Chapter V

SOCIO-ECONOMIC TOPOLOGY OF MANIPUR

5:1. Introduction

Study of social, cultural and economic aspects of a community is significant in the context of epidemiology of certain diseases like malaria, leprosy, cholera, etc. Modern definition of environment encompass a wide range of facts of social, cultural and economic conditions as well as the traditional way of life. Variable level of economic development corresponding to general cultural pattern correlate with disease measure.\(^{70}\) All the investigation made so far by eminent scholars unequivocally admit that the socio-economic structure of the community has a direct bearing upon continuum of certain disease propagation. Therefore, study of the interaction between culture and health, society and health and economy and health is a primary issue in medical geography. It is a fact that different communities have certain

---

health practices, habit, medicaments and general view of health along certain traditional lines.

Physical environment is continuously changing by human through their acquired technology. Technology by itself is a cultural component developed through age-old practices and with economic changes. The commulative interaction of religion, social attitude, demographic character, human adaptability and techno-economic change evolve a cultural environment. It is expedient to comprehend the cultural component and its reaction with the physical environment in the evolution of quality of life of the society.

Quality of life partly depends upon its social habits, attitudes and reactions with the geo-ecological frame work. Growth, infection and spread of disease may be considered in the context of maladjustment of the society with the prevailing geo-ecological set-up, therefore, the quality of life can be said to be an anthropo-geographical phenomenon. 71

In this context, we may examine the socio-cultural pattern of Manipur in relation with diseases. Manipur has quite a number of types of major socio-cultural groups. Such as Meiteis, the hill tribes, and migrants of different socio-cultural backgrounds coming from other states of India or abroad.

The tribal people which constitute one-third of the State population settle mainly in the hill areas surrounding the Imphal Valley. They have distinct tribal culture - individual dialects, social organisation, customs and rituals. Originally they were animist in religion, but overwhelmingly converted to Christianity. They have a mixed economy of shifting cultivation, livestock raising and lumbering. They are economically backward and leading a low-standard of living. A sizeable group of the tribals are settled in scattered parts of the valley.

The Meitei community constitutes 55 per cent of the total population. They settle mainly in the valley areas. Their characteristic features include a well-developed language of their own. Manipuri Hindus have sedentary agriculture and have a distinct
Plate I. Unhygienic Foot-hill Settlements.
culture. Educationally and culturally they are wedded to modern style of life.

Muslim inhabit the south-central part of the Manipur Valley. Agriculture, including horticulture is their main occupation. They usually live adjacent to the meitei people. Nepaleses who are later settlers and mainly immigrants from Nepal mostly settled in the Sadar Hills and foot-hill areas of the different districts of the State. They are gregarious in character and live in unhigienic dwellings (plate:1). The Nepali dominated areas are prone to various diseases including malaria as stated by the doctors attached to the P.H.C’s.

Among other important communities, Marwari, Punjabi, Oriya, Bihari, Bangladeshis, Assamese, etc. are the main. They are concentrated in the important urban centres of the valley. These people are either traders, professionals or labourers.

So far as urban landscape of the State is concerned it is rapidly undergoing changes. But unplanned urban growth added problems like growth of slums, water supply, sewerage, diminution of open land, fresh air and light. Besides, growth of population—without corresponding
Plate 2b. In Imphal City bad drainage condition during the monsoon provides suitable ground for mosquito breeding.
Plate: 2c. Garbage dumping not far away from Imphal City causes mosquito breeding and hiding.

Plate: 3. Illegal immigration to Manipur causes infection.
So diffusion of infectious diseases have become rampant, That is why the Imphal district shows the highest incidence of Malaria (Table 4.13).

It is interesting to note that different communities from highly malarial areas like Bihar, Orissa, Assam, Mizoram and Nepal have concentrated in the Imphal Valley (Imphal, Thoubal & Bishnupur). Most of the towns are overgrown with population without improvement of urban amenities. Hence, problems like housing, inadequate drinking water supply, sewerage and waste disposal have caused wide-spread pollution (Plate 22). As the people live in congested, insanitary and unhealthy environmental conditions, infection as well as transmission of malaria from one another and from one place to another has become an unusual phenomena.

