarrying.</td>
<td>10,959</td>
<td>10,316</td>
<td>643</td>
</tr>
<tr>
<td>V. Manufacturing, Processing, Servicing and Repairs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) in household industry</td>
<td>28,116</td>
<td>12,666</td>
<td>15,500</td>
</tr>
<tr>
<td>b) Other than household industry</td>
<td>1,28,449</td>
<td>1,19,505</td>
<td>8,943</td>
</tr>
<tr>
<td>VI. Construction</td>
<td>72,286</td>
<td>68,807</td>
<td>3,479</td>
</tr>
<tr>
<td>VII. Trade &amp; Commerce</td>
<td>3,05,825</td>
<td>2,80,343</td>
<td>25,482</td>
</tr>
<tr>
<td>VIII. Transport, Storare &amp; Communications.</td>
<td>1,14,621</td>
<td>1,10,765</td>
<td>3,856</td>
</tr>
<tr>
<td>IX. Other Services</td>
<td>4,86,600</td>
<td>3,77,730</td>
<td>1,08,870</td>
</tr>
<tr>
<td><strong>Total main workers (I-IX)</strong></td>
<td>13,62,022</td>
<td>11,31,896</td>
<td>2,30,176</td>
</tr>
</tbody>
</table>

Source: Computed by the Author from the Census figures, 1991.
From the above table it is evident that improvements in netting of female workforce has been noticed especially in industrial categories I, III, V and IX i.e. in cultivation; livestock; forestry, fishing, hunting and plantations, orchards and allied activities; manufacturing, processing, servicing and repairs (both household and non household), and other services. The following analysis will give a clear picture of the situation. (Fig. 2.2)

i & ii Agriculture:

The rural setting in the urban centres appears to be strong as evidenced by the significant proportions of agricultural populations* among most of the urban centres of the region. This is because of the fact that a considerable amount of area of the towns remain under cultivation or many of the people might live in the town looking after their agricultural lands which are situated outside the urban limits. Such a situation is more pronounced among the medium and small towns of the region.

Among the states of the region, Manipur has the maximum percentage of agricultural populations or urban centres to their respective total main workers (40.48%)

* Includes the two categories of "cultivators" and "agricultural" labourers.
NORTH EASTERN INDIA
URBAN OCCUPATIONAL STRUCTURE-1991

SIZE OF MAIN WORKERS

REFERENCES
Boundary:
International:
State:
Water Bodies:
River:

MAP NO. 2.2
followed by Mizoram (38.68%), Nagaland (11.13%), Tripura (9.46%), Arunachal Pradesh (6.71%), Meghalaya (6.63%) and Assam (5.41%). (Dig. 5.1) The following table figures a clear picture of the situation.

Table - 5.2

PROPORTION OF AGRICULTURAL POPULATIONS TO THE TOTAL MAIN WORKERS OF URBAN CENTRES OF THE N.E. INDIA, 1991

<table>
<thead>
<tr>
<th>States</th>
<th>% of agricultural populations to the total main workers</th>
<th>Other services</th>
<th>Total workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arunachal Pradesh</td>
<td>6.71</td>
<td>93.29</td>
<td>100.00</td>
</tr>
<tr>
<td>2. Assam</td>
<td>5.42</td>
<td>94.58</td>
<td>100.00</td>
</tr>
<tr>
<td>3. Manipur</td>
<td>40.48</td>
<td>59.52</td>
<td>100.00</td>
</tr>
<tr>
<td>4. Meghalaya</td>
<td>6.63</td>
<td>93.37</td>
<td>100.00</td>
</tr>
<tr>
<td>5. Mizoram</td>
<td>38.68</td>
<td>61.32</td>
<td>100.00</td>
</tr>
<tr>
<td>6. Nagaland</td>
<td>11.13</td>
<td>88.87</td>
<td>100.00</td>
</tr>
<tr>
<td>7. Tripura</td>
<td>9.46</td>
<td>90.46</td>
<td>100.00</td>
</tr>
</tbody>
</table>

North East India  16.93  83.06  100.00

Source: Computed by the Author from the Census figures, 1991.
1991
TO THE TOTAL URBAN MAIN WORKERS
PERCENTAGE OF AGRICULTURAL POPULATION
NORTH EASTERN INDIA
It is very clear from the above table that the so-called 'agricultural towns' have not shown any pattern in distribution though they are generally situated along the course of main rivers and road sides. However, one notable feature is that the variation in the functional indices of agriculture is relatively less in Assam, Meghalaya and Arunachal Pradesh than in the case of Manipur, Mizoram and Nagaland. This difference is perhaps due to the rugged topography, scarcity of cultivable land and lack of communications than in the case of Manipur and Mizoram. Even the gently sloping low lands have been treated with caution.

