

“Diseases and Medicine in Colonial Jharkhand (1865-1900)”

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DECLARATION

I hereby declare that the work embodied in this dissertation entitled “Diseases and Medicine in Colonial Jharkhand (1865-1900)” is carried out by me under the supervision of Dr. B. Eswara Rao, Department of History, University of Hyderabad. I clarify that the work presented in this dissertation is, to the best of my knowledge and belief, original, except as acknowledged in the text, and that the material has not been submitted, either in whole or in part, for a degree at this or any other university.

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CERTIFICATE

(For M.Phil. dissertation)

This is to certify that the thesis entitled “Diseases and Medicine in Colonial Jharkhand (1865-1900)” submitted by Indranil Pramanik, bearing Reg. No. 19SHHL06 in partial fulfillment of the requirements for the award of the Degree of Doctor of Philosophy in History, is a bonafied work carried by him under my supervision and guidance. This thesis is free from plagiarism and has not been submitted previously in part or in full to this or any other University or Institution for award of any degree or diploma.

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Introduction

Colonial Jharkhand comprised the Chota Nagpur division, Santhal Pargana sub-division from the Bhagalpur division, and two princely states of Seraikela and Kharsawan. The whole region became a home of several Adivasi communities i.e. Oraons, Mundas, Hos, and Santhals. The geographical name of Jharkhand is relatively new and contemporary. Historically, it was a significant region that shares a different climate, landscape, and flora-fauna however, it escaped from the gaze of the colonial state as it was less important from the politically and economically point of view. During the initial years of the colonial age, it played the role of a buffer zone amid the Maratha Empire and British. Later on, the colonial state expanded its direct authority over the region and, in this process, confronted extreme confrontation from the Adivasi communities. Apart from this, the Europeans encountered difficulties with the unfamiliar climatic conditions, landscape, and spread of endemic and epidemic diseases in Jharkhand. The colonial official accounts quite often discussed and reported these difficulties and repeatedly accused the hilly and *Jungly* terrains of restricting the introduction of the ‘rule of law’ as the rebels hide in the inaccessible areas where the British could not go in. On the other hand, diseases, particularly fever, repeatedly ravaged the European forces and, at times, broke their morale. The practical challenges compelled the colonial authority to follow a rule different from other parts of the Bengal presidency. As consequence, the British created both the non-regulatory areas and the Government Estates in this region. Further, in many instances, the colonial authority tried to appropriate the existing ruling hierarchy of *manki-munda* as the climate and diseases did not allow them to establish direct rule in their initial days except in a few urban pockets, such as Hazaribagh and Chaibasa.

Several works studied the socio-economic, cultural, and political history of Jharkhand however, a crucial space has been left to study the history of diseases-epidemics and the

colonial perception of Jharkhand as a distant land. At a point when the climatic difficulties coupled with the colonial authority's lack of knowledge of Jharkhand, the British undertook two crucial projects here. Firstly, they tried to appropriate the hostile landscape as per their convenience. Secondly, they created a body of officials' agencies to accumulate knowledge of the land and its people, their socio-cultural and religious values, economic structures, the topography of the region, and the prevalent diseases. The sanitary and public health department played a vital role in both projects. As a part of these projects, the government launched various health programs from 1865 onwards aiming the improvement of the living conditions of Europeans and natives centred around the colonial enclaves. They cut down the *Jungly* areas around the enclaves and thus reappropriated the landscape as inhabitable. Additionally, the medical authorities played a more significant role in accumulating knowledge on the 'natives' localities of Jharkhand. The registration agencies helped to create a solid body of knowledge and also diffused the colonial presence in a diverse and hostile area. Apart from the knowledge gathering processes and the registration agencies, the duality of negotiation and oppression of the colonial state became most apparent. This dissertation aims to understand this phenomenon too. It can provide us with a better understanding of the colonial 'governmentality' and how did the colonial authority diffuse their presence in the remote areas of a hilly and jungle landscape through indirect means.

The main objectives of this research are to overcome the current limitations of the historiography of colonial medicine in India. In process, it aims to trace the history of cholera and smallpox and subsequent colonial interventions in a neglected fringe landscape. It further intends to assimilate the top to down and down to top approaches and narrate the native experiences of western medical intervention. The question of colonial legacy would indeed receive proper attention. But the legacy was under process in the nineteenth century, and

therefore, this research principally aims to outline the colonial limitations in diffusing western medical ideologies by departing from the question of colonial legacy.

The question of hegemony has become important in the medical history ever since Arnold published his work. However, the use of a homogenous version of hegemony without any regional modification can create misconceptions as all the regions had their own speciality, and the colonial regime addressed them differently. Jharkhand was no exception. Therefore, it would rather be a foul attempt to interpret the hegemony of Western medical practices in Jharkhand through a strict implication of the Gramscian model that many of the scholars had utilized lately. In Jharkhand, the chances of diffusion of the worldview by a ruling class and spontaneous consent of the greater population is highly unprobeable.¹ British did not have full access to Jharkhand throughout the nineteenth century, and the traditional ruling powers largely lost their powers to the new ruling units. Even though it is not one of the main focuses of this dissertation, but it will shortly describe the role of dominant and rising middle classes in Jharkhand in the nineteenth century. Further, it would focus on the colonial negotiation and oppression to understand the nature of the aimed hegemony and the extent of its success.

The study of medicine as a ‘tool of empire’ came in prominence after the advent of postcolonialism during the second half of the twentieth century. However, the interpretation of medicine in the colonial context is significantly different than the metropolitan or European context, as the colonizers had locally modified their policies through negotiation and oppression. These local modifications created a set of diverse medical initiatives that often differed from division to division, from province to province. Therefore, the attempt to create any universal experience can mislead us as it embodied the chances of local experiences being overlooked.

¹ Antonio Gramsci, *Selections from Prison Notebooks*, eds. Quintin Hoare, Geoffrey Nowell-Smith, (London: Lawrence and Wishart, 1971), 12.

In the Indian context, most existing works are either written from a pan-Indian perspective or centered the metropolitan towns and provinces. Thus, these works procreate an aloofness and ignorance towards the fringe landscapes that had less importance to the colonial authority and hence treated unequally. On the other hand, the term metropolitan is quite diverse and can have multiple layers. In the context of India, the scholars consider the England or Europe as the metropolitan. But there was enormous heterogeneity within India as all of its provinces and divisions did not receive an equal attention during the colonial rule. Therefore, it is essential to redefine the concepts of metropolitan-periphery. As a part of this heterogeneity of the metropolitan-periphery context, this dissertation has tried to study the periphery within a periphery. This term periphery within a periphery needs some explanation. While the Bengal province or India as an overarching category can be interpreted as a periphery in the context of Europe, Jharkhand at the same time was a periphery of the Bengal presidency. Jharkhand did not receive the equal treatment as the Bengal proper, and its experiences of the colonial medical encounters differed than Bengal.

As we will see in the succeeding chapters, the colonial authority had locally modified their interventionist policies according to their convenience. These local necessities that were distinct than Bengal proper, and the native reactions resulted some models of interventions unique to Jharkhand. Thereby, the study of a fringe division like Jharkhand within the traditional framework can be deceitful, and compel any researcher to overlook the large arrays of regional diversities. To overcome this difficulty, this dissertation focusses on the diversification within unity and outline the developments of Jharkhand within the pan-Indian context.