4.3. Migration, Mobility and Malaria

Migration plays an important role in malaria transmission. Human being as an important media propagate this specific disease and perpetuate the chain infection. There is clear historical evidences of the spread of malaria through human mobility in Africa and
spread of cholera in Assam, Bengal and Manipur. This is universal phenomena that labour migration from malarial and non-malarial areas bring immune and non-immune people together and this coupled with local and imported parasite reservoir, results in outbreaks of malaria, sometimes very explosive.\textsuperscript{73} Occurrence of malaria outbreaks in Nepali settlement of Nungba in Senapati district in 1985 (Map:\textsuperscript{4}) is a glaring example.\textsuperscript{74} Besides, sporadic outbreaks of malaria in project areas and Burma-border areas are still posing a big problem to the State medical administration. In support of these phenomenon the following statistics may be seen.

\textbf{Table 5:1}

\begin{center}
Labour force in various projects in North-Eastern States and Incidence of Malaria in 1979
\end{center}

\begin{center}
\begin{tabular}{|l|c|c|c|c|c|}
\hline
State/Union Territories & Total Labour Force (1000) & Malaria Prevalence & \hline
 & Total & Seasonal Labour & Total & Pf. & Pf. \\
\hline
Assam & 25 & 181 & 4.3 & 23.7 & 11.0 & 4.0 & 7.0 \\
Arunachal Pradesh & 6 & 56 & 3.7 & 66.1 & 19.6 & 6.8 & 10.8 \\
\hline
\end{tabular}
\end{center}

\textsuperscript{73} WHO, \textit{Regional Publication, South-East Asia}, Series No. 17 New Delhi, p. 1987.

\textsuperscript{74} NMEP, \textit{Malaria Report - 1985}, Medical Directorate, Govt. of Manipur, p. 1985.
Map 14. Major in-migration of people in Manipur from different states of the Country and abroad.
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagaland</td>
<td>3</td>
<td>32</td>
<td>9.7</td>
<td>30.3</td>
<td>22.5</td>
<td>7.0</td>
<td>18.0</td>
<td></td>
</tr>
<tr>
<td>Mizoram</td>
<td>1</td>
<td>15</td>
<td>8</td>
<td>53.3</td>
<td>3.0</td>
<td>3.5</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Manipur</td>
<td>3</td>
<td>11</td>
<td>3.6</td>
<td>32.7</td>
<td>3.7</td>
<td>2.4</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Meghalaya</td>
<td>6</td>
<td>6.9</td>
<td>2.4</td>
<td>34.0</td>
<td>7.0</td>
<td>2.0</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Tripura</td>
<td>2</td>
<td>1.5</td>
<td>0.5</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>46</td>
<td>253</td>
<td>70.9</td>
<td>28.0</td>
<td>11.1</td>
<td>4.0</td>
<td>7.1</td>
<td></td>
</tr>
</tbody>
</table>

(Source: WHO, Regional Publication, South-East Asia Series No. 17, 1987)

According to M. Prothero the population movement is divided into sub-categories as daily (away from place of residence for 24 hours), periodic (away from place of residence for more than 24 hours, but less than 12 months), seasonal (absence from place of residence for one or more seasons) and long-term (more than 12 months and possibly extending over years). In Manipur a large number of people immigrate from Burma, Bangladesh, Mizoram and Tripura and settle permanently in different parts of the State. This movement of people from one set of ecological conditions to another may expose them to the disease which are transmitted through insect vectors (Map: 14).

Initiation of planned development in Manipur from early fifties encourages large scale mobility of people. It is not the labour only, but also people of different shades and professions entered in Manipur for trade and commerce and various crafts. The migrants may be classed into the following categories:

(a) Manual Labour,
(b) Agriculture and allied works,
(c) Professionals - like doctors, engineers, officers, clerks, artisans, etc.
(d) Traders and petty business men.