The most interesting aspect of urban settlements in the plains of North East India are invariably concentrated in close proximity of the major rivers and roads which have long been acting as the carrier of commerce and culture of the region under study. Among the agricultural populations, about one third being owner cultivator and the remaining are still agricultural labourers. The above table leads to the conclusion that the region does not have much scope for extensive agriculture in and around the urban centres except Manipur valley and Mizoram.
iii. Livestock etc.

The function of livestock etc., is very weakly represented compared to other functions (Appendix III). However, it is relatively high among the medium sized towns. Assam (3.29%) has the maximum number of urban workers engaged in this industry followed by Nagaland (3.17%). Assam has a large livestock population but the quality is very poor. The poor productivity of cattle is largely due to malnutrition, diseases and inferior breeds.

Generally the livestock, especially cattle of the N.E. region of India suffer from a heavy incidence of diseases such as liver flukes, bovina pleuro, pneumonia, lumpsore, etc. The number of hospitals for supply of vaccines and medicines to fight these epidemics is not adequate.

iv. Mining and Quarrying :

The function of mining and quarrying shows a similar pattern. Very few towns represent this function. The town having the maximum index value for this function is Tripura followed by Assam (Vide Appendix - III).
The mining activity is relatively more concentrated in the area around Makum coal field of Lakhimpur District and the Nazira Coal field of Sibsagar District of Assam, where there are huge deposits of rich coal ore.

The oil bearing strata in the region are concentrated in Digboi, Naharkatiya, Hugrijan, Doom-Dooma, Moran, Rudrasagar, Lakowa, Teok, Geleky and between Jorhat and Golaghat. Digboi - the first known oil field in the country has been producing oil since 1890 from an area of 130 acres, but at present it is nearing depletion. The annual average production from Digboi between 1934 and 1953 was 66,500,000 gallons with a rise or fall of 25,000,000 gallons. The recent oil strike at Naharkatiya followed by discovery of other oil fields mentioned above was put the region prominently on the oil map of the world map. The Naharkatiya Moran fields (Oil India Ltd.) also have natural gas reserves of about 790 billion cu.ft.\(^9\) The estimate of proved and indicated oil resources in this field is 48.87 million tonnes.

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v(a): Manufacturing (Household Industry):

The function of household industry is more dominant for urban dwellers in Manipur compared to the other states of the North East India. Manipur has the maximum percentage of 7.98 followed by Mizoram (1.88%) and Assam (1.45%) respectively. It is also to be noted that this Industry is more concentrated in the small towns compared to the large and medium size towns. It may be due to the social and cultural reasons.

v(b): Manufacturing (Other than Household Industry):

Manufacturing is an important function and is often recognised as a city building activity. The function is better represented by the 'large towns' of the region under study. There is relatively a higher concentration of this function in Assam (12.29%), Tripura (8.01%), Meghalaya (7.36%) and Manipur (6.01%) vide Appendix - III. Large scale manufacturing activity is mainly confined to the eight urban centres of Guwahati (5,84,342), Shillong (2,23,366), Imphal (2,02,839), Agartala (1,57,358), Aizawl (1,55,240),
Dibrugarh (1,25,667), Silchar (1,15,483) and Jorhat (1,12,030). In fact, Guwahati and Dibrugarh are the most important industrial centres of the Assam State. Bokajan too is in the offering as a cement factory centre of the region. There are a large number of Jute mill centres in Assam. Goalpara, Kamrup, Darrang and Nowgong have become important centres of jute cultivation. It has to export practically all its jute to Calcutta. It amounts to nearly one million bales annually. With agricultural and industrial development in the region, the need for jute materials especially gunny bags and hessians will increase. So the Government of Assam has taken steps to set up a jute mill with 300 looms at Silghat in the Nowgong district, but the N.C.A.E.R. is of opinion that Guwahati with better transport facilities, power, raw materials and markets will be the most suitable site for this industry.

