Part II(B)

Chapter 9

HEALTH AND SANITATION

It has been hinted at the last chapter that the health care of the people has been taken by the Government for efficient working and comfortable long life. Primary occupation of most of the people is agriculture as discussed in chapter 2. This occupation requires hard physical work. So, they are to maintain a strong body without illness. The people of the area are not free from common diseases e.g. diarrhoea, dysentry (amoebic and bacillary), influenza, malaria and hooping cough etc. For these common diseases curative and preventive medicines and measures are necessary to provide for care of their health. The modern allopathic system can provide curative and preventive drugs. In order to provide such medical facilities, the Government has established Public health centres and State dispensaries to look after the health of the people. Public health centres control the other three lower category of clinical Sub-centres viz. State dispensary, Sub-centre, Subsidised dispensary. But Sub-centres are not provided with Doctors. The Government also provides Subsidised dispensaries, Ayurvedic dispensaries etc. in the rural areas. The Subsidised dispensary and Sub-centres are serving as first aid centre only. In order to show the organisational set-
up of the medical department and the benefit offered to the three community centres, a brief description is given below:

9.1 Medical Centres and Treatment:

Medical Centres: The Dimoria block has one Public health centre, six State dispensaries, five Sub-centres and two Government Subsidised dispensaries — one allopathic and one Ayurvedic dispensary. Sonapur Public health centre has fourteen beds — ten for males and four for females.

Azara public health centre of Rani block is under Gauhati Medical College. The total bed number in this centre is six of which four are for males and two for females. Rani dispensary is the only State dispensary in Rani block. The block has three Sub-centres and one Government Subsidised allopathic dispensary.

Rampur block has received better attention of the Government for medical facilities. It has two Public health centres, one at Uparhali with ten beds — six for male and four for female patients, and the other at Rampur with no bed. The locations of the two Public health centres in a small area of the block are due to political influence. Nine State dispensaries have been established in Rampur block. The location of medical centres are shown in fig. no. 9.1 and 9.2 and the list of centres is given in Appendix D. These two figures give an idea of slow progress in the establishment of medical centres during the period of 1952 to 1979.
Mc Glashan's 'Work-load' factor has been used in block level to find out the disparities in the medical facilities among the blocks. The formula (i.e. the relation) of work-load factor, derived by Mc Glashan, has been successfully applied by N.N. Bhattacharyya in a paper on 'Health Services in Assam'. The relation of work-load factor of hospital bed is:

\[ \text{Wlf} = \frac{P_b}{H_b} \times 100 \]

where Wlf stands for work-load factor, \( P_b \) for population of the block and \( H_b \) for number of hospital bed. The work-load factor of hospital bed signify (Table 9.1) that poor medical facilities

Table 9.1

<table>
<thead>
<tr>
<th>Block</th>
<th>Population Served (( P_b ))</th>
<th>Hospital Bed (( H_b ))</th>
<th>( \frac{P_b}{H_b} )</th>
<th>Wlf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimoria</td>
<td>75963</td>
<td>14</td>
<td>5425.9</td>
<td>54</td>
</tr>
<tr>
<td>Rani</td>
<td>53775</td>
<td>6</td>
<td>8962.5</td>
<td>90</td>
</tr>
<tr>
<td>Rampur</td>
<td>82638</td>
<td>10</td>
<td>8263.8</td>
<td>83</td>
</tr>
</tbody>
</table>

have been provided in the blocks. The state average work-load factor is only 31. This means Assam is under-served by medical facilities. Applying the same formula the national average work-load factor is also found out and it is 20.2 It is observed that more emphasis has been given to the tribal block in comparison to the other two; but, then it is far below State average. The area faces a serious crisis and needs a scheme to improve the existing medical facilities and to establish some new ones. So, at the moment extension of the present Public health centre system may be made to include atleast one Public health centre or 'Medic' per 10,000 population as recommended by the World Health Organization.3