Imphal, being the administrative headquater of the State and the nerve centre of all commercial activities, majority of the migrants have concentrated in and around the city. Other places of large scale influx are the project sites - where immigrant labours from other states settled temporarily. In the western part, the plain of Jiri river has easy access to Cachar plain of Barak Valley. People from Assam, Bangladesh or from other states of India freely enter into this part. So also, the eastern border areas where trade centres have developed, frequency of movement of people has increased at a faster rate.
Plate 4. Jhum-Huts and Foot-Hill Settlements
In Manipur seasonal movement of population, specially, during the agricultural season is quite common. During the peak season the tribal people stay temporarily in the agricultural or jhum hut, built in the fields which are not protected from malaria vectors (Plate: ). In the mortality reports (NMEP) it is revealed that most of the deceased persons were infected during their absence from home either in connection with agricultural or business activities. With the improvement of transport and communication and increase of vehicular movement the risk of spreading and importation of malaria in the State has further aggravated.

Besides the above noted mobility, students, tradesmen, service holder move outside the State and become temporary resident in other states and get afflicted by malaria. On enquiry and investigation it was found that a large percentage of students studying outside the State are found frequently infected by malaria. It was found that in 1985, all the students who stayed in a hostel near Howrah were victims of malaria. So also students staying in Bihar, U.P., Delhi, Gujarat, Orissa, etc. are likely to be infected by malaria and on their return the disease may get diffused in Manipur.
Plate 5. Straw-huts on the fringe zone of the Loktak lake full of water hyacinth and grasses breeds mosquitoes.
5:4. Habitation and Housing Condition

By tradition most of the Manipuries construct boundary drains, surrounding their households. These drains are often filled up with rain or flood water and provide resting as well as breeding places for mosquitoes. The boundary fencing made of tall trees always shade the water and make them suitable for preserving the mosquito larvae.

In the rural areas, the animal sheds and living houses are found clustering. These animal sheds are not hygienically protected. Consequently, the household environment create suitable situation for breeding of mosquitoes.

Besides, housing pattern and building materials also be counted. It has been recorded that the vector's behavior is also affected by the house type and materials in house construction. In rural areas of the valley and among backward classes in the hill areas houses are poorly ventilated, therefore, some portion of the house always remain dark. On the other hand, bamboo and thatch which are used as building materials may also provide comfortable places for hiding or resting of mosquitoes during day-time.

Plate 6. Stagnant pool in front of the house at Imphal, an excellent breeding ground for mosquitoes.
5:5. **Religion**

Dictates of religion often model the social order, customs and rituals. Religious dictum blind faith and their social offshoots, very often compel a community to undergo acid tests of religiosiy. In the process the lives of the simple community are endangered. This is the case with many of the religious people who go to pilgrimage to different parts of the Country get infected by malaria or such other contagious diseases which occasionally prove fatal.

5:6. **Drainage, Sewerage and Ponds**

Manipur has wet climate. During monsoon, supply of water is in access of requirement. The valley is studded with unnumerable lakes, swamps, ponds and marshes. The valley as a whole is poorly drained. These lakes and swamps, drains and marshes are the breeding grounds for swarms of mosquitoes. The hills are of course free from such water logging. In the densely settled areas of the valley districts, floods, stagnant water, lakes and poor drains provide extensive mosquito breeding sources. Even in dry season most of the low-lying areas are covered with water hyacinth and other aquatic plants, which also act
as a shelter for the mosquitoes (Plate: 5)

All the drains and sewerage in the urban areas are devoid of free flow of water and are not maintained properly by the municipality. The sewerage and roadside drains are often chocked with back waters of the flood and are contaminated by pollutants. These polluted waters become the breeding ground for mosquitoes. Extension of urban fringe, filling up of the natural water reservoirs for construction of buildings further deteriorate the urban environment. Important rivers, viz, the Iril, the Imphal and the Nambul which flow through the thickly populated areas are being dammed for various purposes. This makes the water stagnant, therefore, where breeding of mosquitoes take place.