The spatial distribution of these 'manufacturing towns' in the region under study reminds us of the influence of geographical factors. Tea, coal, saw-mill and plywood industries, a large railway workshop and many engineering works are located on Lakhimpur district,
Dibrugarh, Tinsukia, Digboi, Makum, Margherita, Namrup, Naharkatiya are the important industrial towns located in a long belt by the side of the railway line. Doom-Dooma and Moran are important centres of the tea industry. With the further development of oil and gas in Naharkatiya, Duliajan and Moran, activity in the region will continue to grow further and further. Darrang district has no other industry except tea. Sibsagar district is very rich in tea industry. Kamrup district is mainly an agricultural region. Nowgong district also contains a number of tea gardens and is rich in agriculture. Hojai, Lanka and Jamunamukh are noted for their rice mills. Cachar district in the Barak Valley is another region of a big concentration of the tea industry.

The other states of Mizoram, Nagaland, Manipur, Tripura and Meghalaya are without any industrial unit worth the name. It is really very unfortunate that even after forty eight years of independence, lack of proper communications still remains the greatest hindrance in the economic development of the North East India in spite of tremendous potentialities.
However, in view of rapid industrialization and urbanization of the region, these 'manufacturing towns' are likely to grow bigger and exercise a greater influence on the small towns around them.

vi. Constructions:

The number of urban centres having construction activity on a dominant scale is very small. So also not much variation is found so far as its percentage of workers is concerned. The construction activity is relatively more dominant in the towns of Arunachal Pradesh (13.18%). The percentage of urban workers on construction is significantly low in Manipur (3.27%), Tripura (3.86%) and Mizoram when compared with the urban centres of Assam (5.66%), Meghalaya (5.73%) and Nagaland (5.54%). A detailed account of this aspect can be seen in Appendix - III.

vii. Trade and Commerce:

The function of trade and commerce being a 'sustaining industry' or 'city serving activity', the number of persons employed in this function is large and as a consequence the variation of the percentage
of workers among the urban centres of the region is very small. However, this function seems to be relatively more important in the urban centres of Assam, Tripura and Meghalaya. This regional variation may be because of the dominance of the agricultural activity among the urban centres of Assam, Tripura and the tea plantation activity of that of the Meghalaya (Appendix - III).

viii. Transport, Storage & Communications:

The number of urban workers for the function of transport is the highest for the large towns and the lowest for the small ones. The maximum number is concentrated in Assam (11.51%), followed by Tripura (8.11%) and the minimum is recorded in Mizoram (2.45%).

Unlike the other functions, the function of transport is significantly important for certain towns and these are mostly the urban centres located on the main railways and roadways of the region. The urban centres of the interior which have relatively less transportation facilities show less percentage of workers. The remotness of the region from the centre and her geographical location are among the reasons why
its economic development including transport has failed to keep pace with the tempo of progress in the rest of India. Difficulty of terrain, a large number of rivers, shortage of labour and inbalance between export and import are some of the major hindrances to the rapid improvement of the transport system. But recently two reasons, one, the prospect of rapid industrialisation and, two, her strategic location, are likely to dictate a more accelerated rate of development in the transport system of North East India.

The Saraighat-rail-cum-road-bridge over the Brahmaputra, the construction of a broad gauge line from Siliguri to Jogighopa, rail connection with Tripura and Assam by opening a new railway between Kalkalighat and Dharmanagar in Tripura etc. have increased transport capacity of this region linking with the rest of the country. Four urban centres namely; Guwahati, Dibrugarh, Laming and Silchar have this function in a significant proportion.

ix. Other Services:

The function of other services also has a significant regional variation. The notable feature
is that the proportion of urban workers are high in Arunachal Pradesh (56.58%), Nagaland (54.94%) and Meghalaya (51.73%).

**URBAN WORKING POPULATION**

The progress of urban community directly depends on the quantum of workers and their pattern of occupations. During the decade 1981-91 it is discovered that only 16.32% of the total urban population of the urban centres of the North East India were workers while 83.68% were non-workers.