**Staff Position:** Usually one M.B.B.S. doctor is appointed for each public health centre and another doctor for each State dispensary with nurse and para-medical staff under different pay scales. The contingency fund of Rs. 20.00 per month has been allocated for each centre and dispensary. Doctors from Family Planning department have also been appointed in health centres where there is Family planning centre. Health centres are provided with a few beds and a vehicle. But the Sub-centres and Subsidised dispensaries are not equipped with doctor. The medicine supplied to these sub-centres are also very meagre. Pharmacist and mid-wives are the only employees of these sub-centres. The subsidised ayurvedic dispensaries are not dependable in serious ailments, because of inefficiency of the

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2 Ibid.
3 Ibid.
system itself, insufficient provision of facilities and for aversion of the people for the system. The para-medical staff is meant for taking preventive measures of health. The staff position of the three blocks in different years is given in the Appendix D. It is observed that the staff position of medical department has not improved during the period of 1970 to 1978 to meet the growing needs. The present number of Government doctors in Dimoria, Rampur and Rani development blocks are 7, 13 and 3 respectively. So, it is observed that adequate number of doctors is not available to serve the people of these blocks. The ratio of Government doctors and population is found to be 1:10852, 1:6357 and 1:17925 in Dimoria, Rampur and Rani development blocks respectively.

Patients Treated: The blocks under study have the similar type of hygienic condition. 'General and systematic examinations revealed that 76.7 per cent of the children (78.6 per cent boys and 72.9 per cent girls) suffered from one or more diseases or defects. Average number of diseases per defective boy was 3.5 and for girls it was 2.4'. Round worm was present in 57.6 per cent males and 33.3 per cent females, Hook-worm was present in 43.0 per cent males and 28.2 per cent females.'

*Hook-worm infestation in the present work was found to be higher

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among the illiterates than in literates. The illiteracy, ignorance of the people about hook-worm infestation, insanitary habit and poverty were found to be the main contributing factors for maintaining a constant exposure to hook-worm infestation. In comparison to the males the females are less infested due to their less movement.

A large number of patients has received treatment in the Primary health centres, the State dispensaries and the Sub-centres as shown in the Appendix D22. It is observed that more patients have been treated in the bigger service centres because of better facilities which attract more patients. The people are eager to take treatment under better medical provision. Incidentally it is observed that there has been a steady decline in per cent of incidence of diseases, in spite of substantial increase of population. This may be due to educational advancement, improvement in sanitation in a way and provision of better potable water which is discussed in subsequent sub-chapter. However, there are variations so far as incidence of diseases are concerned from one health centre to another.

Survey reveals that even in these modern days a small per cent (1.2 per cent) of people in the area rely on primitive

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7 Das, M.K., Loc. cit., p. 68.
methods of treatment like indigenous medicine, mantras and prayers for appeasement of super-natural powers. The rest of the people are aware of hospital services and are habituated to allopathic treatment. The greatest difficulty faced by the people is for non-availability of medicines. The physicians as well as the patients fail to get the medicines from the local market, or the patients cannot afford to purchase them. Another difficulty faced by the people is inaccessibility to the health centres. Hospitals or dispensaries are located at distant places, for which most of the patients cannot reach them at the time of emergency. Physicians also fail to reach them on the same ground. Most of these local hospitals, dispensaries or health centres cannot supply the required drugs to the patients as they do not receive adequate supply from the Government. Fig. no. 9.3 shows the spatial distribution of beneficiaries from medical facilities.

9.2 Awareness of Preventive Measures of Health

'Smallpox vaccination was done in 77.3 per cent of boys and 75.0 per cent of girls, both smallpox and B.C.G. vaccinations were given to 19.6 per cent of boys and 21.0 per cent of girls. Altogether smallpox vaccinations were done in 96.6 per cent of boys and 96.0 per cent of girls. Diseases like Cholera, smallpox, etc. which broke out in the form of epidemic frequently, not in the long past resulted in high mortality. Now,

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8 Sarma, K.C., op. cit., p. 128.
RAMPUR, RANI & DIMORIA C. D. B.

