THE COLONIAL ENCLAVES IN PUNJAB DURING THE OUTBREAK OF EPIDEMICS

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Abstract

Epidemics have afflicted the world regularly causing large scale mortality and affecting the social fabric and economic condition of the countries. In India, Punjab was affected recurrently with the outbreak of epidemics of smallpox, cholera, malaria and the plague. More than a million people perished in these epidemics. Since Punjab was an important province for the British due to its strategic location, agricultural production and being the chief recruiting ground for military, the British concentrated all their efforts to control and deal with the epidemics. Their handling of the epidemics highlighted their colonial prejudices and racialism. While every effort was taken both in terms of finances and manpower to keep the colonial enclaves of cantonments, civil lines and the summer capital of Shimla free of epidemics, the situation for the general native population was opposite. The colonial priorities of keeping the British troops, officials and their families free of diseases got highlighted in the manner in which the British dealt with the epidemics.

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The concept of public health hardly existed anywhere in the world until the nineteenth century. The process of industrialisation resulted in rapid growth of urban centres. With the influx of population, these overcrowded urban areas were unhygienic and insanitary which created conducive conditions for the outbreak of various diseases. The unsanitary conditions resulted in the growth of the sanitary reform movement in Britain. The lead for this was taken by health campaigners like Edwin Chadwick who presented a report in 1842 entitled 'The Sanitary Condition of labouring Population' in which he brought out the relationship between the insanitary conditions and outbreak of epidemics. This paved way for the introduction of legislative measures. In 1848, the Public Health Act was passed which established a central board of health. It also gave power to the local bodies to improve the sanitary conditions to prevent the outbreak of diseases. This act was followed by the Acts of 1858 and 1872 which emphasised on the development of public health institutions.[1]

The nineteenth century also witnessed the outbreak of several epidemics in Britain. It was seen that the state was unable to handle these effectively as the causal agents of the epidemics were unknown. This led to a growth of the study of diseases and medical science. The discovery of the relationship between germs and outbreak of disease by Louis Pasteur and the role of contaminated water in causing cholera by

[1] John V. Pickstone, 'Dearth, Dirt and Fever Epidemics: Rewriting the History of British Public Health, 1780-1850', in *Epidemics and Ideas*, ed. Terence Ranger and Paul Slack, Cambridge University Press, Cambridge, 1995. pp 138-42.

Robert Koch also contributed to the importance of hygienic living conditions. This necessitated the effective implementation of the provisions of the Public Health Acts which led to the formation of the local boards of health. These local boards were required to look after hygienic housing conditions, proper sanitation and clean water supply to reduce the outbreak of diseases. Efforts were also made to improve the sewage conditions and construct modern sewer systems to reduce the outbreak of cholera and typhoid. These state measures were also accompanied by disseminating information about the importance of personal hygiene, importance of sanitary conditions and vaccination amongst the general public. Such measures like improving the sanitary conditions and development of public health infrastructure helped in transforming the public health system in Britain.[2]

In India, by the middle of the nineteenth century, the British empire had expanded considerably. Larger parts of India were under the direct influence of the British. To maintain control over these Indian territories, a large number of British officials along with their families, military officials and troops had settled in India. The public health concerns which had emerged in Britain in the nineteenth century filtered down in India with the coming of the British administrators. Certain British administrators believed that Britain had the "divine right and duty to spread the gospel of health in India," and to bring about improvements in society and economy. They also believed that improving the public health went hand in hand with the economic and social improvements.[3] To start with, the public health policy in India revolved around improving the health of the British soldiers. Medical institutions and hospitals meant

[2] Mark Harrison, *Public Health in British India: Anglo Indian Preventive Medicine 1859-1914*, Cambridge University Press, New Delhi, 1994. pp 61, 231-34.