Review of Literature:

The medical history of colonial India evolved two significant trends have become prominent over the years. According to Biswamoy Pati and Mark Harrison, the first trend deals with the colonial legacy in public health, epidemic control programmes and evaluate their progress, while the second trend owes much to Foucault's writings and examines the colonial medical policies through the discourse of power and knowledge. It aims to understand the state's attempt to know its subjects through various medical agencies.² Still, both of these trends only interpret the history of medical interventions in India from a top to down approach and thus limit the opportunities to explore the crucial aspects of native reactions and the encounters of the existing indigenous practices with the newly introduced western practices. These limitations of Pati and Harrison's approach become more acute in an area like Jharkhand, where the larger communities of Adivasis offered resistance to the medical and other related interventions initiated by the colonial government as a part of colonial modernity.

The diffusion, or let's say the interaction between western and Indian medicine, continued for centuries. In an influential essay titled– “The Spread of Western Science” G. Basalla divided the diffusion of western medicine into three stages.³ Durin the first stange, the ‘non-scientific society’ became an inspiration of scientific observations, while the second stage is about the ‘colonial science’ or ‘dependent science’. Basalla did not intend to use this term as a pejorative term or to use it to depict any scientific imperialism and inferiority of the colonial scientists, but only to explain the dependence of the colonial scientists over an external scientific culture

² Biswamoy Pati and Mark Harrison, *The Social History of Health and Medicine in Colonial India*, (Oxon, Routledge, 2009), 1.

³ George Basalla, “The Spread of Western Science”, *Science, New Series*, Vol. 156, No. 3775 (May 5, 1967): 611-622.

that is the West.⁴ The last stage was an age of transition where colonial science struggled to become “an independent scientific tradition.” During the third stage, a group of scientists trained locally and tied within the boundaries of his country replaced the colonial scientists depended on an ‘external scientific culture.’

This periodization, even though being very influential in the context of the medical history, is questionable and highly problematic. According to David Arnold, Basalla, in his second stage, had neglected the particular requirements of the colonial rule that promoted and funded the colonial science. Thus, the absence of the relationship between science and the ‘political and economic imperatives of European states’ describe only a side of the whole process.⁵ Deepak Kumar also has criticized Basalla for his generalization of the “complex phenomenon occurring in different cultural areas at different points of time.” Basalla created a uniformity, but colonies, such as India or Egypt, had a different experience than the white colonies like Australia and New Zealand.⁶ Even with all its difficulties, the model of Basalla offers the first two stages in the context of nineteenth century India. However, as pointed out by Deepak Kumar, the Indian experience was different than other colonies, and therefore it is necessary to search it within the Indian context.

The influential work “Imperialism and Medicine in Bengal: A Socio-historical Perspective,” of Poonam Bala has divided the history of medicine in colonial Bengal into three parts. The first part continued from the early interactions to 1860. During this period, the colonial Government initially attempted to cooperate with Indian medicines. However, being influenced by the utilitarian and evangelical rhetoric, the colonial authority tried to devaluate the native

⁴ Ibid., pp. 613.

⁵ David Arnold, *Colonizing the Body State Medicine and Epidemic Disease in Nineteenth-Century India*, (Berkeley Los Angeles, University of California Press, 1993), 17.

⁶ Deepak Kumar, *Science and the Raj: A study of British India*, (New Delhi: Oxford University Press, 1995), 3.

medical knowledge and practices by assuring the superiority of the western medicine from 1835 onwards. The next significant change in the relations between western and Indian Medicines took place between 1860 and 1920. The two crucial developments- new pharmacopeia with scientific standardization of drugs and the new Regulation Acts of the medical profession created a permanent divergence between the East-Western interaction. As the Germ theory secured its hold among the scientists of Europe, the Miasma theory of diseases that connected East with West, lost its relevance. During this period, western medicine and medical professionals became more confident about their success and marginalized the traditional practices by regarding them as irrational, superstitious, and unscientific. The final period appeared around 1920 with the Indianization of IMS.⁷

Similar to the model of Basalla, this periodization is also highly problematic. After 1835, the first period became very contradicting, and it would be misleading to neglect differences through a generalization. Medicine became larger than a therapeutic and found itself stuck between the ongoing Orientalist-Anglicist debate. D. G. Crawford, a prominent physician in the nineteenth century, mentioned that Lord Bentinck questioned the efficiency of the previously established Native Medical Institution and appointed a committee to enquire regarding “improving the constitution and extending the benefits of Native Medical Institution.” Based on the Committee’s report, Bentinck abolished the institution in 1835.⁸ The abolition of the Native Medical Institution clearly marked a divergence from the age of cooperation, and therefore, should not be generalized through a broad period.

⁷ Poonam Bala, *Imperialism and Medicine in Bengal: A Socio-historical Perspective*, (New Delhi: Sage Publications, 1991).

⁸ D. G. Crawford, *A history of The Indian Medical Service: 1600-1913*, Vol. ii, (London: W. Thacker & co., 1914), 435.

Daniel R. Headrick in his book “The Tools of Empire: Technology and European Imperialism in the Nineteenth Century” contributed remarkably to our conception of the role of technologies and medicines in constructing the European colonialism. According to him, colonialism became possible because of “both appropriate motives and adequate means.” He further stated that colonialism took place in three stages: penetration, conquest, and consolidation. While the use of steamers and quinine were crucial in the first stage, the second stage witnessed the superiority of European firearms. The last stage was the stage of ‘communication revolution.’ Medicine, in the writings of Headrick, emerged as a significant tool of empire as it protected the European bodies against the maladies of the tropical climate in Africa and Asia.⁹

Medicine as a ‘tool of empire’ found a more Indianized version in the writing of Radhika Ramasubban. In her influential article- “Imperial Health in British India, 1857–1900”, Ramasubban argued that the western medical initiatives rarely tried to touch the lives of the natives residing in the interior or remote areas. Their only motive was to secure the important European enclaves and the natives living around them.¹⁰ The elaborate plans, made after the report of the Royal Commission in 1863, also aimed to secure European health against the ‘Tropical hazards.’ Therefore, the western medicine in India remained limited to the ‘state medicine’ during the nineteenth century and even later on. A more or less similar argument can be found in the writings of David Arnold and Mark Harrison.

As one of the most prominent scholars of medical history, David Arnold and his seminal work “Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India” has departed from the mainstream Foucaultian ideas of power and knowledge and acknowledged

⁹ Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (Oxford: Oxford University Press, 1981).

¹⁰ Radhika Ramasubban, “Imperial Health in British India, 1857–1900”, in *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, ed. Roy Macleod and Milton Lewis, (London: Routledge, 1988), pp. 38–60.

the role of resistance in evolving and articulating certain medical action and thought. He also speaks for “corporality of colonialism” rather than colonialism as a “psychological state,” and describes the body as a site of confrontation.¹¹ The native body constructed a site for the colonial legitimacy and control, and to establish its hegemony over these native bodies, the colonial government contested with the pre-existing medical traditions. On the other hand, controlling an infected native body became essential for the British authority to resist the diffusion of an epidemic. As a result, they undertook a series of measures to segregate the possible infected bodies, such as the pilgrims and strictly scrutinize the pilgrimage sites. While Arnold’s work opens up new directions to understand the encounters between western medicine and indigenous medicines, his interpretation of ‘Governmentality’ is more remarkable. One of the major contributions of Arnold is to pointed out the importance of the native reactions in compelling the colonial Government to adopt the policy of expanding hegemony through consent and coercion.