SPATIAL DISTRIBUTION OF BENEFICIARIES OF
MEDICAL FACILITIES (FIGURES IN P.C)

INDEX

- BENEFICIARIES
- NON BENEFICIARIES

FIG. NO. 9.3

RAMPUR, RANI & DIMORIA C. D. B.

SPATIAL DISTRIBUTION OF BENEFICIARIES OF
FAMILY PLANNING (FIGURES IN P.C)

INDEX

- BENEFICIARIES
- NON-BENEFICIARIES

FIG. NO. 9.4
education, gradual improvement of hygienic condition, frequent intake of medicines for different ailments, prompt control of spread of diseases probably have reduced the epidemics. It was found on enquiry that roughly three-fourths of the population have responded actively to the preventive measures taken by the Government or by the block authorities. But, a considerable number of the population are no longer interested in preventive measures as they consider that recurrence of epidemic is completely controlled. After eradication of epidemics, the effort made by the Government has also been slowed down. But it is interesting to note that about one per cent of the villagers are still ignorant about these preventive measures.

The table below (Table 9.2) gives an idea regarding response of the common people to preventive measures.

Table 9.2
Response to Small Pox Vaccination
(Figures in Per cent of Total Households)

<table>
<thead>
<tr>
<th>Stages of Response</th>
<th>Rampur</th>
<th>Kani</th>
<th>Dimoria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not Heard</td>
<td></td>
<td>-</td>
<td>2.5</td>
</tr>
<tr>
<td>2. Heard Only</td>
<td></td>
<td>-</td>
<td>5.5</td>
</tr>
<tr>
<td>3. Heard but not Interested</td>
<td>10.5</td>
<td>16.0</td>
<td>6.1</td>
</tr>
<tr>
<td>4. Heard and Interested</td>
<td>6.5</td>
<td>11.5</td>
<td>8.5</td>
</tr>
<tr>
<td>5. Adopted</td>
<td>83.0</td>
<td>67.0</td>
<td>76.5</td>
</tr>
<tr>
<td></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: K.S.S.
9.3 Adoption of Family Planning:

Government is more concerned with family planning than for providing health security measures. All the Public health centres and State dispensaries are equipped with family planning facilities, including doctors. Location of Family planning centres are shown in fig. no. 9.1 and 9.2.

Family planning is not very successful in the region under study. The necessity of family planning is not properly understood or realised by the people. The people are afraid of undergoing operations because of the belief that the operation makes man weak and indolent. Among the tribal people this is the least practised either due to conservative attitude or complete ignorance about it. Muslims of the region do not adopt family planning on relegious grounds. The enclosed table (Table 9.3) shows the response of the people towards family planning devices.

Table 9.3
Approval Stage of Family Planning
(Figures in Per cent of Total Households)

<table>
<thead>
<tr>
<th>Approval Stage</th>
<th>Rampur</th>
<th>Rani</th>
<th>Dimoria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not Answer</td>
<td>0.5</td>
<td>4.5</td>
<td>0.4</td>
</tr>
<tr>
<td>2. Not Heard</td>
<td>0.0</td>
<td>0.0</td>
<td>0.8</td>
</tr>
<tr>
<td>3. Don't know</td>
<td>0.0</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>4. Disapprove</td>
<td>6.0</td>
<td>6.8</td>
<td>16.6</td>
</tr>
<tr>
<td>5. Approve but not Practised</td>
<td>76.7</td>
<td>62.3</td>
<td>68.2</td>
</tr>
<tr>
<td>6. Approve and Practised</td>
<td>16.8</td>
<td>22.4</td>
<td>12.0</td>
</tr>
<tr>
<td>(a) Sterilization</td>
<td>(a)47.0</td>
<td>(a)47.8</td>
<td>(a)37.8</td>
</tr>
<tr>
<td>(b) Vasectomy</td>
<td>(b)29.5</td>
<td>(b)35.5</td>
<td>(b)58.5</td>
</tr>
<tr>
<td>(c) Others</td>
<td>(c)23.5</td>
<td>(c)16.7</td>
<td>(c)3.7</td>
</tr>
</tbody>
</table>

Source: R.S.S.
Fig. no. 9.4 shows the spatial distribution of beneficiaries from Family planning programme.