[3] Mark Harrison, *Climates and Constitutions: Health, Race, Environment and British Imperialism in India 1600-1850*, Oxford University Press, New Delhi, 2002. pp 159-172.

only for the British were set up in India. In the 1830s, the British started intervening in matters of sanitation. This grew after the revolt when the empire came under the direct control of the Crown. Local committees were formed to improve sanitation in urban centres. In Punjab, in 1863, the Report of the Royal Army Sanitary Commission highlighted the unhygienic conditions of towns and mentioned that these produced conducive conditions for the outbreak of diseases. The Report also suggested that sanitary commissioners be appointed to prevent the outbreak of epidemics by improving hygiene and sanitation. It also proposed that municipalities should be set up in cities and towns to improve their conditions.[4]

From 1868, municipalities were set up in the urban areas which looked after sanitation, water supply and drainage. By 1880s, both the municipalities and the provincial government were responsible for public health issues which included sanitation, water supply, sewerage, drainage, medical establishments, and vaccination. Due to lack of funds allocated for public health for the entire population, the public health policy for the people at large was not very effective. However, there was no constraint of funds for the British populace.[5]

The British felt the need to provide clean and hygienic environment to maintain the general health of the British and to keep them free of tropical diseases. Therefore, they channelised their efforts to provide best sanitation and medical facilities to the military and civil officials and their families followed by the troops. As a result of this outlook, the Imperial capital, cantonments and civil lines received priority in

[4] John Chandler Hume, 'Colonialism and Sanitary Medicine: The Development of Sanitary Health Policy in the Punjab,1860-1900, '*Modern Asian Studies,* Volume 20, 1986, Cambridge University Press, Cambridge. p 709.

[5] Anil Kumar, *Medicine and the Raj: British Medical Policy in India 1835-1911*, Sage Publications, New Delhi, 1998. p161

public health matters. Along with these, the hill stations which acted as an abode from the summer heat and where the children of the officials resided and studied also received special treatment from the British. The hill stations were also considered as a solution to the problem of protecting the health of the British whose bodily constitutions were unsuitable for the Indian climate. As a result, officials, their families and a large number of garrisons were stationed in the "salubrious areas."[6] These areas were followed by the urban centres and towns. The rural areas were at the lowest priority in matters of public health and sanitation. The priorities of the colonial state got reflected in the working of the public health and medical systems.[7]

Various epidemic outbreaks have affected the human society causing widespread mortality. The epidemic outbreaks in addition to claiming lakhs of lives resulted in administrative problems, migration of people and affecting trade and agriculture. Since sanitation and health were the concerns of the state after the introduction of the public health acts, the British in India considered their responsibility to handle the epidemics. In doing so, their colonial priorities of protecting their own people and their residential areas along with economic and political gains got highlighted.

The Punjab was one of the worst affected provinces of British India from epidemics. Epidemics of malaria, cholera, smallpox and the plague broke out recurrently affecting almost the entire province.[8] More than fifty-one lakh people died from malaria epidemics in the Punjab under the British. Smallpox affected twenty-seven

[6] Mark Harrison, *Climates and Constitutions: Health, Race, Environment and British Imperialism in India 1600-1850*, Oxford University Press, New Delhi, 2002. pp 159-168.

[7] G. Balandier, 'The Colonial Situation: A Theoratical Approach,' in *Social Change: The Colonial Situation,* ed. Immanuel Wallerstein, John Wiley and Sons, New York, 1966. pp 34-66

[8] David Arnold, *Colonizing the Body : State Medicine and Epidemic Disease in the Nineteenth Century India*, Oxford University Press, New Delhi, 1993. p164, 201.

districts of the province and claimed more than eight lakh lives while cholera claimed around four lakh lives. The epidemics of the plague broke out regularly from 1897 to 1919 affecting the entire province. The plague was amongst the most dreaded and severe epidemic which resulted in the loss of more than thirty lakh people from the Punjab province alone.[9]

It was seen that the mortality caused by the epidemics in the rural areas of Punjab was much higher than mortality in the urban areas. This difference between the rural and urban mortality rates got more pronounced in the years of severe epidemics. For instance, during the malaria epidemic of 1882, the rural death was 18.50 per mille and the urban death rate was 17.14 per mille. In 1919, the rural death rate per mille was 19.20 while the urban death rate was16.12. A similar trend was seen during the cholera outbreaks. In the epidemic of 1890, the rural mortality rate per mille from cholera was 7.72 while the corresponding figures for urban areas was 1.82. In 1914, it was 4.1 per mille for rural areas while for urban areas, it was 1.69. In the most severe epidemic of plague in 1907, the rural mortality rates per mille was 31.76 while the urban rate was 16.9. Similarly, in 1913, the death rate per mille was 3.36 in the rural areas and 2.3 in the urban areas. In the years of severe epidemics, the mortality rate per mille in the rural areas was 6.30 in excess of the urban mortality rates.[10]

