Chapter – 5

DISEASES, EPIDEMICS AND SANITATION

EPIDEMICS AND COMMUNICABLE DISEASES

In *simple* words the term epidemics may be defined as a wide breakout of infectious diseases. The term communicable is also used to define epidemics which means, to pass on from one person to another. Epidemic spread from man to man, or from animal to man or from man to animal. During 19th century in Bangalore people suffered from the attack of regular epidemics, like Plague, Cholera, Fevers, etc., besides natural calamities like famine did great harm to humanity. These epidemics not only led to loss of population but also seriously affected the economic development of the state.

Between 1871 and 1921 India experienced what has aptly described as a “Woeful crescendo of death”. A death rate of 41.3 per 1000 of the population in the 1880’s, already high by contemporary western standards, rose to 48.6 per 1000 in the decade 1911-12. The causes of this ravage upsurge in mortality have been much debated. Some writers have stressed India’s increased exposure, through modern system of trade and transport to new invading potmogene like plague and influenza: others see high levels of mortality in India as a result of deteriorating economic social and environmental conditions.

Whatever the underlining causes, an immediate factor in precipitating this protracted crisis of mortality was a series of major epidemics- Famine, Plague, Malaria, Cholera, Influenza and Fever occurring
against a background of high endemic disease levels. Between the mid 1890’s and early 1920’s Malaria alone might have been responsible for as many as 20 million fatalities, one in every five deaths recorded. Respiratory diseases, tuberculosis, pneumonia, bronchitis, took almost as heavy a toll as did dysentery and diarrhea.

Some of the important Communicable diseases found in the district and the impact of their incidence is discussed below

**PLAGUE:**

Plague bacillus took away the lives of over twenty million people in India between 1896-1918 and by any estimate effected and impaired a far greater number. This tragedy had an element of irony too, as death and decimation reigned unchecked despite the discovery, production and administration of anti-plague serum.

During the period, plague first struck canton in October 1894 and travelled to Bombay via Hong Kong and Calcutta by June 1896. The colonial government was initially reluctant to admit its appearance due to various reasons of international censure, disruption of trade and commerce and destabilization of internal administration.

In August 1898 plague made its way into the state of Mysore. Bangalore was the first place to be affected. There after it spread to the districts of Bangalore.
TABLE-VIII

Plague reports of 1988 (Mysore and Bangalore)

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Year</th>
<th>AVERAGE</th>
<th>Ratio per mile of population</th>
<th>% of Deaths to attacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1898-99 to 1902-03</td>
<td>19,490</td>
<td>14,700</td>
<td>2.70</td>
</tr>
<tr>
<td>2</td>
<td>1903-04 to 1907-08</td>
<td>15,902</td>
<td>11,589</td>
<td>2.13</td>
</tr>
<tr>
<td>3</td>
<td>1908-09 to 1912-13</td>
<td>9,669</td>
<td>6,979</td>
<td>1.22</td>
</tr>
<tr>
<td>4</td>
<td>1913-14 to 1917-18</td>
<td>9.555</td>
<td>6.706</td>
<td>1.17</td>
</tr>
<tr>
<td>5</td>
<td>1918-19 to 1922-23</td>
<td>10,157</td>
<td>1,706</td>
<td>1.41</td>
</tr>
</tbody>
</table>

The origin of the outbreak of epidemic cannot be satisfactorily traced. That (it was connected) its connection, in some way or the other with the Southern Marhatta Railway was very probable, because the first instance of cases occurred entirely among the coolies employed at the transshipping of goods and in their families. Secondly the first infected houses were situated in close proximity to railway goodsheds at Bangalore City.