The traditional source of water supply in Manipur is the pond or tank. Almost each and every family possesses a pond in their courtyard which are not scientifically treated and maintained (Plate: 6). Besides, the pond waters are shaded by trees which obviously provide shelter and space for breeding of mosquitoes. All the pond waters are heavily infested with mosquito larvae and various pollutants. In absence of tap water many villagers consume such water.
5:8. **Malaria - Age and Sex**

**Age:** Malaria incidence is generally high amongst the age group of above fifteen, whereas low infection amongst the infant (0-5 age) and lower age group of 5-15 age.

The following table depicts the age distribution of malaria patients in Manipur during 1986-1990.

**Table 5:2**
**Malaria: Age-wise Susceptibility**
1986-1990 (Av.)

<table>
<thead>
<tr>
<th>District</th>
<th>0-4</th>
<th>5-14</th>
<th>15 above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imphal</td>
<td>3.6</td>
<td>17.6</td>
<td>262.4</td>
</tr>
<tr>
<td>Thoubal</td>
<td>0</td>
<td>1.8</td>
<td>141</td>
</tr>
<tr>
<td>Bishnupur</td>
<td>0.4</td>
<td>7</td>
<td>26.6</td>
</tr>
<tr>
<td>Ukhrul</td>
<td>3.6</td>
<td>20.2</td>
<td>58.6</td>
</tr>
<tr>
<td>Churachandpur</td>
<td>12.2</td>
<td>49.6</td>
<td>144</td>
</tr>
<tr>
<td>Chandel</td>
<td>4.6</td>
<td>18</td>
<td>80.6</td>
</tr>
<tr>
<td>Senapati</td>
<td>4.8</td>
<td>44.2</td>
<td>105</td>
</tr>
<tr>
<td>Tamenglong</td>
<td>2.8</td>
<td>18</td>
<td>79.2</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>1105.8</td>
<td>176.4(15.95%)</td>
<td>897.4(81.15%)</td>
</tr>
</tbody>
</table>

(Source: NMEP, Imphal)

**Sex:** According to nature of works male are exposed much to malaria than female. They remain out-door for a longer
time whereas majority of the female population stay at home. On the other hand, female are better protected because of their dresses they use.

In Manipur infection rate among male is always higher than female as shown in the table given hereunder.

Table 5: 3
Sex-Wise Susceptibility of Malaria 1986-1990 (Av.)

<table>
<thead>
<tr>
<th>District</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imphal</td>
<td>222.4</td>
<td>57.6</td>
</tr>
<tr>
<td>Thoubal</td>
<td>125.4</td>
<td>14.8</td>
</tr>
<tr>
<td>Bishnupur</td>
<td>28.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Ukhrul</td>
<td>53.4</td>
<td>30.</td>
</tr>
<tr>
<td>Churachandpur</td>
<td>141.2</td>
<td>71.2</td>
</tr>
<tr>
<td>Chandel</td>
<td>67</td>
<td>37.4</td>
</tr>
<tr>
<td>Senapati</td>
<td>91</td>
<td>61.</td>
</tr>
<tr>
<td>Tamenglong</td>
<td>63.6</td>
<td>32.8</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>792.8 (71.99%)</td>
<td>308.4 (28.00%)</td>
</tr>
</tbody>
</table>

(Source: NMEP, Imphal)

The above table suggests that 72 p.c. of the malaria infected patients are male.
5:9. **Leprosy : Age-Sex Susceptibility**

Male population are found infected more than female. It is perhaps due to larger exposition to the disease. During the period under study, i.e., 1956-1988 at an average 60.80 p.c. of the infected population are male (Appendix: 6).

So far age variation is concerned the highest infection is found among the age group of 20-44 (47%). Infant infection is quite negligible (Appendix: 6).