Compare to his previous works, David Arnold discusses the power and knowledge discourse more elaborately in “The Tropics and the Traveling Gaze: India, Landscape, and Science, 1800-1856.” Arnold has brilliantly discussed the importance of the ‘traveling gaze’ as a process beyond a simple observation. Instead, it helped the colonial authority to subjugate the native population by monitoring and creating knowledge about the landscape and the people. Moreover, the projects to redefine or reappropriate a landscape were not merely modification projects, but closely associated with the colonial aspirations of subjugating the natives, especially those living in the hilly jungly areas. Arnold also interprets the tropicalization of India as a cultural act, and stressed the importance of the travelling gaze in constructing the “tropical difference.” The differentiation of India, like many other oriental countries, was a

¹¹ Arnold, op. cit., pp. 7-8.

major phenomenon of colonialism, and it was not limited in the climatic discourses only. Medicine was also a part of the process of differentiation from the 1830s onwards.¹²

The book “Public health in British India: Anglo-Indian preventive medicine 1859-1914” written by Mark Harrison is a breakthrough in the history of medicine in India. In his writings, medicine and the medical officers became a part of the rhetoric of the ‘colonial efficiency.’ Harrison also vividly describes the impacts of metropolitan developments and shows the importance of various trends, like Burkean conservatism, utilitarianism, and Gladstonian liberalism chronologically in determining the course of medical policies in India. While the colonial government initiated much of the medical programmes as a part of its enlightenment project, Harrison questioned the rationality behind this, as the same government and the Indian medical Service (IMS) opposed the germ theories in the late nineteenth century. Similar to Arnold, Harrison too revealed the fear of rebellion as a significant factor in limiting the colonial medical interventions in India. Though there were international pressures to check epidemics, the government could not initiate radical changes because of this fear. Unlike many others, the most interesting part of the Harrison’s work is his refusal to interpret medicine merely as a tool of empire. According to him, medical interventions were minimal and ineffective, and the enclavist mentality of the colonial authority had significantly contributed to it. Even though the racial theory and its importance in public health and sanitary policies are discussed, an absence of social Darwinism along with the lack of elaborate indigenous reaction has been the two major weaknesses of his book.¹³

The idea of medicine in Europe changed over the years, and such changes directly impacted the developments of medical policies in India. The oldest idea of diseases is associated with

¹² David Arnold, *The Tropics and the Traveling Gaze: India, Landscape, and Science 1800-1856*, (Seattle and London: University of Washington Press, 2006).

¹³ Mark Harrison, *Public health in British India: Anglo-Indian preventive medicine 1859-1914*, (New Delhi: Cambridge University Press, 1994).

the supernatural powers and nearly all the societies in their 'primitive' form followed this notion. As described by the famous ethnographers and anthropologists like P.O. Bodding and S.C Roy, the Adivasi communities of Jharkhand largely believed in the supernatural theory of diseases and worshiped the gods and goddesses for the cure.¹⁴ But divine theory was not unique or Jharkhand only. According to Victor C. Vaughan, a famous American physicians and medical researcher, there was hardly any medieval European text that did not describe an epidemic as the wrath of God. Even reformists like Martin Luther explained the epidemics as nothing but the devil's work.¹⁵

The superstitions were not unique to India and the west too had many of its superstitions related to diseases. From the famous article "The 'Cholera Cloud' in the Nineteenth-Century British World" written by Projit Bihari Mukherjee, it become more apparent. In Europe, there was a concept of 'plague clouds,' 'cholera clouds,' and the people in many places perceived these "small black clouds flying low down near the ground" as the primary source of epidemics. While the Europeans in Jharkhand constantly regarded the Adivasi practices of witch-hunting as barbaric, Projit Bihari describes that in one instance, the locals slaughtered a young boy and attached his legs with tall poles to drive away the clouds in England. It is not intended to justify or compare the severity of practices attached with the Adivasi methods of treatments, but to point out that such superstitions were not particular to the Adivasis of Jharkhand or the people of India only. The example of slaughtering the boy also signify that there was no homogenous 'European attitude' regarding the diseases and medicines. Similar to India, Europe too had multiple layers of popular attitude. However, nearly all other researchers more or less failed to

¹⁴ Sarat Chandra Roy, *The Mundas and Their Country*, (Calcutta: Jogendra Nath Sarkar at the City book society, 1912), 332-333; P.O. Bodding, *Studies in Santal Medicine and Connected Folklore*, (Calcutta: The Asiatic Society, 1925); Sarat Chandra Roy, *The Oraons of Chota Nagpur: Their History, Economic Life, and Social Organization*, (Ranchi: The Bar Library, 1915), 477.

¹⁵ Victor C. Vaughan, *Infection and Immunity*, (Chicago: American Medical Association, 1915), 19.

understand it. The problem with the researchers of medical history is that they have specified only a particular perspective in their works, and by doing so, neglected the large spectrum of popular European reactions. In a way, they are trapped by the visions of European attitude and its scientificity and rationality, created by the colonial Government in India and metropolitan authority in Britain. Projit Bihari's work is an essential step in the new direction as he also draws the similarities between the existence of cholera clouds both in Europe and in India. Further, he his criticism of authors like David Arnold and Richard Evans for using an epidemic like cholera only to understand the 'regimes of difference' is significant.¹⁶

Long before Projit Bihari criticized the attempts to understand cholera in terms of the 'regimes of difference,' Charles E. Rosenberg criticized the negligence of individuality in favour of the different social reactions. Rosenberg blamed the humanitarian and environmental approaches that limit the role of individuals during an outbreak in favour of social and communitarian experiences and reactions. Nevertheless, this individuality is essential to understand the widespread popular reactions as Rosenberg has narrated the examples from the eighteenth and nineteenth-century which blamed a sick individual for causing the troubles. In many instances, the ministers and physicians accused a person with cholera for weakening his constitution by committing various sins, such as sexual excess, drinking, etc. Thus, there was an alternative interpretation that narrated an epidemic as a result of the "individual transgression" and "national failing in morality." Resembling Projit Bihari's writing, this article too shatters the ideas of European scientificity and rationality. It exposes an alternative discourse of diseases and epidemics that would later find its full exposé through the medical missions. Even after describing this alternative discourse, Rosenberg pointed out that such religious or supernatural attributions of diseases were not a part of the dominant sphere. Instead, it only an alternative

¹⁶ Projit Bihari Mukharji, "The "Cholera Cloud" in the Nineteenth-Century British World", in *Bulletin of the History of Medicine*, Vol. 86, No. 3 (Fall 2012), pp. 303-332.

and often a supplementary domain that stands apart from science and its empirical knowledge.¹⁷

Deepak Kumar and Raj Sekhar Basu describe the disease as a divergence from the normal state and it can have dual meanings. While the first one includes a value judgment regarding an ideal type of body, the second one refers to a normal state of the body. They further stated that the main task of the physicians was “fixing the ranges of normality” and “reaching a consensus as to the magnitude of departure from these ranges, which could be ultimately labelled as disease.”¹⁸

Previously, the works of Projit Bihari and Rosenberg argued that the significance of individuality and society has its historical roots in the eighteenth century when the physicians, influenced by the enlightenment, started to see an individual body in regards to its surroundings. This strengthened the miasma theory, and the surroundings of a patient received utmost attention to the physicians. Vladimir Jankovic in his famous book “Confronting the Climate: British Airs and the Making of Environmental Medicine” argued that the eighteenth-century physicians regarded the miasma as a “malodorous mists... which tended to occur during sultry weather and in the vicinity of decaying organic matter.” Thus, the air became responsible for most of the diseases, and medicine transformed into an investment to secure the everyday life of the society rather than the treatment of exceptional. However, the topocentricity did not limit itself to medical considerations, and later became an essential part of the eighteenth and nineteenth-century moral theory, enlightened humanitarianism, and political rhetoric. Ultimately, illness moved from an individual body to the surroundings, and

¹⁷ Charles E. Rosenberg, *Cholera in Nineteenth-Century Europe: A Tool for Social and Economic Analysis*, “Comparative Studies in Society and History”, Vol. 8, No. 4 (July, 1966), pp. 452-463; Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866*, (London: The University of Chicago Press, 1962).