The report submitted by Col. Benson, senior surgeon and sanitary commissioner death with the details about this disease that broke out in Bangalore. The districts of Shimoga and Kadur which remained free for a few years earlier came to be infected in the early part of September 1900 and middle of January 1901.
TABLE - IX

Area Wise Deaths in Mysore City due to Plague in 1900 -1901.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>Population</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laskhar Mohalla</td>
<td>16568</td>
<td>1447</td>
</tr>
<tr>
<td>Mandi Mohalla</td>
<td>12009</td>
<td>1098</td>
</tr>
<tr>
<td>Devaraja Mohalla</td>
<td>9659</td>
<td>678</td>
</tr>
<tr>
<td>Chamaraja Mohalla</td>
<td>9833</td>
<td>501</td>
</tr>
<tr>
<td>Krishnaraja Mohalla</td>
<td>9786</td>
<td>957</td>
</tr>
<tr>
<td>Fort Mohalla</td>
<td>4857</td>
<td>150</td>
</tr>
<tr>
<td>Zarinabhad</td>
<td>5439</td>
<td>276</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>68151</strong></td>
<td><strong>5103</strong></td>
</tr>
</tbody>
</table>

Between 1897 and 1923 the Mysore State had been persistently affected by plague. The following table shows the average commencing from 1898-99 to 1922-23, with ratio of Plague mortality per mile of population and the percentage of deaths to attack.\(^5\)

The total mortality in 1898-99 in the Bangalore City Peta was 8,058 of which death due to plague was estimated to be 6,658 of which 2,665 deaths were registered as deaths due to plague and remaining 3,393 deaths from plague escaped detection.\(^6\)

In Bangalore City goods shed road, Gowdanpete, Aralepete and Akkipete with an average mortality rate of 60 per week. The plague patients were deserted in their houses while their family members left and the dead bodies were thrown into the streets and sometimes into the municipal latrins and dust bins. The plague measures like orders to live in segregation were
resisted by the people with protests and mass meetings. The fleeing of the people from the city caused the rapid spread of the disease in the other parts of the state 7 the effects of plague in Mysore City were far reaching. During the year 1898-99 out of the total population of about 69,000 more than 7,783 people lost their lives due to plague, Lashkar Mohalla, Mandi Mohalla, Devaraja Mohalla were the area’s most effected 8 The plague hospitals were established in the cities of Bangalore, Mysore. In Bangalore City Dr.D.A.Choksi, civil surgeon was appointed as chief plague officer and entrusted with the execution of plague measures in the city. The city was divided into four wards, each ward being placed under an assistant commissioner who was assisted by a medical officer of the grade of an Assistant surgeon. Rail passangers coming from infected areas to Bangalore were inspected at Yeshwanthapur, Bangalore Cantonment and Kengeri stations. 8 If any passanger was found suffering or suspected to be suffering from plague and if the place of destination was the city, they were sent to Magadi road health camp for treatment or observation. For the accommodation of such of the healthy people as wished to quit the infected parts of the city, sheds were constructed at government expense. About 588 sheds were erected at Magadi road, Mysore road, Yedur, Gutahalli and other places 9

Plague infected patients were admitted to Government plague hospital which consisted of two permanent buildings, originally built for contiguous diseases capable of accommodating 32 patients : Three buildings with corrugated iron roofs supported on rails with corrugated iron sides and moveable tatty doors capable of accommodating 42 patients: Five buildings with accommodation for 66 patients with roof of either Mangalore tiles or
corrugated iron, Mangalore tiled floors and bamboo tatty sides. In addition to these, there were 44 sheds capable of accommodating 132 patients, so that in all there was, in the Government hospitals, accommodation for 272 patients. The hospital establishment consisted of two European matrons, two compounders, one mestri, two head warders, 23 male warders, 16 female warders and others conuring the exchequer rupees 1,194. 15.5 per mensem. The total number of admissions to hospitals and contact camps were 2,053 of which 641 were discharged as cured, while the rest 1,412 died.

**PUBLIC REACTION TO THE PLAGUE OPERATIONS**

At the commencement of the plague operations, owing to the ignorance of the people every measure of government was opposed or subjected. Mr. Achyuta Rao, the health officer, describes the ideas that prevailed in the minds of the people regarding plague and plague measures.