The workers percentage increased further to only 17.92% in 1991. The general trends of total working population over the towns of the region under study can best be understood by looking at the following table.

**Table - 5.3**

**URBAN WORKING POPULATION OF NORTH EAST INDIA, 1981-91**

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage of urban working population to the total urban population.</th>
<th>1981</th>
<th>1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1. Arunachal Pradesh</td>
<td></td>
<td>11.62</td>
<td>11.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>2. Assam</td>
<td></td>
<td>N.A.*</td>
<td>7.52</td>
</tr>
<tr>
<td>3. Manipur</td>
<td></td>
<td>26.61</td>
<td>27.88</td>
</tr>
<tr>
<td>4. Meghalaya</td>
<td></td>
<td>16.12</td>
<td>17.23</td>
</tr>
<tr>
<td>5. Mizoram</td>
<td></td>
<td>21.88</td>
<td>39.37</td>
</tr>
<tr>
<td>6. Nagaland</td>
<td></td>
<td>10.93</td>
<td>12.09</td>
</tr>
<tr>
<td>7. Tripura</td>
<td></td>
<td>8.73</td>
<td>9.27</td>
</tr>
<tr>
<td>Total (Average)</td>
<td></td>
<td>16.32</td>
<td>17.92</td>
</tr>
</tbody>
</table>


From Table 5.3 it is clear that the percentage of the urban working population to the total urban population has significant regional variations. The notable feature is that the proportions of urban workers are comparatively high in Mizoram and Manipur. (Fig. 5.2) It may also further be noted that the proportion of working population to total population has increased from 16.32% in 1981 to 17.92% in 1991. Perhaps it is due to the increase in the female work participation rate in 1991 census.

* The 1981 census could not be conducted in Assam due to the students' agitation. Hence, further details are not available (NA).
Diagram showing the percentage of urban working population in different regions of North Eastern India for the years 1951-1991. The data for Assam is not available.
When the occupational categories are considered, 'other services' accounts for 43.38% of the total urban population of the region in 1991 as against the corresponding figure of 44.76% in 1981. This is followed by workers in Trade and commerce having 16.80% in 1991 as compared with 14.32% of 1981. The two categories of workers i.e. 'cultivators' and 'agricultural labourers' account for 13.15% and 3.82% of the total population of urban centres of the region in 1991 respectively. (See Appendix - III)

MALE AND FEMALE PARTICIPATION:

The sex-wise breakup of working population indicates that the decline has taken place in both the sexes. For comparative purposes the male and female work participation rates in 1981 and 1991 censuses have been given in the Appendix - IV, V & VIII.

MAIN WORKERS:

A break-up of the occupational structure of the urban centres of the region shows almost the same as reflected in the census 1981 and 1991. Appendix - VI outlines another interesting fact regarding the
proportion of main workers and marginal workers with the percentage of non-workers. It is clear from the analysis of the Appendix - VI/VII that both "total workers" (17.92%) and "main workers" (14.83%) increased in 1991 and 14.45% in 1981. Perhaps it may be due to the reduction of percentages of non-workers from 83.68% in 1981 to 82.08% in 1991.

MARGINAL WORKERS:

The marginal workers of the urban population of the region constitute about 3.67% to total workers of the urban centres. It may be mentioned here that these marginal workers are able to get only occasional employment in the towns and are bound to live in a poor condition. The following table presents a broad picture of the marginal workers in the urban centres of the region in 1981 and 1991.

Table - 5.4

<table>
<thead>
<tr>
<th>States</th>
<th>% to total urban workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1981</td>
</tr>
<tr>
<td>1. Arunachal Pradesh</td>
<td>0.42</td>
</tr>
<tr>
<td>2. Assam</td>
<td>N.A.*</td>
</tr>
</tbody>
</table>

* The 1981 Census could not be conducted in Assam due to the students' agitation.
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Manipur</td>
<td>5.90</td>
<td>7.06</td>
<td></td>
</tr>
<tr>
<td>4. Meghalaya</td>
<td>0.51</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>5. Mizoram</td>
<td>3.43</td>
<td>11.54</td>
<td></td>
</tr>
<tr>
<td>6. Nagaland</td>
<td>0.41</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>7. Tripura</td>
<td>0.48</td>
<td>0.59</td>
<td></td>
</tr>
</tbody>
</table>