9.4 **Sanitary Position:**

**Source of Potable Water**: The people of the area still depend largely on natural or dug out ponds, wells, tube-wells, rivers, streams etc., for supply of potable water. There are no provision for purification of water. In order to supply potable water provision has been made by the block authority to install hand-pump, or to construct and to renovate wells as shown in table 9.4. During the period of 1966-67 to 1975-76 the achievement of hand-pump installation is almost insignificant.

<table>
<thead>
<tr>
<th>Table 9.4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provision of Potable Water</strong></td>
</tr>
<tr>
<td>(1966-67 to 1975-76)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Dimoria</th>
<th>Kani</th>
<th>Rampur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hand-pump Installed (nos.)</td>
<td>Nil</td>
<td>Nil</td>
<td>1</td>
</tr>
<tr>
<td>2. Wells Constructed (nos.)</td>
<td>222</td>
<td>13</td>
<td>36</td>
</tr>
<tr>
<td>3. Wells Renovated (nos.)</td>
<td>1187</td>
<td>313</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: C.D.P. - Progress. (for details see Appendix D.23).

More emphasis has been given to construction and renovation of wells, specially in the tribal block. At the initiative of the Community Development Blocks, more wells and tube-wells were
installed. Most of such tube-wells were installed at the initial stage of the community development movement. But, installation of public tube-wells or pucca wells is primarily decided by the panchayat member or village leaders, and it is observed that greater consideration is given to the advantages of favoured individuals than for the public utility in general. A few households installed private tube-wells or wells which are the source of potable water of poor neighbours, too. There is a tendency for every household to have its own tube-well. From the table 9.5 it is seen that provision of hygienic water is meagre in all the three blocks.

Table 9.5
Source of Potable Water
(Figures in Per cent of Total Households)

<table>
<thead>
<tr>
<th>Source</th>
<th>Rampur</th>
<th>Kani</th>
<th>Dimoria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pond</td>
<td>0.5</td>
<td>0.7</td>
<td>3.3</td>
</tr>
<tr>
<td>2. Stream</td>
<td>-</td>
<td>-</td>
<td>6.0</td>
</tr>
<tr>
<td>3. River</td>
<td>3.0</td>
<td>2.0</td>
<td>7.0</td>
</tr>
<tr>
<td>4. Well</td>
<td>31.2</td>
<td>32.3</td>
<td>68.2</td>
</tr>
<tr>
<td>5. Tube-well</td>
<td>65.3</td>
<td>65.0</td>
<td>15.5</td>
</tr>
</tbody>
</table>

| Total      | 100.0  | 100.0 | 100.0   |

Source : R.S.S.

It is observed that the tribal block has more wells and the other two blocks have more tube-wells for supply of potable
water. Less than half of the wells are pucca. Taking into
account both the private and the public tube-wells, hardly 46.5
per cent of the population is provided with potable water. The
condition of Dimoria block is the worst in this respect. It may
be mentioned that almost 80 per cent of the public tube-wells
provided by the panchayat or block authorities are not functioning
well. In short, the problem of supply of good potable water has
remained where it was and the community block movement has
failed to tackle this problem effectively. Spatial distribution
of beneficiaries from potable water is shown in fig. no. 9.5.

Other Measures on Sanitation: Under the plan of the
blocks, provisions for supply of a number of sanitation materials
have been made. There are records of supply of low-cost sanitary
facilities like soakage pits, smokeless chulla, construction of
latrine and pucca drains with greater preference to tribal people
as shown in table 9.6. But it is observed that total number of
households benefited by such facilities are very insignificant.