¹⁸ Deepak Kumar and Raj Sekhar Basu, “Introduction,” in *Medical Encounters in British India*, eds. Deepak Kumar and Raj Sekhar Basu, (Delhi: Oxford University Press 2013), 2.

resulted in the “medicalization of the living space” and “environmental medicine.” Jankovic also mentioned that the change of space made healthy body exposed to environmental threats, and therefore, it became necessary to train a ‘healthy body’ to sustain the ills surrounding him.¹⁹ The change of space and attempts to familiarize the European body was significant in the context of Jharkhand. It was not the rebels or the local rulers but primarily the climate and landscape that hindered any effective expansion of British rule in Jharkhand. Jankovic further argues that the ideas of a ‘healthy body’ in a ‘challenging surrounding’ promoted the Neo-Hippocratic research on the dimensional distribution and changes in quality of air, water, and other natural elements.

Severine Pilloud and Micheline Lois-Courvoisier, in their book “The Intimate Experience of the Body in the Eighteenth Century: Between Interiority and Exteriority,” have drawn a sharp distinction between the ‘inside’ and ‘outside,’ or ‘interiority’ and ‘exteriority’. Such categories became very significant in medical discourse of India too.²⁰ This dichotomy was extremely influential in the long run, and resulted to a number of debates during the late eighteenth and nineteenth-century Indian context. It crossed the initial limitations of a private space or home as the interior. Further, Jankovic has pointed out that the physicians made a sharp distinction between the people residing in the local, or better to say ‘native’ surroundings against those migrated in an ‘alien’ surrounding.²¹ The survival in an alien surrounding was especially a challenging one like the ‘jungly’ tracts of Jharkhand, became essential to colonial expansion. The succeeding chapters will discuss the immense trouble faced by the early Europeans in dealing with the landscape and forest areas of Jharkhand. Therefore, the government aimed to secure the hostile ‘outdoor’ and undertook numerous projects to enhance the sanitary

¹⁹ Vladimir Jankovic, *Confronting the Climate: British Airs and the Making of Environmental Medicine* (Basingstoke: Palgrave Macmillan, 2010), 3.

²⁰ Severine Pilloud and Micheline Lois-Courvoisier, “The Intimate Experience of the Body in the Eighteenth Century: Between Interiority and Exteriority,” *Medical History*, 47, (2003): 451–72.

²¹ Jankovic, *op. cit.*, pp. 8.

conditions of important places, such as jails, cantonments, leading trading and administration centres, European living spaces, etc. To ensure the European sustainability in a hostile exteriority and create a healthy surrounding, the appropriation of a hostile landscape and sanitary improvements emerged as two essential tools.

As a part of this duality between interiority and exteriority, India became ‘the other one’ of the West in the colonial context. Authors such as J. Fayrer has mentioned the uniqueness of the Indian climate in comparison to the familiar Western climate. The climate in India was strange to the newly arrived Europeans, and “the people and their habits, the animal and vegetable creation, even the diseases differ from those he (Europeans) has hitherto known, and he makes acquaintance... with malarial and liver disease, insolation, dysentery, cholera, and others, that at times sweep over the country as destructive epidemics, while the conditions of life generally under which he exists differ from those of more northern regions.”²²

The implementation of the otherness was an important phenomenon in the Indian history. According to Edward Said, the Orientalists contributed much to this process of creating the otherness. They were generally not interested in anything other than validating their foreknowledge received in Europe, which was indistinguishable with the “exotic, the mysterious, the profound.” Their failure in understanding India and other oriental countries ultimately resulted in the degeneration of the natives.²³ In the debate of interiority and exteriority, Said contributed significantly by explaining the process of familiarization and unfamiliarization. According to him, the distinction between “ours” or familiar with “theirs” or unfamiliar resulted in the creation of an arbitrary “imaginative geography”.²⁴ After the

²² J. Fayrer, *On Preservation of Health in India*, (London: Macmillan and Co., 1894). p. 9.

²³ Edward W. Said, *Orientalism*, (London: Routledge & Kegan Paul, 1878), 52.

²⁴ *Ibid.*, pp. 54.

failure of the Orientalists, the next group of scholars, such as Anglicists or evangelicals had the scope to undermine the civilizational values attached to Orient, including India.

The Anglicist and evangelicals judged the Indian society from multiple perspectives and the science and medicine, even though was an important part of it, received less scholarly attention. However, science and technologies were central to the European understandings, and they judged Indian people based on their scientific knowledge. While the European scientific rationalities became more acute in the nineteenth-century, the Indian knowledge system lacked many scientific standards, such as scientific experiments, documentation, standardization, etc. More importantly, the concept of imaginative geography, as explained by Said, encouraged European physicians to draw random epidemic maps, such as cholera maps, in the nineteenth century. Therefore, it become essential to comprehend the role of a fringe landscape like Jharkhand in constructing the imaginative epidemic maps.

Other than Edward Said, David Hardiman and Projit Bihari Mukharji also have contributed much to our understandings of the clash of civilization. According to them there was a conflict between what Europeans thought to be modern: their own knowledge and society, against traditional, such as Indian knowledge, associated superstitions. In the context of medicine, the Europeans only regarded the western medicine as ‘modern’ by classifying all other forms of treatments as ‘traditional’. Prominent physicians such as Victor Vaughan described western medicine as “the keystone of the triumphal arch of modern civilization and its displacement would precipitate mankind into relative barbarism.”²⁵ The Indian Medical Gazetteer, 1887, too mentioned the Western medical services in India as “the agents of the humanity and charity of the Government.”²⁶ Qualities of scientificity, progressiveness, standardization, and modernity established western medicine or biomedicine as the hegemonic form of cure. According to Guy

²⁵ Vaughan, op. cit., pp. 15.

²⁶ “1886”, in *Indian Medical Gazetteer*, Vol. XXII, eds. K. McLeod, (Calcutta, 1887), 9.

Attewell, David Hardiman, Helen Lambert & Projit Bihari Mukharji, this hegemony became dominant on the expanse of other ‘non-hegemonic’ medical knowledge. The government often utilized its position to diffuse hegemony and criminalized such ‘non-hegemonic’ practices by making them illegal through a series of laws.²⁷ One of the most important contributions of Hardiman and Mukherjee’s work is that they have divided the non-hegemonic medicines into three parts and suggested a new hierarchy of medical knowledge, instead of seeking any uniformity. In the hierarchy, Western biomedicine was at the top, backed by scientificity and textual knowledge, while the indigenous medicines with textual support and theory but no scientific rationality became second. At last, there was an extensive array of folk medicines or subaltern medicines that did not have any scientific rationality or textual support and were largely seen as unscientific, superstitious, and criminal practice.²⁸ In the context of Jharkhand, a large number of Adivasi medical practices, and even the usual method of inoculation came under the third category.