**Total (Average)**   
1.85   
3.67

**Source:** Census of India, 1991  
Series - I, India, paper - 2 of 1992  
Final population Totals, pp. 115-122.

The above table makes it clear that during the last one decade, the percentage of marginal workers to the total workers has increased from 1.85 percent in 1981 to 3.67 percent in 1991. (Dig. 5.3)

**NON-WORKING POPULATION**:

The Census of India for the first time in 1961 differentiated between working and non-working groups of population. A detailed study of the livelihood pattern of the population of the urban centres of the region shows the non-productive character of the community. In other words, less than 20% of the total population of the urban centres are actively engaged in economic pursuits.

The following table gives a clear picture of the trends of the non-working population in the urban centres of the region in 1991.
<table>
<thead>
<tr>
<th>State</th>
<th>Total Urban Workers</th>
<th>Males</th>
<th>Females</th>
<th>Total Urban Non-Workers</th>
<th>Males</th>
<th>Females</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arunachal Pradesh</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assam</td>
<td>4.0, 62</td>
<td>34, 69</td>
<td>65, 25</td>
<td>70, 366</td>
<td>5, 65</td>
<td>70, 366</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manipur</td>
<td>1.72, 834</td>
<td>1.03, 223</td>
<td>1.79, 511</td>
<td>1.06, 591</td>
<td>1.72, 834</td>
<td>1.03, 223</td>
<td>1.79, 511</td>
<td>1.06, 591</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>1.46, 998</td>
<td>86, 611</td>
<td>60, 387</td>
<td>1.70, 496</td>
<td>1.46, 998</td>
<td>86, 611</td>
<td>60, 387</td>
<td>1.70, 496</td>
</tr>
<tr>
<td>Mizoram</td>
<td>1.02, 709</td>
<td>19, 131</td>
<td>91, 319</td>
<td>2.99, 881</td>
<td>1.02, 709</td>
<td>19, 131</td>
<td>91, 319</td>
<td>2.99, 881</td>
</tr>
<tr>
<td>Nagaland</td>
<td>1.48, 064</td>
<td>2.77, 519</td>
<td>11, 48</td>
<td>11, 97, 600</td>
<td>1.48, 064</td>
<td>2.77, 519</td>
<td>11, 48</td>
<td>11, 97, 600</td>
</tr>
<tr>
<td>Tripura</td>
<td>1.4, 22, 837</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Computed by the author from the Census Figures, 1991.
From the above figures it is quite clear that the non-productive character of the community is obvious. Out of a total urban population of 43,56,739 persons in 1991, as many as 29,56,122 persons or 82.08% were classified as non-workers. (Tbl. 5.5) The non-workers of the urban population are "full time students" those attending to "household duties", "dependents and infants", "retired persons", "rentires", persons of "Independent means", "beggars", "Vagrants" and inmates of penal which were physically handicapped to be the earning members of a family.

As has already been mentioned, the percentage of young people to the total population of the towns of the region are comparatively high. The percentage of the population within the age-group, 0-15 which is economically dependent upon others is also very high. In addition, a large number of females do not earn their living and are therefore, economically only semi-active or inactive. Thus in the towns of the region, 82.08% of the total population are parasites who thrive on the income of only 17.92% of the working people.
While this is the picture of the urban centres of the region as a whole, the spatial distribution of the non-working population at the regional level, varies widely from one state to another. The maximum number of percentage of non-workers is concentrated in Assam (92.48%) followed by Tripura (90.73%), Arunachal Pradesh (88.05%) and Nagaland (87.91%) (See Appendix - VI).

CLASSIFICATION OF OCCUPATION:

The occupation classification of population generally refers to different branches of activity based on the type of establishment, product made or service rendered. In order to overcome the difficulties in comparing the detailed information in this respect, it is customary to categorise it into three principal occupational groups or sectors for the purpose of analysis - i.e. (a) the primary occupation which is directly dependent on land comprising the cultivators and the agricultural labourers; (b) the secondary group made up of population engaged in different occupations where the common denomination is the production of material goods or the processing of the primary

Percentage of urban workers and non-workers-1991
North Eastern India
occupations and (c) the tertiary sectors that provide various services for the population such as trade and commerce, transport, education, medical etc.