“The hospital and contact sheds were looked upon as slaughter houses. Any attempt to purify the drinking water was put down as an attempt to poison it. Even putting up of sheds at Burial grounds for the accommodation of watermen was looked upon with suspicion as having some sinister object in view. Inoculation was dreaded and it was thought that the object of inoculation was to instill some subtle poison into the system”.

For a number of days many people discontinued drawing drinking water from the public water fountains and went long distances to get water from tanks and disused wells and ran the risk of catching fever and other ailments. “Segregation sheds were set on fire in several parts of the Districts”.

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“Mobs collected on the occurrences of some of the earlier imported plague cases, especially on the 14th of October 1898 when they became threatening in their attitude towards the deputy commissioner, the chief plague officer and health officer. The Patrol of imperial lancers in the city had however a good effect.

Mr. Achyuta Rao, Health Officer, had stones pelted at him by some unruly youths who disapproved of inoculation but these were promptly punished. But the manner in which the Srirangapatnam riots were suppressed and the issue of a notification abolishing compulsory segregation, disarmed all further opposition and the plague officers had no trouble in carrying out their work. So much had the temper of the people changed that later when plague had increased they even co-operated with government officials in carrying out plague measures. 13

MALARIA:

Malaria was known to the ancients. Hippocrates in the 5th century BC gave classical description of malaria. Charaka and Susruta of the Ayurvedic period gave vivid descriptions of the disease and associated it with the bites of mosquitoes. In the ancient Italy, people associated Malaria with bad air, Malaria from which the name malaria is derived. In 1880, Laveran, a French Army Surgeon discovered the malaria parasite in Algiers, North Africa in 1891. Romanowski in Russia developed a new method of staining blood films which made possible complete studies of the malaria parasite. In 1894, Manson hypothesized that mosquitoes transmit malaria. It was confirmed in 1897 by Ronald Ross.
Malaria is a communicable disease which spreads in the community through the bite of female Anopheles Mosquitoes. Clinical symptoms of the disease are characterized by starting with shaking chill, followed rapidly with rise in temperature, with occasional head ache and nausea and fever with profuse sweating. In Mysore State Malaria struck and spread over in the Malnad region very frequently. Under the auspices of the international Health Division of the Rockefeller Foundation of America, a health survey of the state with special reference to Malaria and hookworm was undertaken in 1927 and for this purpose the services of Dr. Sweet of the same foundation was obtained.* Four medical graduates of the state were deputed for Training in Sanitation to America. As a result of the spleen survey conducted by Dr. Sweet three Malaria experimental stations were established one at Nagenahalli in Mysore taluk the second at Mudigere and the third at Hiriyur. ¹⁴

Malaria had been a disease of some concern in the districts in the past. In the earlier decades of this century itself anti – malaria work carried out by the Bangalore City Municipality like oiling of ponds and stagnant waters, filling up of disused wells, etc... The Public Health Institute conducted public health works, prepared vaccines and was investigating the epidemic diseases. In 1932 proposals were made to carry out anti – malaria operations in Bangalore City. Paris green for open water and Gambusia fishes for the wells were the methods used. The spleen survey conducted in the city from 1927 to 1932 recorded the spleen rate as follows: 23.2, 11.5, 8.7, 6.1, 0.6, and 0.7 respectively. The decrease in the spleen rate was due to the establishment of ant larval work in the city.
The Mosquito Control Programme was started by the Bangalore City Corporation in 1963 and in 1974; the urban Mosquito Control Programme with Central assistance came into being. Under this programme, there are one surgeon, one Health Officer, five unit Officers, 25 junior Health Supervisors, one Entomologist, two laboratory technicians, two insect catchers, 325 additional area workers and 19 other officials. Under Central Assistance Programme an additional staff of one Senior Biologist, 20 insect catchers and 451 area workers are working.