Projit Bihari Mukherjee, in another influential writing- “Pharmacology, indigenous knowledge, nationalism: A few words from the epitaph of subaltern science,” has discussed the alienation and marginalization of subaltern knowledge from the mainstream socio-cultural milieux. Similar to Arnold and Harrison, he has tackled the question of hegemony with a two-edged sword of colonial power and nationalist elite-bourgeoisie classes. Mukherjee explains the process of alienation of the traditional knowledge of Botany from a particular subaltern society by excluding the local intermediates from the process.²⁹ This might be helpful in the context

²⁷ Guy Attewell, David Hardiman, Helen Lambert & Projit Bihari Mukharji, “Agendas”, in *Medical Marginality in South Asia: Situating subaltern therapeutics*, eds. David Hardiman and Projit Bihari Mukharji, (Oxfordshire: Routledge, 2012), 2.

²⁸ David Hardiman and Projit Bihari Mukharji, “Introduction”, in *Medical Marginality in South Asia: Situating subaltern therapeutics*, David Hardiman and Projit Bihari Mukharji, (Oxfordshire: Routledge, 2012), 7.

²⁹ Projit Bihari Mukherjee, “Pharmacology, indigenous knowledge, nationalism: A few words from the epitaph of subaltern science” in *The Social History of Health and Medicine in Colonial India*, Biswamoy Pati and Mark Harrison, (Oxon, Routledge, 2009), 195-213.

of Jharkhand as the Adivasi knowledge of herbs were neglected by both the colonial authority and the upper-class and middle-class Indians. They disregarded the practical values of these herbs and even famous authors like P.O. Boddington described them as “large heap of medicinal ingredients” in his celebrated work “Studies in Santal medicine and connected folklore.”³⁰

“Cholera: The Bibliography,” written by Christopher Hamlin, is a ground-breaking work in the field of medical history. This book stands apart from others through its constant interplay between the European experience and the Asianization of the cholera epidemic in the nineteenth century. Hamlin regarded cholera as the single disease of the nineteenth century and pointed out its emergence alongside the values of Enlightenment liberalism, nationalism, imperialism, and bio-medicine in Europe. Like Jankovic, he also interprets the impact of cholera from a social and communitarian perspective as the communities suffered equally and the epidemic destroyed the “material and communal base of society.” Hamlin has very smartly escaped the risks of studying cholera “through the eyes of European or American officials, historians,” as their portrayal of cholera, associated with the dirt and disgust, turned it into a “representation of horror” rather than the description of a disease. But the most significant contribution of this work is to break down the prevailing stereotypes of origin of cholera in Asia, more specifically in Bengal. Hamlin has gathered several sources that depict cholera or cholera-like diseases in pre-nineteenth century Europe. Hamlin has blamed the post-1857 exoticization of India for such attempts to overlook the cholera like diseases in Europe.³¹

While a few research are available on the medical interventions among the Adivasis of India, “Missionaries and Their Medicines: A Christian Modernity for Tribal India” by David

³⁰ P.O. Boddington, *Studies in Santal medicine and connected folklore*, (Calcutta: The Asiatic Society of Bengal, 1925), 133.

³¹ Christopher Hamlin, *Cholera: The Bibliography*, (Oxford: Oxford University Press, 2009).

Hardiman has opened up a new epoch in the social history of medicine in tribal India. Hardiman has assimilated numerous secondary narratives with the major narratives, and thus his writing crosses the limitations of a stereotype medical history. This book deals with the history of Christian missions among the Bhils in Gujrat, their modernizing efforts, the impact of medical missions on the Bhils, and its limitations. The author has deconstructed western medicine and its relation to missionary medicines. Medical missions were different in terms of their heavy reliance on religion, and to explain this relation, Hardiman describes modernity as a dialectic relation between secular and religious modernity. In the initial chapters, Hardiman has discussed the development of missionary medical activities, their perceptions about Bhil socio-cultural aspects, and healing practices. He then explains the importance of western biomedicine in the 'modernizing' process introduced by the Europeans. Hardiman studied hierarchies functioning within the church, and this study led him to explain the missionary realm as 'mini-empire.' The European missionaries followed the racial theory very rigidly and refused to give a similar status to the educated and converted Bhils.³² He used the narratives of Surmaladas, a Bhil reformer and the records of the famines that played the role of an icebreaker between the missionaries and the Bhils. Such narratives can be found in the context of Jharkhand too. The faith healing that Surmaladas utilized to attract many Adivasis is a method similar to Birsa Munda. The difference lies in their attitudes towards Christianity.

In the context of the Adivasi communities, the edited book of "Narratives from The Margins: Aspects of Adivasi History in India," edited by Sanjukta Dasgupta and Rajsekhar Basu is an important work. In the introduction part of this book, Sanjukta Dasgupta has dealt with a wide range of debates, starting from the very origin of terms like 'Adivasi' and 'tribe' to the

³² David Hardiman, *Missionaries and Their Medicines: A Christian Modernity for Tribal India*, (Manchester: Manchester University Press, 2008).

contemporary subaltern, post subaltern works and provide us a brief description of the scholars and works that have enriched our understandings. She pointed out two decisive factors that helped integrate the Adivasi areas- the paternalistic rule of the district officers and a new legal system. The author has put forward a new set of logic to explain the concept of otherness and the construction of tribe as a Brahmanical creation. British only utilized the existing hierarchy with racial and evolutionary theories to consolidate and justify their rule. However, during the discussions of the debates around assimilation-isolation and the nature of the Adivasi rebellions, the author failed to provide any new direction.³³

Tripti Chaudhuri and her chapter “Evangelical or Imperial? Re-examining the missionary Agenda among the Santhals, 1855-1885,” in the book “Narratives from The Margins: Aspects of Adivasi History in India,” is particularly important for the medical history of Colonial Jharkhand. The author aims to solve the puzzles around the concept of missionaries as a tool of imperialism. She explains that the missionary activities for the most part were independent than the state as their interests was different. Thus, the missionaries often found themselves standing against the colonial interest. Tripti Chaudhuri has mentioned the instances when the state tagged missionaries as the “enemies of empire.” The main significance of Chaudhuri’s work lies in her refusal to project missionary operations as homogenous. There were many internal contradictions regarding education policies and preaching Christianity among the Santals. Methods of preaching also varied from one group to another. Her portrayal of the “Santalization of Christianity” by IHM is a path-breaking work.³⁴

³³ Sanjukta Das Gupta, “Introduction,” in *Narratives from The Margins: Aspects of Adivasi History in India*, Sanjukta Das Gupta & Rajsekhar Basu, (New Delhi: Primus Books, 2012), 1-16.

³⁴ Tripti Chaudhuri, “Evangelical or Imperial? Re-examining the missionary Agenda among the Santhals, 1855-1885,” in *Narratives from The Margins: Aspects of Adivasi History in India*, Sanjukta Das Gupta & Rajsekhar Basu, (New Delhi: Primus Books, 2012), 48-83.

Research questions:

- How far the acquisitions of isolation and ahistoricity of Jharkhand are historically valid, and how did the Europeans experience the climate and various diseases during their early encounters?
- What were the major epidemics in Jharkhand, and what role did it play in constructing the ‘imaginary geography’ of epidemics in the colonial psychic?
- What were the preventive measures initiated by the colonial Government to encounter the growing severity of epidemics in Jharkhand, and how did the people of Jharkhand react to such preventive measures?