On the basis of the above observations and census records an attempt is being made to group the occupations of towns of the region into the following three broad categories for the convenience of drawing a comparison:

1. **Primary Sector includes** -
   i) Cultivators;
   ii) Agricultural Labourers;
   iii) Livestock, Forests, Fishing, Hunting and Plantations, Orchards and allied activities;
   iv) Mining and Quarrying.

2. **Secondary Sector** -
   v) a) Manufacturing (in household industry);
      b) Manufacturing (other than household industry);
   vi) Constructions.

3. **Tertiary Sector** -
   vii) Trade and Commerce;
   viii) Transport, Storage and Communications;
   ix) Other Services.
The following table figures a clear picture of the situation. (See Appendix - IX/X for details)

**Table 5.6**

TRENDS OF PRIMARY, SECONDARY AND TERTIARY WORKERS OF THE URBAN CENTRES OF THE N.E. INDIA.

<table>
<thead>
<tr>
<th>State</th>
<th>Primary Section</th>
<th>Secondary Section</th>
<th>Tertiary Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arunachal Pradesh</td>
<td>9.26</td>
<td>8.86</td>
<td>27.27</td>
</tr>
<tr>
<td>2. Assam</td>
<td>N.A.</td>
<td>9.78</td>
<td>N.A.</td>
</tr>
<tr>
<td>3. Manipur</td>
<td>38.68</td>
<td>43.09</td>
<td>24.01</td>
</tr>
<tr>
<td>4. Meghalaya</td>
<td>9.86</td>
<td>9.27</td>
<td>17.75</td>
</tr>
<tr>
<td>5. Mizoram</td>
<td>29.62</td>
<td>41.20</td>
<td>13.19</td>
</tr>
<tr>
<td>6. Nagaland</td>
<td>8.10</td>
<td>14.56</td>
<td>14.91</td>
</tr>
<tr>
<td>7. Tripura</td>
<td>9.33</td>
<td>11.23</td>
<td>15.60</td>
</tr>
<tr>
<td>Total (Average)</td>
<td>17.47</td>
<td>19.71</td>
<td>18.79</td>
</tr>
</tbody>
</table>

Primary Section:

It is interesting to note that the percentage of urban workers engaged in the primary sector is 17.47% in 1981. However, it is slightly increased from 17.47% to 19.71% in 1991. The above table reveals certain interesting relationship features. Firstly, the similarity in these trend between 1981 and 1991 is continued.

On the regional basis, Manipur and Mizoram have the highest proportion of workers engaged in primary sectors with 43.09% and 41.20% in 1991 respectively. (Dig. 5.5) This was mainly because of the fact that a small rise in the proportion of urban population engaged in agricultural labourers of the urban centres of medium and small size of the respective states existed which have a strong rural setting.

Secondary Sector:

The population engaged in secondary sector showed a considerable decrease in the urban centres of the region from 18.79% in 1981 to 14.55% in 1991. This may be primarily because of the elimination of the 'Off-time workers' in the household industries according to the
new definition. All the urban centres which are in this sector have less than 25% of working population of the seven states, three have secondary populations of more than 15% in 1991 i.e. Assam (19.40%), Arunachal Pradesh (18.82%) and Manipur (17.26%). In this connection, Mizoram has the lowest secondary activity (only 9.32%). Thus the irregularity in the distribution of the secondary populations shows the varying functional nature of the urban centres of the region. Though for the region as a whole have a low proportion population of 14.55%, individually Assam exhibit marked increased of 19.40% from the general trend.

Tertiary Sector:

The high proportion of tertiary populations among the working population of the urban centres of the region is marked from 63.73% in 1981 to 65.74% in 1991. Of the seven states of the region, three have tertiary population of more than 75%. Meghalaya has the highest tertiary activity (77.02%) and followed by Tripura (75.70%) and Nagaland (75.16%).
It is true that there has been a large expansion in trade, transport and service sector due to government expenditure in various activities.

Keeping the relative magnitude of each occupation in view, the urban centres of the region are classified into the following four broad groups.