The National Malaria Control Programme was started in the district in 1958 and the district entered into the maintenance phase in 1964. There is a District Malaria Officer for the district who works under the District Health and Family Welfare Officer. The District Malaria Officer controls, supervises and issues instructions regarding the Malaria Control Programme in the district. The Malaria cases reported in the district during 1987 were only 73 of which 57 were from the Bangalore City and the rest from other Primary Health Centres of the district. In 1988, there were 71 malaria cases reported of which 50 were from Bangalore City. There were no cases from the P.H.C of Dommassandra and Apneal, and only one case from P.H.C Kaggalipura for the years 1986, 1987 and 1988. The following table shows the number of blood smears collected, examined and the Malaria positive cases reported in the district from 1980 to 1988 in the district.\textsuperscript{15}
TABLE NO – X
Report on malaria cases from 1980-1989

<table>
<thead>
<tr>
<th>Year</th>
<th>Blood smears collected</th>
<th>Blood Smears Examined</th>
<th>Number found positive to Malaria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>1,38,128</td>
<td>1,38,128</td>
<td>685</td>
</tr>
<tr>
<td>1981</td>
<td>1,80,015</td>
<td>1,80,015</td>
<td>1,017</td>
</tr>
<tr>
<td>1982</td>
<td>1,60,535</td>
<td>1,60,535</td>
<td>550</td>
</tr>
<tr>
<td>1983</td>
<td>1,62,805</td>
<td>1,62,805</td>
<td>258</td>
</tr>
<tr>
<td>1984</td>
<td>1,26,689</td>
<td>1,26,689</td>
<td>69</td>
</tr>
<tr>
<td>1985</td>
<td>1,50,990</td>
<td>1,50,990</td>
<td>66</td>
</tr>
<tr>
<td>1986</td>
<td>1,67,595</td>
<td>1,67,595</td>
<td>35</td>
</tr>
<tr>
<td>1987</td>
<td>1,24,600</td>
<td>1,24,600</td>
<td>73</td>
</tr>
<tr>
<td>1988</td>
<td>1,21,823</td>
<td>1,21,823</td>
<td>71</td>
</tr>
<tr>
<td>*1989</td>
<td>16,103</td>
<td>16,103</td>
<td>5</td>
</tr>
</tbody>
</table>

*Till September 1989 only.

The Bangalore City Corporation measures to control mosquito by spraying Pyrethrum and other chemicals in the Corporation area. During 1988 – 89 an amount of Rs. 53.25 lakhs was spent apart for mosquito control programme and Rs. 524.94 lakhs for Malaria Control Programmers.

**TUBERCULOSIS:**

Tuberculosis is a common infectious disease found everywhere in the world and especially in crowded dwelling places without proper light and ventilation. A study conducted in 1926 – 27 in the State on Tuberculosis by Dr. P.S Chandrasekhar reveals that Tuberculosis (T.B) patients were
found in Bangalore City, Anekal, Yalahanka, Sarjapur, Vartur, Settyhalli and other places of the district. Bangalore City alone contributed 21.4 per cent of the T.B patients reported in the State according to the study. It was also reported that males among Hindus and females among Muslims and Christians were suffering from the disease. According to the report of the study, more deaths from T.B were found in Aralapete, Ganjgarpet, Chamrajapet and other divisions of the Bangalore City. The number of deaths from the disease from 1913 to 1926 in Bangalore City was as follows: 16

144, 189, 192, 208, 296, 278, 291, 273, 266, 303, 319, 383, 391 and 327, respectively. In 192 there were no T.B. dispensaries or hospitals in Bangalore City and the patients were treated and admitted in the Victoria Hospital. To–day, there are isolation hospitals, T.B. Sanatorium and T.B. Demonstration and Training Centres in Bangalore City. During 1988–89, in Bangalore district 2,026 samples of sputum were collected for examination, out of which 150 new T.B. cases were detected as against 17,210 samples of sputum collected for examination and detecting 6,695 T.B. cases in 1987–88. B.C.G. vaccination against T.B. was introduced under the National Tuberculosis Programme during the post–Independence period and the vaccine is administered to children under immunization programmer. According to the State Report 1988–89 of Directors of Health and F.W. Services there were 68,000 T.B. cases in the district as in 31–3–1989. 17
LEPROSY:

Leprosy is an age-old disease and people are afraid of the dreadful appearance of the patients. The disease is curable by proper treatment. There is more public apathy about this disease and therefore the patients often hide the disease till it becomes chronic. There are both Government and Private agencies in the district engaged in identification of the disease and rendering curative measures. The Lepers Asylum is one of the special hospitals in Bangalore City started in 1845 for the leprosy patients. The National Leprosy Control (now Eradication) programme launched by the Government of India is in operation in the district, from 1954 – 55, with the objectives of rendering infectious patients non-infectious, to prevent the onset of deformities and to check the spread of the disease in the community. There is one Leprosy Officer for the district who co-ordinates the Leprosy work of private agencies in the district. The total number of leprosy cases recorded for treatment during November 1978 in the undivided district of Bangalore was 3,686 and Bangalore districts was endemic with a prevalence of five per 1,000 populations. And it was estimated that there were 12 to 15 thousand leprosy patients in Bangalore City. The Victoria Hospital, Bangalore was recording almost 400 new cases every year.  

SMALL POX:

British Physicians in Nineteenth Century India ranked small pox the most prevalent and destructive of all epidemic diseases. Small Pox accounted for several million deaths in the late nineteenth century alone amounting an average to more than one hundred thousand fatal cases a
year. But it was not just the prodigious mortality caused by small pox that
made it appear an exceptionally menacing disease there was also the
horrific nature of the disease itself. A third or more of these seized by
small pox died, usually within two weeks of the first symptoms of the
disease. But even those who mescaped from death were likely to be
disfigured or incapacitated for the rest of their lives—their faces
transformed into pockmarked lunar landscapes, the sight in one or both
eyes dimmed or destroyed through ulceration the cornea.¹⁹

In Mysore small pox accounted for 76,319 deaths from 1898 to
1914, the average annual mortality from this cause thus being 5,623 the
number of deaths for the seven years from 1917 to 1923 was 31,290
working out to an average of 4,470 per year.* The concentration of
Vaccination work in the affected parts is the only preventive measure
adopted. The government during 1890’s set up a committee to suggest
measures to be adopted to eradicate this disease. On the
recommendations of the committee the government appointed
Vaccinators in every taluks to vaccinate the people as a precautionary
measure. To this effect a law was passed in the year 1898 and made
vaccination compulsory. The Government appointed the vaccinators to
conduct vaccination in schools in the year 1909. When the government
passed compulsory vaccination act, the orthodox section of the society
demanded for its withdrawal, as they believed that the solution to the
small pox was to pray goddess Amma, There are numerous references to
demonstration against vaccination in various parts of mysore.* This sort
of developments created certain problems and consequently it took a few
decades to conduct vaccination programme successfully, particularly in rural areas.  

Small pox as an epidemic disease has been completely eradicated from the district. But its impact in the earlier years was very severe and the first sanitary measure was that of vaccination against this disease said to have been initiated by Abbe Dubois, a French Missionary around 1800. The last case of death due to this disease in the undivided district was reported only in 1974 and since then the districts is free from this epidemic. The epidemic was very severe in the district in between 1871 and 1874. The Government started administering vaccinations in the year 1855 and prior to that there were private vaccinations in the State. In 1880 – 81, there were four vaccinations in Bangalore City.

**CHOLERA:**

Cholera has been present in India since antiquity. In Ayurveda, it is mentioned as Vishnuchika and is clearly defined in “Susruta samhita” of the 7th century BC. In the first period: (prior to 1817) the disease was confined to the East, if not almost exclusively to India.