Research Objectives

- To find out the historical connections that Jharkhand and the people of Jharkhand had with mainland people and thus to counter the acquisitions of their ahistoricity and isolation. This research also aims to understand the environmental contradictions as well as the topographical and climatic hazards that the early colonizers faced in the hilly and jungly landscape of Jharkhand.
- To write down a comprehensive history of the two major epidemics- Cholera and Small-pox in Jharkhand and to interpret its role as a buffer state between the endemic regions of Bengal and Epidemic regions of North India, along with the importance and significance of introducing medical agencies like Registration agency.
- To track down the process of multiple colonial medical interventions to resist the increasing number of epidemics in Jharkhand and the reactions of the natives, including a large number of Adivasi communities, against the colonial modernity and the alien medical interventions.

Outline of the Dissertation:

This dissertation is divided into five chapters with a prologue and epilogue, and there are sub-sections with the chapters. The first chapter- Introduction, primarily contextualizes this research within the large spectrum of historiographical and research work available on the medical history of colonial India. Further, it includes the conceptual research framework, study objectives, research questions, literature review, sources, and methodology.

The second chapter, entitled- **“Jharkhand: Landscape, Climate and History,”** focuses on Jharkhand as a Geographical space, its climate, and surrounding environment; a short history of Jharkhand to counter the assumptions of ahistoricity and to trace the constant exchanges it had with the neighbouring areas and well as imperial powers; the contradictions of the European mind regarding the healthiness of Jharkhand and how did they suffer from the unfamiliar climate and existing diseases during the expansion of their authority in the region.

The third chapter- **“Epidemic Diseases in a Fringe: Cholera and Smallpox,”** mainly describes the history and gradual development of the two major epidemics- small-pox and cholera in Jharkhand since the 1860s. But this chapter aimed to cross the stereotypes of a formal history of epidemics and tried to contextualize the importance of Jharkhand in the national and international scenario. British created an ‘imaginary geography’ regarding the expansion of cholera from Bengal to Europe, and Jharkhand as the neighbouring state of Bengal was often seen as a buffer state between the endemic areas of Bengal and epidemic areas of northern India. It also traces back the primary reasons behind the growing ratio and frequency of epidemics in Jharkhand in the late nineteenth century. Moreover, it includes a sub-chapter on the Registration Agencies and how the Government tried to diffuse its presence among the far-flanged villages.

Under the title of- **“Preventing the Epidemic: Colonial State Initiatives and the Native Reactions,”** the fourth chapter is centred around two main themes of colonial interventions and native reactions. It includes a small discussion on the importance of epidemic in a particular human society and how it promotes diverse social responses. Rather than interpreting an epidemic in isolation from society, it has attempted to follow the concept of ‘social medicine,’ influenced by Rudolf Virchow and Salomon Neumann that tend to see people’s health as a direct social concern. As for the preventive measures, it interprets the sanitary improvements and vaccination operations of the colonial Government in Jharkhand and describes its limitations in improving the overall living condition of the divisions. Natives, on the other hand, have reacted diversely. A small but influential group of supports promoted various western medical initiatives to encounter the epidemics, but the larger population had resisted the medical interventions. Inoculation became a major field of confrontation, and the Government tried to suppress the native practice of inoculation by criminalizing it. But the local authority soon realised the futility of their suppressive attempts and made vivid plans to reappropriate the existing inoculators as Government and licensed vaccinators for better promotion of the western vaccination. While this duality between oppression and negotiation helped the western vaccination to have a better grip over the natives of Jharkhand, the oppositions continued until the proposed research timeline. The last chapter- **“Conclusion,”** summarize the other chapters.

Sources and Methodology:

This study is a historical work with a strong focus on primary sources. It primarily utilized the colonial archival sources related to general, municipal, agriculture, and judicial files, various printed government reports, published Bengali vernacular novels, books written by the European travellers and officials, and printed Adivasi folklores. An analytical and descriptive method has been used in this work to cross-check the available sources collected from multiple

agencies. The primary sources were consulted the collection of the West Bengal State Archives, Kolkata, Asiatic Society of Bengal, Kolkata, and National Library, Kolkata. The sources are mostly 'Official Papers,' Annual Reports of various subjects i.e., vaccination, Sanitary,' general Administrative Reports, Proceedings of Public Health, Home Departments.

CHAPTER 1

Jharkhand: Landscape, Climate, and History

“It has never become famous or forced itself into history, and, holding out no gaudy advertisement to attract the passer by, it escapes, in the land of great sights and historic memories, the notice that it well deserve.”

-F. B. Bradley-Birt, 1910.

1.1 Landscape of Jharkhand

Bengal, Jharkhand in the colonial writings has been described as a hilly country with mid-range hills, flat tablelands, and the extensive dense forest that hindered the British progress for a long time. The landscape, or the geography in a broader sense, was an essential part of the colonial understanding of India. It was central to constructing the “colonial knowledge”³⁵ and thus helped the colonial authority colonize the natives of a particular geographical space. They also reappropriate the landscape to operate the colonial authority with ease as per their convenience. Various dichotomies worked in this colonial understanding of the Indian landscape. It represented both joy and fear, romanticism and wildness, utility and aesthetics. According to David Arnold, the “traveling gaze” of the colonial officers and travelers ever since the arrival of the Europeans in India had contributed significantly in carving the colonial perceptions of the Indian landscape and produced an extensive amount of knowledge. An “observant officer” in India had “not only an opportunity of investigating the geological formation, natural history, and productions of the country, but also... great facilities for studying the history, religion, and civilization of the people.”³⁶ While this chapter does not primarily focus on the European

³⁵ David Arnold, *The Tropics and the Traveling Gaze: India, Landscape, and Science, 1800-1856*, (Delhi: Permanent Black, 2005), 5.

³⁶ W.W.W. Humbley, *Journal of a Cavalry Officer*. (London: Longman, Brown, Green, and Longman, 1854), 8.

traveling gaze, it attempts to utilize the official and traveler accounts to reproduce the European image of Jharkhand constructed through imagined signs, metaphors and narratives.³⁷ Further, it seeks to reconstruct the dichotomies inherent in the European representation of the landscape of Jharkhand.

Jharkhand during colonial rule was divided into two parts—Chota Nagpur, a division, and Santhal Pargana, a subdivision of the Bhagalpur division. The total area of Chota Nagpur was about 27,679 square miles. Geographically, it had the districts of Rewa, Mirzapur, Shahabad, Gaya, and Monghyr on the north and the districts of Burdwan, Bankura, and Midnapore on the east. Further, the Chota Nagpur division shared its southern border with the tributary states of Orissa and Central Provinces, such as Mayurbhanj, Keonjhar, Bamra, Raigarh, and the British district of Sambalpur; lastly, on the west, it skirted the borders of Bilaspur and Rewa. The other part of colonial Jharkhand— Santhal Pargana covered around 5,469 square miles of area in the east. The river Ganges lay on its east, cutting it through the district of Purnea in the north and Malda in the northeast. While the district of Murshidabad lay on its southeast corner, Birbhum and Burdwan restricted it in the south. Santhal Pargana also shared a border with Manbhum in the south-western corner, separated by the Barakar River. Politically, Jharkhand in the colonial times had six districts of Hazaribagh, Ranchi, Palamau, Singbhum, Manbhum, Santhal Pargana, and two tributary states of Saraikela and Kharsawan. Apart from these, the colonial authority often interchanged some tributary states like Sirguja, Jashpur, Udaipur, Gangpur, Korea, Chang-Bokar, Bonai between the Chota Nagpur division of colonial Jharkhand and the Central Provinces.

³⁷ Nicholas Thomas, *Colonialism's Culture: Anthropology, Travel and Government*. (Cambridge: Polity Press, 1994), 2.