Table 9.6
Beneficences Towards Sanitation
(1966-67 to 1975-76)

<table>
<thead>
<tr>
<th>Item</th>
<th>Dimoria</th>
<th>Rani</th>
<th>Rampur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rural Latrines Constructed (nos)</td>
<td>1187</td>
<td>1425</td>
<td>445</td>
</tr>
<tr>
<td>2. Soakage pits Constructed (nos)</td>
<td>763</td>
<td>829</td>
<td>28</td>
</tr>
<tr>
<td>3. Smokeless Chullas Installed (nos)</td>
<td>879</td>
<td>303</td>
<td>19</td>
</tr>
<tr>
<td>4. Pucca Drains Constructed (mtr)</td>
<td>24</td>
<td>Nil</td>
<td>1123</td>
</tr>
<tr>
<td>5. Village Lanes Paved (sq. mtr)</td>
<td>186</td>
<td>Nil</td>
<td>Nil</td>
</tr>
</tbody>
</table>

Source: C.D.P.- Progress.
In other words the provision of sanitary development and other facilities for proper hygiene have not properly reached the common man in the rural areas. This is perhaps due to inadequate supply of materials to the respective blocks and improper distribution of such items to the people and more so due to lack of motivation from the block administration.

It is noteworthy that education on hygiene and sanitation like disposal of garbage, sewerage, night-soil, carcass etc., has not yet been imparted to the people. These dirty materials after frequent floods spread towards residences and become the breeding ground of various germs. Excluding tube-well, other sources of water are unhygienic, too. Malnutrition of the people may be assumed from the insufficiency of production of agriculture and livestock as discussed in chapter 4 and 5. Fishes are also not abundant as discussed in chapter 6. The people do not get adequate food and perhaps this is one of the reasons for malnutrition. Insufficient calories leads to lethargy and weakness. Further the area produces very little fruits excepting a few low quality mangoes, jack fruits and banana. The poor condition does not allow them to purchase imported fruits from outside.

Considering the ill-health and malnutrition of the people the block authority through the Special Nutrition Programme, the World Food Programme, the Pre-school Feeding Programme, the Applied Nutrition Programme has tried to provide nutritious diet
and food items specially to pregnant and nourishing mother and child below the age of six years. To feed such persons each block has provision of ten centres, with a capacity of 100 persons of which 90 for children and the rest for such mothers, under the Special Nutrition Programme, and the World Food Programme. After delivery of a baby the mother cannot come to the feeding centre; and the baby has to depend on the food-deficient mother. Thus the programmes, excluding the Applied Nutrition Programme, offer nutritious diet and food items only to pregnant mothers and grown-up children and that, too, for a short period of time. Some of the feeding commodities under the World Food Programme are brought from outside the country and the feeding items are so rich in food value that these are not easily digestible by a weak digestive system of a child in the blocks. Feeding centres have to feed more than the required number of mouths which wait with a hungry look. Each block has provision of two feeding centres with a capacity to feed a hundred children under the Pre-school Feeding Programme. In order to do so the localities with the most deficient in food intake are listed out by a Block Advisory Committee for such programmes; and after that generally a school is selected as centre. But, the Applied Nutrition Programme has no direct feeding provision but some plans to provide continuous supply of food items. Under the plans of Applied Nutrition Programme, facilities have been offered to establish poultry farm, fishery and horticulture which may yield valuable food items. But, the
programme is coming to a halt without any noticeable achieve-
ment. The programmes are good; but the beneficiaries are not
fully satisfied probably due to mismanagement in centres. The
target of the inclusion of persons is also low in comparison
to the total persons in consideration of ill-health and malnu-
trition of children and mothers.

The people, from their very childhood, are addicted to
tobacco in the form of biri, chewing tobacco and, chilon-
tobacco. This addiction causes various diseases, and laziness,
and incapacitates for work. The tribal people are accustomed
to country liquor. Poor diet, unhygienic living, consumption
dirty water coupled with addiction to tobacco and country
liquor etc. are responsible for gastric, liver (hepatic) 
trouble, heart diseases, anaemia, visual trouble.

Health hazards may also be minimised through education
on hygiene and sanitation. To promote education on such matters
as well as on functional literacy,⁹ the programme of Social
education has been incorporated with the Community development
blocks. Impact of Social education has been discussed in the
next chapter.

⁹ Discussed in the next chapter.