This difference in the mortality rates from the epidemics in the rural areas and the urban centres which included the cantonments and the civil lines reflected the priorities of the colonial state. The British wanted to protect their population and

[9] *Census of India, 1921*, Volume XV for Punjab and Delhi, Civil and Military Gazette Press, Lahore, 1923. pp 10-12.

[10] *Administration Report, 1896-97*, p 248. Also, *Administration Report, 1919-20*, p125; *Administration Report, 1931-32*, p 110. Also, *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, July 1894, Serial Number 37, pp 131-33.

hence channelised their efforts to protect these areas. Limited funds were allocated for the rural areas due to which drainage work and filling of cess pools could not be carried out effectively which increased the incidence of malaria.[11] Lack of funds also prevented the construction of platforms and parapets around the mouth of wells in the rural areas which resulted in the contamination of water and consequently recurrent outbreaks of cholera epidemics. Also, the byelaws to check adulteration of food and for the sale of eatables were not implemented in the rural areas. Limited number of medical institutions including dispensaries along with shortage of medical staff in the rural areas also contributed to greater incidence of diseases as information about the spread and prevention of diseases could not be effectively disseminated.[12]

In contrast to the measures carried out in the villages, the British enclaves consisting of cantonments, civil lines and hill stations received special attention. These colonial enclaves were the abode of the "managers of the colonial system." They were stationed at a considerable distance from the dwelling units of the natives both for administrative and health reasons. Until the late nineteenth century, it was believed that there was a relationship between bacterial infection causing diseases and aerial distance. Therefore, natural barriers like water bodies and green belt of orchards, trees and gardens separated the colonial enclaves from the "unhealthy and insanitary abode" of the natives. Also, the enclaves were spread over several acres, had wide roads and spacious bungalows which were in contrast to the narrow, congested kutcha roads and houses of the natives. The British administrators themselves acknowledged that "the streets are narrow and dirty in towns and owing to the want of sewers and drains are impassable in rains while the cantonments are commodious and consist of

[11] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, July 1890, Serial Number 29, p48.

[12] *Proceedings, Boards and Committes Department*, 1916, Serial Number 37, p 74.

fine range of well-ventilated buildings." The hill stations were developed on the assumption that there were less chances of outbreak of typhoid, malaria and cholera in the elevated areas.[13]

The cantonments housed the British troops and military officials along with their families. In order to protect the soldiers from diseases, special measures were carried out in and around the cantonments. Measures were taken to reduce waterlogging caused due to irrigating the rice crop. In several areas around the cantonments, orders were passed to prohibit rice and sugarcane irrigation.[14] In some other areas, water rate was increased considerably to dissuade the people from cultivating rice. In certain areas, cultivation of rice and sugarcane was replaced by indigo. In 1892, orders prohibiting the irrigation of Kharif crops by Swat canal around the cantonment of Mardan were issued. Similar orders prohibiting the cultivation of crops in the villages around the cantonments of Dera Ghazi Khan, Kohat and Bannu were also issued.[15]

In addition to the distribution of quinine amongst the British, measure for the destruction of breeding grounds of mosquitoes were carried out. In 1901, at Mian Mir Cantonment, an investigation was carried out to look into effective ways to control malaria. This investigation emphasised on destroying the breeding grounds of the mosquitoes. Another investigation was carried out in 1908 which highlighted a relationship between the incidence of malaria and heavy rainfall, canal irrigation and faulty drainage. Thereafter, measures for destroying the malarial mosquitoes were

[13] Mark Harrison, *Climates and Constitutions: Health, Race, Environment and British Imperialism in India 1600-1850*, Oxford University Press, New Delhi, 2002. pp 159-168.

[14] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, January 1894, Serial Number 36, p22.