<table>
<thead>
<tr>
<th>Percentage range of occupation</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 25%</td>
<td>Low</td>
</tr>
<tr>
<td>25% - 50%</td>
<td>Medium</td>
</tr>
<tr>
<td>50% - 75%</td>
<td>High</td>
</tr>
<tr>
<td>More than 75%</td>
<td>Very high</td>
</tr>
</tbody>
</table>

From the data organised in Table No. 5,7, it is evident that a large number of urban centres of the region have primary activity, secondary and Tertiary sector ranging from 'low' to 'medium'.
It is also to be mentioned here that the tertiary activities in the region are playing a vital role in the promotion of the urban growth.

**FUNCTIONAL NATURE**:

Functional classification of urban centres is, indeed, a complex problem on account of its being arbitrary in nature. There is none, and naturally there cannot be any universal, water-tight limit to put a town under a certain category as the functions are performed in varying proportion in an urban centre. This problem becomes still more complex when we consider different functions simultaneously.

Voluminous literature is available on the functional classification of cities and Robert Smith has made a critical review of this entire range of literature. It revealed to spatial characteristics associated with urban functions: (1) the need to have a distributional pattern of towns in similar functional classes and (2) different functional classes have different types of hinterland areas.

All the schemes so far designed to accomplish functional classification of towns can be grouped into two categories, viz; (i) the Empirical and (ii) the quantitative methods. In quantitative methods certain stated criteria are devised so that towns are put into functional categories according as they occur. The classification made by Aurousseau is probably the most representative of the qualitative schemes – a schematic representation of which is given by Harold Carter.\textsuperscript{12} Aurousseau\textsuperscript{13} made a functional classification on empirical basis, first broadly considering active and inactive types and then categorising the active towns into six classes:

i) Centres of administration or the capital city,

ii) Centres of defence,

iii) Culture,

iv) Production,

v) Transport, and

vi) Recreation.


\textsuperscript{13} Aurousseau, M : The distribution of population on constructive problem, the geographical Review, 11, pp. 563-592.
He used these terms in the widest sense and was aware of the fact that in a particular town, one phase of activity is not the sole function but invariably it overshadows the rest of the functions. During the same period, Mekenzie 14 a sociologist, suggested four broad classes based on functions in urban communities, viz; (i) Primary service community which links the rural and primary producing areas to metropolis, (ii) Commercial community, collecting and distributing centres, (iii) Industrial town which often combines the primary service community and the commercial community and (iv) others including recreational centres and various resorts.

Needless to mention that the functional classification schemes, whether they are qualitative or quantitative, are based on certain assumptions and the most common one of them is that the proportion of working population (labour force) of urban centres is an indicator of the nature of urban economy.

The classification of Harris\textsuperscript{15} may be regarded as the first comprehensive scheme in the series of 'quantitative scheme' of functional classification of urban centres. In this scheme the critical values to recognise specialization are based on intensive analysis and as such arbitrary. The standard deviation method of Nelson\textsuperscript{16} is relatively a better yardstick to measure functional specialization. The other studies had followed almost the same line but for some modifications to meet some special and specific situations.

The idea of classifying the Indian towns and cities is not new and many Indian geographers have had attempted to accomplish this task.\textsuperscript{17} However, in most of the studies, the schemes mentioned earlier were employed for different "sets of towns and cities".

\begin{itemize}
\item 17. Ahmad, Q. (1965): Indian Cities Characteristics and correlates, University of Chicago, Dept. of Geography, Research Paper No. 102.
\end{itemize}
THE FUNCTIONAL CHARACTER OF THE URBAN CENTRES OF THE NORTH EAST INDIA:

An attempt is made here to recognise the functional nature of the urban centres in the North East India, by classifying them on the basis of their functional specialization. The method developed by Webb\(^\text{18}\) is employed here in view of its simplicity and easiness in calculating the functional indices. Another compelling reason for selecting the Webb's method is its simplicity in deriving the specialization indices. This method is found suitable to understand the functional nature of urban centres of the region under study.

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**References**


The functional character of the urban centres of the region is brought out on the basis of the occupational data of 1991 census. In order to obtain a measure that will indicate the importance of each function of an urban centre, relative to the importance of the same function in the other urban centres, the mean percentages of that function are computed. Since the aim is to understand the functional nature of a group of towns of varying sizes, the urban centres of the region are categorized into three groups, namely, 'medium Towns' (with a population ranging between 10,000 and 50,000), and 'small Towns' with a population of less than 10,000), so that the functional character of small towns is not obscured by the functional nature of urban centres larger in size.