Cholera was one of the common communicable diseases. This was a serious intestinal disease characterized by sudden onset, profuse watery stools, vomiting, rapid dehydration acidosis and circulatory collapse. The causes for the spread of cholera were generally due to contaminated water and uncommonly contract by food and drinks contaminated by soaked hands, promities and fleas. Cholera usually occurred during the time of jathras, weekly fairs, festivals and famines.
Cholera entered the Mysore State mainly through pilgrims. The people of the state who visited shrines and holy places like Tirupathi, Srirangam and Kanchi were affected by cholera and transmitted the disease into Mysore State. The cholera occurred mainly in the eastern parts of the state and as many as 8,500 deaths occurred due to this disease during the year 1867. In the year 1870 cholera disease spread to Bangalore, Mysore and Hassan regions in the state.22

The history of cholera in the several districts bears evidence to the fact that fairs and pilgrim centers were points of cholera for the first time in Bangalore City sporadic cases of cholera also occurred amongst the warders of the central jail and in the servant’s quarters of the Victoria Hospital.

The out – break of cholera was very severe in the district in the later parts of 1860’s and the early years of 1870’s. The disease as an epidemic was very severe in 1866 – 67 in Bangalore City (peta) in Bangalore Cantonment area and again in September 1875 in the city. The disease as an epidemic is doing considerable damage to the human life continuously.

INFLUENZA:

Another epidemic like plague that swept the city in 1918 – 19 was influenza which broke out in Bangalore. It was imported from Bombay, during June 1918. It came to India from Spain. The first wave of the disease lasted for 6 – 8 months with lesser hazards but the second wave during October, 1918 caused heavy damage to the life in Bangalore City and the Cantonment as well as in the rural parts of the district. It has been
reported that the ten dispensaries and hospitals in Bangalore Cantonment treated 7,607 cases of influenza during this period. There were 49 deaths in Bowring Hospital and 52 in Lady Curzon Hospital due to this disease. From July to December 1918 there were 1,105 admissions and 124 deaths in the Military hospital due to this disease. (These are only sample figures; not of the whole city). In those days the disease was called ‘Spanish Fever’ or ‘Grippe Espangole’ 23

**Sanitation:**

In 1880’s saw profound changes in the administration of Public Health in India under Ripon Viceroy during 1880-1884. Ripon’s resolution on local self government of May 1882, established a majority of elected element on each municipal commission. The resolution on local self government established a graduation of local authorities. The smallest, the local board covered a basil, or sub-division of a district; it had responsibility for sanitation, education, public works, medical services and sometimes veterinary work.

The impact of local self government system upon sanitation differed from place to place. In Bengal there was a real demand for sanitary services and some willingness on the part of the people to pay for them. In Bombay and Madras province public health services were developed only because officials fastened them.24 on the eve of the Ripon reforms, municipal fund allotments to sanitation in all three provinces increased sharply. In Bengal, there was an increase in total sanitary allotments and all allotments as a percentage of municipal incomes. The slow evolution of public health and state medicine in India, the outbreak
of epidemics during 1896-1914 marked a critical departure from earlier enclavist attitudes and the narrow pre-occupation with European and military Health. Clearly, the measures taken in 1896-97, first in Bombay and then in towns and cities across India, involved an unprecedented degree of medical and sanitary intervention, unparalleled in the earlier and more tentative campaigns against smallpox and cholera. These measures paved the way for later, albeit more cautious measures and a greater commitment to the idea of public health and sanitation. Sanitary staff in the cities was strengthened; programmes of the public welfare and health education were initiated. In the three provinces of Bombay, Bengal and Madras allotments of funds to sanitation increased dramatically.