[15] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, May1896, Serial Number 40, pp 71-73.

carried out. Water collected on streets and depressions was drained, pits were filled up, ponds, tanks and swamps were oiled and wild growth of plants was cut.[16] During the second world war, when there was a shortage of quinine, cantonments were sprayed with DDT to destroy mosquitoes.

In order to reduce water-logging and breeding of mosquitoes, drainage schemes were introduced. A drainage project was started in Rawalpindi and Sialkot cantonment in 1885. Similar drainage schemes were carried out in British enclaves of Ludhiana and Ferozepur and Jalandhar. Around Rs 1.5 lakh were sanctioned for the drainage project at Rawalpindi. By 1915, drainage work was either completed or was in progress in the areas of Delhi, Ambala, Jhelum, Faisalabad, Murree, Amritsar and Ferozepur.[17] It may be pertinent to add that while money was sanctioned for these drainage schemes, in other areas like Karnal, Moga, Hoshiarpur and Moga, the drainage projects were delayed or stopped due to war and increased cost of materials. The British administrators themselves mentioned that since the drainage schemes were expensive and long term, they were carried out half-heartedly.[18]

The British adopted various measures to protect the Europeans and the British from smallpox. To prevent the spread of smallpox, the British laid emphasis on segregating

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[16] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, January 1915, Serial Number 85, pp 107-08.

[17] *Proceedings, Boards and Committees Department*, 1903, Serial Number 14, p 36. Also, *Proceedings, Boards and Committees Department*, 1903, Serial Number 26, p 210; *Proceedings, Boards and Committees Department*, 1906, Serial Number 26, pp 168-70; *Proceedings, Boards and Committees Department*, 1913, Serial Number 34, p 21; *Proceedings, Boards and Committees Department*, 1910, Serial Number 31, p 3.

[18] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, January 1911, Serial Number 77, pp 88-89.

the sick until vaccination was considered as an effective means. A considerable difference was seen in the manner of segregating the natives and the British. The natives were segregated in a grass hut or a tent which was set up at a distance from the village. However, in the enclaves, smallpox patients were segregated in isolation wards in the hospitals. For instance, at Lahore, the sick people were segregated in Dr Bilbeys old hospital until a new hospital was constructed was this purpose. In Shimla also, a hospital for isolating the sick inflicted with smallpox was set up at Boileauganj.[19] In the 1880s, emphasis was laid on vaccinating the people to prevent the outbreak of smallpox. To start with, for the natives, arm to arm vaccination was carried out a central place. However for the British, it was carried out in their houses. The arm-to-arm vaccination was replaced by the calf lymph vaccine but the manner of administering remained the same.[20] A separate administrative framework was created to carry out vaccination. A superintendent general was appointed who supervised the working of the Indian vaccinators working under him. Thereafter this work was taken over by the sanitary commissioner who was assisted by a deputy sanitary commissioner and district medical officers. In the late 1880s, the cantonments were placed under the cantonment staff who carried out vaccination work with much zeal.[21] Also, in order to make vaccination compulsory, a bill was introduced to prohibit the practise of variolation in Punjab and to replace it with vaccination. This bill was passed as the Vaccination Act. To start with, the

[19] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, March 1889, Serial Number 26, pp 37-38. Also, *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, January 1913, Serial Number 81, p211; *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, March 1915, Serial Number 85, p63.

[20] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, June 1880, Serial Number 12, pp 342-43.

[21] *Proceedings, Home: Public Health,* 1936, Number 2, p3.

Vaccination Act was implemented in the cantonments, the summer capital and certain cities having civil lines. It was gradually extended to other urban areas. It was only in 1929, almost forty years after the introduction of the Vaccination Act that it was implemented in rural areas.[22]

The British adopted an ambivalent attitude to handle the cholera epidemics. This was largely due to the fact that there was a conflict of opinion regarding the causal agent of the disease. As a result of this, certain administrators propagated improving the water supply while others believed in making sanitary improvements.[23] The British thus, continued to cordon off the infected areas to prevent the spread of infection. Enclaves around the infected areas were placed under strict cordon where "sufficient" number of people were deployed to check the breaking of cordons. Colonial enclaves of Jalandhar, Ferozepur, Mian Mir, Murree and Peshawar were placed under quarantine. The natives who resided near the infected villages were not allowed to go to the cantonments to work till the officials removed the cordons. During the outbreak of 1872, the military stations of Mian Mir, Murree, Ambala, Subathu and Dagshai were placed under strict cordon.[24] A large number of subordinate staff was deployed to prevent the breaking of cordons. These included deploying sentries and native troops. To prevent the breaking of cordon around Mian Mir, around 132 native soldiers and more than forty sentries were deployed. Similarly, around Ambala, forty-five native soldiers, forty-seven sentries and forty-two constables were

[22] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, August 1888, Serial Number 25, p 89.