After the British received the authority of Jharkhand in 1765, they considered it as a part of the subah Bihar. J.W Grant, the chief Sheristadar, described Jharkhand as “an elevated region [that] forms part of the Suvah Behar [Bihar], containing nearly 18,000 square miles, though proportionally [to Behar and Trihut] of very inconsiderable value.”³⁸ Major Rennell, one of the most famous British geographers, a historian, and a pioneering figure of oceanography, also made the first map of Jharkhand in 1773 as a part of South-East Bihar on a scale of 5 miles to an inch. He had also prepared the small-scale map of the Jungleterry district in 1779 as the plate II of his Bengal Atlas.³⁹

Geologically, the land in Jharkhand consists mainly of plateaus and hills with few rarely exceeding 3,000 feet in elevation. Even though it is a hill country, there is no well-defined mountain system, and the whole area is a mass of irregular ranges, sometimes opening out to form a wide valley. The diverse small hill range rises from the plains between the Ganges and the Chota Nagpur. The most prominent of them— the Rajmahal Hills in the east, is an extension of the Vindhyan range. It formed an isolated range with volcanic formations. In the eyes of Francis Buchanan, one of the first European to travel and survey certain areas of Jharkhand, Rajmahal was “most beautiful, as the hills of the mountaineers are everywhere in full view to diversify the scene, and the lakes add a beauty, that is uncommon in India.”⁴⁰ The plain area is minimal, with a narrow strip of around 170 miles long in the north and east of Santhal Pargana. This land belongs to the Gangetic plain, both botanically and topographically. Valentine Ball, the famous Irish born geologist, a scholar of ornithology and anthropology, during his survey

³⁸ Sarat Chandra Roy, *The Mundas and Their Country*, (Calcutta: Jogendra Nath Sarkar at the City Book Society, 1912), 105.

³⁹ C. E. A. W. Oldham, *Journal of Francis Buchanan Kept During The Survey of The District of Bhagalpur 1810-1811*, (Patna: Superintendent, Government Printing, Bihar and Orissa, 1930), xi-xii.

⁴⁰ Francis Buchanan, *An Account of the District of Bhagalpur in 1810-1811*, (Patna: Patna Law Press, 1939), 136.

of the region hardly found any flat positions from where hills are not visible.⁴¹ On the other hand, the southern and western part of Jharkhand is more similar to the plateaus of Central provinces and Orissa. However, the conversion from the plains of Bengal in the east is gradual in nature. On the northern side, this transmission is hasty, and several passes launch the lower Hazaribagh plateau to the plains of Bihar.

H.H. Haines, the Deputy Director of Imperial Forest School, Dehradun and one of the most prominent botanists to study the flora of Jharkhand, outlined the major features of the plateau, which includes “isolated rounded or conical bosses of rock rising abruptly from the general level,” broken edges of the higher plateaux, and a great variety of heights.⁴² Mount Parasnath (4,479 feet), the highest mountain in Jharkhand, is situated on the eastern boundary of Hazaribagh.

Ranchi and Hazaribagh form the central plateau with the Damodar valley between them. The central Hazaribagh plateau, with an elevation of 2,000 feet and 600 square miles, is located north of Damodar valley. While the northern part of the Hazaribagh plateau shares its border with the Bihar division, the Ranchi plateau was very flat and open except on the western end. However, the Ranchi plateau developed with extreme abrupt from the Damodar valley. On the other hand, the district of Manbhum in the east is very diverse. It is almost flat like the Bengal Presidency, with a slight undulating plateau in the western portion. In the south and west, there are small isolated conical hills wherein lie the Dalma range (3,000 feet) and Baghmundi plateau (2,220 feet). Singbhum, situated in the south-eastern corner of the Jharkhand, is extended over 3,891 square miles and has steep forest-clad mountains, a small river basin, and hills alternating

⁴¹ V. Ball, *Jungle Life in India or the Journeys and Journals of an Indian Geologist*, (London: Thos. De La Rue & Co., Bunhill Row, 1880), 56.

⁴² H. H. Haines, *A Forest Flora of Chota Nagpur Including Gangpur and The Santal Parganas*, (Calcutta: Superintendent, Government Printing, 1910), 2-3.

with valleys.⁴³ It also had two important tributary states of Kharsawan and Saraikela, and the Kolhan government estate. In north, Palamau, the gateway of Chota Nagpur from the northern side, is about 1,200 feet above sea level. Geologically Palamau is a small tableland along with bewilder, broken by rocks and dense jungles.⁴⁴ W.W. Hunter, a member of the Indian Civil Service, famous historian, and statistician has mentioned Palamau as “a tangled mass of isolated peaks and long, irregular stretches of broken hills.”⁴⁵

Apart from the districts mentioned above, the Santhal Pargana district of the Bhagalpur division (5407 square miles) was an important part of colonial Jharkhand.⁴⁶ This dissertation includes Santhal Pargana because of its geological and topographical features that are similar to the Chota Nagpur plateau. The Rajmahal hills cover its eastern half and occupy nearly two-thirds of the district. These hills are flat-topped, and the highest points are around 1500 feet. Santhal Pargana was a terra ignota or an unknown land to the Europeans as they had very limited knowledge of its landscape, people, flora, and fauna in the eighteenth century.

Francis Hamilton, the famous physician and geographer, was one of the first to survey Santhal Pargana. He divided Rajmahal into two territories of Northern and Southern Mountaineers. Later these territories became Damin-i-Koh in the 1830s. Among the other parts of Santhal Pargana, Godda is situated in the northwest with a strip of alluvial land below the hills. A portion of the Pakur sub-division also lies within the strip. Additionally, the Deoghar sub-division contains a high plateau, and the Jamtara sub-division, during the colonial times, was the seat of an extensive uncleared jungle.⁴⁷

⁴³ L.S.S. O'malley, *Bengal District Gazetteer: Singbhum, Saraikela and Kharsawan*, (Calcutta: The Bengal Secretariat Book Depot, 1901), 2-3.

⁴⁴ D.H.E. Sunder, *Final Report on the Survey and Settlement of the Palamau Government Estate, Palamau District, In Chota Nagpur, Bengal, Seasons 1894-95 to 1896-97*, (Calcutta: Bengal Secretariat Press, 1898), 1.

⁴⁵ W.W. Hunter, *A Statistical Account of Bengal*, vol. XVI, (London: Trubner & Co., 1877), 234.

⁴⁶ H. McPherson, *Final Report on the Survey and Settlement Operation in the District of Sonthal Parganas, 1898-1907*, (Calcutta: The Bengal Secretariat Book Depot, 1909), 2.

⁴⁷ L.S.S. O'Malley, *Census of India, 1911, Volume V, Bengal, Bihar and Orissa and Sikkim, Part I*, Calcutta: Bengal Secretariat Book Depot, 1913, 22.

Before the British came into power, the famous French traveller Tavernier travelled through the jungles of Jharkhand. He crossed the jungles of Ranchi while travelling from Rudas (Rohtasgarh) to Sumelpour (Sambalpur) in 1643. Tavernier mentioned that “all these thirty leagues you travel through woods is a very dangerous passage, as being very much pestered with robbers.”⁴⁸ Around a century after Tavernier’s journey, Jharkhand came under British rule through the grant of Diwani rights in 1765. In the beginning, Jharkhand had little potential for the British as most of its lands were either jungle-covered or barren hills. Therefore, its revenue-generating power was meagre compared to the hazards of ruling it. However, this earlier negligence started to change once the British realised the advantage of its strategic location. Jharkhand lay in between the Maratha empire in the west and the British provinces in the east. Therefore, it emerged as a natural line of defence against the advancing Maratha force, which ravaged Bengal ever since the time of Alivardi Khan in the 1740s. To maintain this natural line of defence, the British aimed to extend their direct sovereignty over Jharkhand and established diplomatic relations with the Rajas of Singbhum, Chota Nagpur, and other big zamindars like the Raja of Ramgarh.