During the early years, plague epidemic provided the first opportunity for the wholesale clearance and alteration of indigenous dwellings deemed insanitary by European officials. Unprecedented number of buildings were destroyed and in some cases rebuilt. 24 In most cases, the effects of plague on attitudes towards clearance and the sanitary planning of cities were short lived, but in the larger cities, which had more substantial European population the effects were more enduring. The pace of sanitary progress was extremely uneven. The progress in sanitary reform was constrained by shortages in local revenue, the government’s financial stringency, and by the uncertain attitude towards sanitation displayed by the indigenous population. Rama Subban however asserts that the chief constraint upon sanitary activity was the attitude of the colonial government, which at every opportunity quashed the reforming initiatives of Indian Municipal Commissioners. 25
SANITATION IN THE STATE OF MYSORE:

The beginning of urban sanitary movement in Mysore state can be traced back to the year 1859. In that year thirty four influential householders of Bangalore city submitted a memorandum to Captain J.Puckle, the executive engineer of Bangalore division expressing their willingness to pay the taxes voluntarily and sought the establishment of a Municipality for Bangalore. Then Capt. J. Puckle forwarded the memorandum to the chief engineer of Mysore and sought his permission to sanction a Municipality for Bangalore. Then the chief engineer in Mysore, col. E. Lowford forwarded the letter to the chief commissioner. Accordingly on 6th May 1862 government issued an order towards establishment of Municipality in Bangalore. During the first meeting attended by nine members Capt. Hay proposes and sanctioned a tax at the rate of four annas per ankanam on the inhabitants of Bangalore for the purpose of improving the sanitary conditions of the Bangalore. During the year 1862 three municipalities were established on an experimental basis in the state. Chief Commissioner wrote letters to the Revenue superintendents of the three divisions, requesting them to submit their views on the practicability of establishing municipal bodies in the towns of their respective divisions. The superintendent of Chitradurga stated that the natives would not contribute a pie towards the cleanliness of their villages and that no permanent revenue could be raised from the sale of sites and no portion of the duty on tobacco could be appropriated for municipal purposes and he further suggested that fines levied by the magisterial and revenue departments, fines for cattle trespass and sale proceeds of unclaimed cattle might be credited to the municipal fund.
However there was favorable response from Ashtagrama division. Mr. R.S.Dobbs, superintendent of the division in his letter no 145, dated 6th May 1862, addressed to the Secretary of the Commissioner of Mysore expressed that the inhabitants of the division came forward to pay the Fax voluntarily. But the scheme broke down owing to the impossibility of recovering the self-imposed tax by unofficial agency.  

In other district headquarters municipalities could not come up but municipal funds had been established in every district headquarters. They were administered by Boards comprising of official and non-official members presided over by the Principal Officer of each district. The funds were derived chiefly from local taxes. Efforts were also made to set up similar institutions in the taluk or Kasaba where funds were raised by private subscriptions. By 1866-67 funds had been made available chiefly from local cess, sale of building sites and private contributions for the purpose of municipal conservancy in smaller towns. These funds were administered in some cases by the committees of the people of the town and in other by the Amildars of taluks. Though the operations were on a small scale the measures taken to improve the sanitary condition of the towns produced good results. However there was no regularly organized conservancy establishment in any of the taluks of Nandidurg division. The conservancy works were undertaken in some of the Kasaba towns of the Bangalore District. 

To develop awareness about cleanliness among the people in towns and villages, a list of offences punishable by the Amildar under the Municipal rules was published in the Mysore gazette dated 16th Aug.
1869. For the offences an Amildar was empowered to fine up to Rs.5 without reference to and confirmation by the Deputy Superintendent. All these rules were extended to all taluks and Kasaba places in the provinces.

The introduction of the Bangalore Town Municipal Regulations of 1871 provided for a code of Regulations. The code had 250 sections and sections from 94 to 178 referred to the general conservancy of the town. The other sections dealt with lighting and water supply, registration of births and deaths, powers to make bye-laws. The regulation was amended in 1888 and it was extended to the town of Mysore Municipality. The regulation makes better provision for the Police, Conservancy and improvement of the Mysore town. \(30\)
NOTES AND REFERENCES

2. Ibid.
4. Ibid.
8. Ibid.
13. Ibid.

18. Ibid.


23. Ibid.


25. Ibid.