[23] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, July 1897, Serial Number 44, p 609.

[24] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, November 1874, Serial Number 6, pp 457-58.

positioned.[25] To prevent the natives from entering the cantonments, the roads around the cantonments were diverted. During the epidemic of 1876, in order to protect the troops and officials residing in Muree, quarantine was imposed along the river Indus.[26] The British also appointed committees whose function was to inspect the sanitary condition of villages within a distance of five miles from the cantonments. The administrators considered the cordons as a "means of protection for the cantonments."[27]

In the rural areas, efforts were made to improve the water supply to prevent the recurrent outbreaks of cholera. From 1895, the wells were disinfected using alum, potassium permanganate and lime. The mouth of the wells were provided with platforms and parapets in order to prevent contamination of water. From 1903, the annual cleaning of wells was started.[28] After the passing of the Government of India Act of 1919 and the formation of local governments in the provinces, the matters relating to water supply were handed over to the rural sanitary boards who installed water pumps in certain villages. However, in the civil lines and cantonments, emphasis was laid on providing clean drinking water to the residents. For this, underground pipes were laid, large reservoirs were constructed and additional wells were dug. For instance, in Ambala, the water reservoir was chlorinated.[29] As early as 1878, water supply projects were started in Delhi and Lahore. Water supply projects

[25] J. M. Cunningham, *Cholera Epidemic of 1872*, Government Printing Press, Lahore.pp26-27.

[26] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, October 1876, Serial Number 8, p 660.

[27] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, November 1874, Serial Number 6, pp 459-60.

[28] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, September 1905, Serial Number 65, p 59.

[29] *Proceedings, Home: Public Health*, 1938, Number 195, pp 8-10.

for Rawalpindi were undertaken in 1887.[30] In the Murree Cantonment, water supply scheme began in 1890 and Dalhousie in 1891.[31] The British sanctioned a sum of Rs One Lakh for the Murree water supply scheme. In 1902, additional wells for Lahore were dug, pumping engines were installed in Lahore water works and Ludhiana water supply scheme was undertaken. A grant of Ra 5,50,000 was allocated for extending the water works of Delhi.[32] Although the British allocated funds for improvements and extension of water supply projects in colonial enclaves, for other places like Moga, Rewari and Khushab, the government grants for water supply schemes were held back due to "financial Stringency" which resulted in delaying the water supply schemes.[33]

The epidemics of plague which raged in the province of Punjab recurrently for almost twenty years was treated as a crises situation by the British. It not only resulted in large scale mortality but also adversely affected the economy. The British adopted strict and harsh measures to contain the disease. Special measures were adopted in the colonial enclaves and the summer capital in an attempt to keep them free of the disease.

During the outbreak of the plague, the major consideration of the British was to prevent any contact between the infected and the uninfected areas. Consequently, the infected villages were evacuated, residents moved to the camps located on the

[30] *Proceedings: Boards and Committees Department*, 1893, Serial Number 16,pp 5-7.

[31] *Proceedings: Boards and Committees Department*, 1901, Serial Number 23, pp 262-23.

[32] *Proceedings: Boards and Committees Department*, 1907, Serial Number 28, p 3. Also, *Proceedings: Boards and Committees Department*, 1912, Serial Number 33, p 31.