When the mean functional indices for the three sizes of the urban centres are computed certain interesting features are noticed. The function of agriculture appears to be dominating in most of the 'medium towns' of the region. In the larger towns like Guwahati, Shillong, Dibrugarh and Imphal, the function of manufacturing (other than household industry) is the most dominating, followed by trade and commerce, other
services and agriculture. The pattern of distribution of the function of agriculture among the small towns of the region is more or less the same as that of the medium towns. Hence, functionally a similarity exists between the medium and small towns.

THE FUNCTIONAL CLASSIFICATION OF THE URBAN CENTRES OF THE NORTH EAST INDIA:

On the basis of the importance of a function against other functions of the same town, the functional character of a town can be determined. For example a 'mining town' simply means that the town has attained importance in the particular function compared to the other functions. In order to identify the functional specialization, the formula suggested by Webb is employed. The specialization indices for the urban centres of the region are ranked as per their sizes and are grouped into seven categories, which are arranged between the 'least specialised' and most specialised as suggested by Webb.

20. Specialization Index = \( \frac{P}{M_p} \cdot P \) + 100

where the value of \( P \) and \( M_p \) are the same as the formula for functional index.
In fact, most of the 183 urban centres in the region serve the purpose of distribution points to the rural areas, and gradually with the development of transport and communication, each of these towns becomes the focal point of the surrounding area.

The analysis has revealed that most of the urban centres of the region, specially the smaller ones have agriculture as a significant function. These urban centres with high functional indices in agriculture, are found in the rice growing regions. The function of mining and quarrying is represented by a very few towns like Digboi, Makum, Nazira, Naharkatiya, Doom-Dooma and Moran. The function of manufacturing household industry is relatively more dominant for the urban centres in Manipur, Assam, Tripura and it is purely because of cultural reasons. By virtue of being capital of the respective states, Guwahati, Shillong, Imphal, Kohima, Agartala, Aizawl and Itanagar are administratively important. With its commanding position on the Brahmaputra Valley and direct link with Calcutta, Guwahati is an eminent business centre and river port and also the gateway of Assam. Greater Guwahati is fast growing in importance as an industrial town, a seat of learning and a cultural centre.
Other towns of administrative and commercial importance in the region are Dibrugarh, Silchar, Jorhat, Nowgong, Tinsukia, Hailakandi, Karimganj, Diphu, Goalpara, Sibsagar, Hojai, Golaghat, Mangaldai in Assam, Pasighat, Naharlagun, Tezu, Along and Bomdila in Arunachal Pradesh, Churachandpur, Thoubal, Kakching, Nambol, Moirang, Moreh, Bishnupur, Wangjing and Sugnu in Manipur, Nongthymmai, Tura, Jowai, Nongstoin, Williamnagar, Cherapunjee and Baghmara in Meghalaya, Lunglei, Champhai, Seiha and Kolasib in Mizoram, Dimapur, Mokokchung, Tuensang, Wokha, Zonheboto and Mon in Mon in Nagaland and Badharghat, Dharmanagar, Udaipur, Teliamura and Jogendranagar in Tripura.

In addition to the above Digboi is an oil town with a refinery, established in 1899. It has a population of 35,930 (including the Digboi oil Town, 1991 census). With the establishment of the Thermal Power Plant and the fertilizer industry, Namrup (19,684) and Duliajan (16,852) are also becoming important industrial centre. Lumding (46,064) in the Nowgong district, Rangia (20,912) in the Kamrup district, Bongaigaon (48,907) in the Goalpara district and Badarpur (16,490) in the Karimganj district are important railway centres.
The impact of industrialization on urban growth is immense. It is a common experience that the industrial cities grow much faster than the other types of cities because of their employment potentialities.

The urban centres of the region having industrial activity are - Digboi, Margherita, Namrup and Seralkuchi. These urban centres have experienced very fast growth both in terms of population and status. The abnormal growth is mostly due to the large-scale migration of employment seeking population into these towns.

To conclude, since several aspects of the distribution of urbanism and urbanization trends for the region as a whole is studied it can be confidently said that the region has a bright urban future.