[33] *Proceedings, Home: Public Health*, July 1929, Number 99, p 5. Also, *Proceedings, Home: Public Health*, July 1930, Number 139, p 43; *Proceedings, Home: Public Health*, July 1936, Number 42, p 7.

outskirts of villages, their dwelling units disinfected and the plague infected areas were cordoned off. The villagers were asked to move to the camps with their personal belongings and supplies of about two months. The camps were temporary structures which could not accommodate the entire population due to which many people took shelter in the shades of trees. Meanwhile, the houses in the villages were disinfected by soaking the walls and ceiling with phenyl. A hole was made in the roofs to expose the articles and house to sunlight. Articles and furniture were often destroyed and burnt during disinfection.[34] Medical officials and administrative staff were appointed to carry out the measures in addition to the existing administrative framework.[35] For the Cantonments, special officials were appointed. The Cantonment was divided into wards which was looked after by a committee. This committee comprised two members who worked with the Health officer. They visited their wards and propagated the advantages of sanitary measures. They reported the cases of the plague to the health Officer and supervised the plague measures. The committee members also looked after providing accommodation in makeshift hospitals for the sick. They were also required to handle any complaints regarding poor facilities or lack of arrangements for the sick.[36]

Emphasis was laid on early detection of the disease. Once the incidence of the disease was reported and confirmed, the infected people were isolated either in their homes or in the hospitals. The sick could be accompanied by three attendants during

[34] Major E. Inglis, *Report on the Outbreak of the Plague in Jullundur and Hoshiarpur Districts 1877-98*, Punjab Government Press, Lahore, 1898. p2, 23-45.

[35] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, June 1898, Serial Number 260-61, pp 1-2.

[36] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, September 1898, Serial Number 121-29, pp 2-3.

segregation. Those who came in direct contact with the sick were also isolated in the hospitals or observation camps. They were examined for ten days from the date of death of the sick or recovery to be sure that they were not infected. The Cantonments were also protected from the people who came there to work from neighbouring areas. Every employer was asked to give information about his workers who came from plague infested areas.[37] Restrictions were also imposed on the movement of people. All gatherings for social or religious purposes in the vicinity of the cantonments were prohibited.[38] The Commissioners of the Cantonments were given executive powers to stop the holding of fairs. For instance in 1902, the Commissioner of Rawalpindi cancelled the holding of the Barri Latif Shah Fair at Nurpur. Similarly, the officials at Jalandhar and Lahore issued orders to prohibit the holding of the Basant fair and Charan ka Mela respectively.[39]

Movement of articles and rail passengers into the colonial enclaves was also regulated. The articles had to be specifically packed and labelled highlighting the nature of the contents. These articles were examined either at an octroi post or railway station before they reached the cantonment. The consignee was called to these areas to see the inspection being carried out and if allowed, he could take it to the cantonment.[40] Those travelling by trains were medically inspected by Assistant Surgeons and women Hospital Assistants either in the trains or on the railway

[37] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, September 1898, Serial Number 121-28, p 4.

[38] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, May 1901, Serial Number 134-35, p 1.

[39] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, February 1902, Serial Number 4-11, pp 1-3.

[40] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, October 1899, Serial Number 32-33, p1.

platforms. The clothes and luggage of the passengers was checked. All those who were infected with the plague or were likely to be the carriers of the infection were detained and disinfected while others were allowed to proceed with their journey.[41]

The British accorded special privilege to Shimla and used their manpower and resources in abundance to prevent the outbreak of epidemics. Shimla was not only the summer capital of the British but also the summer headquarters of the Punjab province. In the early twentieth century, when Delhi became the capital of the British Empire in India, the importance of Shimla increased. The families of the British officials resided here and the children studied in and around the hills. To protect this British population, during the cholera epidemic of 1875, travellers coming from the plains were medically examined by the hospital assistants at Kalka. This prevented the spread of infection not only in Shimla but also in the military stations of Dagshai, Kasauli and Subathu.[42]

The Lt Governor of Punjab considered carrying out sanitary improvements in Shimla which was the "residence of many months of Supreme Government at Imperial cost." Thereafter, an amount of Rs 5 lakh was allocated to carry out sanitary improvements in Shimla. This was followed by sanctioning of Rs 7 lakhs by the Punjab Government to improve drainage, water supply and sanitation. To improve the conditions of the slaughter houses and public toilets, a sum of Rs 25,000 was sanctioned in 1877. Two years later, another Rs 2 lakhs were allocated for improving conservancy in the town. New toilets and drains were constructed and repair of old ones was carried out. For the construction of a new sewage system, a sum of Rs 1 lakh was sanctioned.

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[41] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, May 1898, Serial Number 69-71, p 3.

[42] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, March 1874, Serial Number 6, p 132.

Improvements in the sanitary conditions were accompanied by improvements in water supply. Pipes were provided in the houses for supplying water in 1875.[43] A new water supply project in which water from reservoirs near Shimla flowed into the town through iron pipes was mooted. The British sanctioned grants for this project following which it was completed in 1883.[44] This project was extended to cover the area of Sanjauli in 1883. Another water works project to cover the upper areas of the town was started at a cost of Rs 2,70,000. Water supply extension scheme was started in 1893 for which a grant of almost Rs 4 lakhs was sanctioned.[45] Even after the formation of provincial government after the Act of 1919, special treatment meted out to Shimla continued. In 1920, funds were allocated for water extension scheme and thereafter in 1936, a sum of Rs 27 was given to start a new water supply scheme.[46]

As mentioned above, the plague was considered as the most dreaded epidemic. The British used their maximum resources, energy and manpower to keep the summer capital free from the disease. To do so, the measures adopted in Shimla were unprecedented in scale. In the initial years of the plague epidemics, the markets and the houses were cleaned, garbage was removed regularly, disinfection and whitewashing was carried out. The bakeries, shops and slaughter houses were

[43] *Punjab Government Civil Secretariat Proceedings, Home,* October 1875, Serial Number 7, pp 778-79.

[44] *Proceedings, Boards and Committees Department*, 1893, Serial Number 16, p9.

[45] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, October 1875, Serial Number 7, p 774.

[46] *Proceedings, Boards and Committees Department*, 1920, Serial Number 41, p 15. Also, *Proceedings, Home: Public Health* 1936, Number 129, pp 4-5.

regularly inspected and their sanitation was improved.[47] Old drains, gutters and bathrooms were repaired and forty-two new bathrooms and around fifty urinals were constructed. In the shops, rat traps were laid.[48]

The nearby areas consisting of thirty-nine villages, washermen localities and the lodging houses were regularly inspected. All those who came from the plague infested areas were segregated by the police and kept under observation for fifteen days to see for any signs of the disease. Inspection posts were set up at Dharampur, Kalka, Tara Devi and Sairi for medically examining the workers.[49] The native rulers who had their estates in the vicinity of Shimla like the rulers of Nalagarh and Bilaspur were asked to examine all those who intended to travel to Shimla and detain all suspicious cases. Even the Government officials who came from different parts of the country were kept under observation for ten days to look for the signs of the disease. Restrictions were also placed on the native rulers who intended to travel to Shimla either for work or for escaping from the summer heat in their summer residences. The native rulers were asked to take permission from the Government to visit Shimla. They were also medically examined along with their entourage in their carriages or salons.[50]

[47] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, July 1898, Serial Number 421-72, p 9.

[48] *Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary*, April 1911, Serial Number 10-16, pp 1-7.

[49] *Punjab Government Civil Secretariat Proceedings, Home : Medical and Sanitary*, July 1898, Serial Number 421-72, p 9.

[50] *Punjab Government Civil Secretariat Proceedings, Home : Medical and Sanitary*, June 1900, Serial Number 14-15, p 3.

In dealing with the epidemics, the colonial priorities of the British came to forefront. They were generally insensitive to the needs of the local population. Their handling of the epidemics and the measures adopted to combat and prevent them were shaped by economic considerations. They were more keen to preserve the health of the people of their own race, as a result of which, they used maximum resources at their disposal to keep their enclaves free of diseases. The racialism was visible on the surface in their handling of the epidemics and their paternalistic attitude was shed. For the areas which were dominated by the natives, the British were more concerned with the economic cost of the measures rather than their effectiveness. However, when it came to the colonial enclaves, neither manpower nor resources were of any deterrence in preventing the outbreak of the diseases. In their dealing with the epidemics, the colonial enclaves received a special status and were treated as a category apart due to which the general population continued to suffer both from the colonial rule and the epidemics.

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