Even though most of the districts in Jharkhand did not have much importance to the British, the district of Rajmahal had a very different experience. Rajmahal was important because it had several hill passages that connected north India to Bengal ever since a very ancient time. In the eighteenth century, the invading Maratha forces utilized these hill passages significantly because of their superiority in mountain warfare. Hence, it became necessary for the British to establish their authority over the mountain ghats to secure their newly established rule in Bengal. But it was not an easy task, and a few major problems obstructed the British authority’s progress in the region. The first was the presence of the autonomous and nonaligned hill tribes

⁴⁸ Roy, op. cit., p. 208.

that controlled the passes. Although the European force penetrated deep inside Rajmahal during their battle against Mir Qasim in 1764, they decisively failed to suppress the Hill tribes, namely *Paharias*, who ravaged the neighbouring countryside through their successive raids. The *Paharias* also destroyed numerous government despatches and frequently killed the carriers. While the colonial authority during its initial years in Rajmahal had significantly less knowledge of the region, the *Paharias*, being the natives of the area, utilized their familiarity of landscape and jungle superiorly. It was the root of a series of straggle that ultimately led the colonial authority and the Europeans pervasively to construct the forest landscape as something avoidable, a “terrains of resistance.”⁴⁹

Consequently, the British authority in 1772 decided to employ a light infantry force at Rajmahal to secure the mountain passes of Rajmahal and suppress the *Paharias*. Captain Brook took command of this infantry force and started his operations by clearing the surrounding jungles. This was one of the earliest examples of the colonial authority reappropriating a jungle landscape as per their convenience. It enabled the light infantry force of Captain Brook to penetrate inside the *Paharia* territories by making the roads for marches.⁵⁰ On the other side of Jharkhand, Captain Morgan shared a similar experience at the jungles of Singbhum. Morgan arrived at Singbhum to suppress the Raja of Dhalbhum in 1768 but found the jungles to be so dense that no one could walk through them. The only paths visible were the village roads.

These struggles of Europeans in the jungles of Jharkhand continued even in the next century. Rev. Reginald Heber, the Bishop of Calcutta, crossed the Rajmahal hills on his way to North India in 1820s. In his travel account, Heber repeatedly described the high density of forest in Jharkhand and said that they were “so thick all-round the edge of the rock that I could only

⁴⁹ Roderick P. Neumann, *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa*, (Berkeley and Los Angeles: University of California Press, 1998)

⁵⁰ F. B. Bradley Biet, *The Story of an Indian Upland*, (London: Smith, Eldee, & Co., 1905), 72-73.

have here and there a view of the blue summits of the hills and nothing of which - I could make a sketch.”⁵¹ Rev. Heber’s disappointment with the jungle landscape of Jharkhand was not an isolated example. Europeans failed miserably to deal with the inaccessibility of Jharkhand throughout the nineteenth century, and it remained an unfavourable, unwelcoming land in their psyche. For example, in 1862-63, Lieutenant Colonel Thomas H. Lewin found it extremely difficult to reach even prominent places like Hazaribagh. There was no effective means of transport available in Jharkhand other than *palki-dak* (*palanquin*) during his days. Lewin travelled all night in a *palki* and had to stop suddenly as the water level of a river increased unpredictably. He recalled his bitter travel experience as “nothing for it but patience, commingled with hunger, for I had eaten nothing for sixteen hours.”⁵² In the next decade, Governor-General Lord Northbrook paid his visit to Hazaribagh. While Northbrook found the climate to be pleasant, he made repeated complaints about the pathetic condition of the roads and the poor means of communication. Northbrook was left with no choice but to travel partly on horseback, *palki* and carriages.⁵³

Apart from the density of jungles and the region's inaccessibility, the nature of the forest also disgusted the Europeans. In the European understanding of a forest landscape, the tropical forest earned a particular appreciation, and everywhere they went, they tried to space out some tropical forest. However, in Jharkhand, that did not happen. Valentine Ball, one of the most famous geologists of his time, became highly discouraged by the nature of the forest during his geological surveys near the Barakar River. According to him, there was a “harshness and dryness about the vegetation of these jungles, together with a want of varied colours, which I did not expect to meet with; while I soon found that the tropical luxuriance and density of

⁵¹ Right Rev. Reginald Heber, *Narrative of a Journey through the Upper Provinces of India; From Calcutta to Bombay, 1824-1825*, (Philadelphia: Carey, Lea & Carey, 1829), 189.

⁵² Lieut.-Col. Thomas H. Lewin, *A Fly on the Wheel or how I Helped to Govern India*, (London: Constable & Company Ltd, 1912), 73.

⁵³ F. B. Bradley-Birt, *Chota Nagpur: A Little-Known Province of the Empire*, (London: Smith, Elder, & Co., 1910), 260.

undergrowth in the forests which I did expect, need not be looked for in these parts of India.”⁵⁴

The ‘dryness of the jungle’ and ‘absent of tropical luxuriance’ in Jharkhand equally astonished Dr. Kurz, a prominent Botanist who accompanied Ball sometime in his journey.

While most of the Europeans expressed their disappointment towards the landscape of Jharkhand, some Europeans, mesmerized by its beauty and healthiness, shared a contradicting view. This alternative trend owed much of its influence to romanticism in Europe in the late eighteenth century. Even though the scholars mostly associate Romanticism with poetry and art, it also influenced the European way of seeing and interpreting a landscape and nature. Sir Richard Campbell, the Lieutenant-Governor of Bengal, was one of the chief proponents of this trend. During his travel to Hazaribagh and other parts of Jharkhand, he enjoyed the jungle landscape here. The forest tracts in his reminiscence appear to be “never gloomy; though umbrageous enough, it is yet cheerful under the Indian sun, and almost invariably gladdens the heart of the beholder. The undergrowth, though sometimes dense, is seldom rank or noxious...”⁵⁵

As mentioned previously, James Rennell was the first European officer to survey certain areas of Jharkhand. He travelled through various parts of Rajmahal hills and described it as a “Romantic” place where the “hills and eminences being always covered with woods,” but lacked the “beautiful swelling of the ground.”⁵⁶ A few decades later, Montgomery Martin, a prominent Civil servant and a founding member of Statistical Society of London, explained the

⁵⁴ Ball, op. cit., p. 23.

⁵⁵ Sir Richard Temple, *A Bird's-Eye View of Picturesque India*, (London: Chatto & Windus, 1898), 54.

⁵⁶ James Rennell, *Memoir of a Map of Hindoostan; Or the Mogul Empire: With an Introduction, illustrative of the Geography and Present Divisions of that Country: And a map of the Countries situated between the Head of the Indus, and the Caspian Sea*, (London: M. Brown, 1788), 60-61.

beauty of Rajmahal more extensively. He represented the district as the most beautiful one with diverse hill ranges, lakes, and jungle— features that were not so typical in India.⁵⁷

Through the examples mentioned earlier, it is pretty clear that there was a very sharp contradiction among the Europeans regarding the landscape of Jharkhand. These contradictions would find a better expression through the debates on the Jharkhand's healthiness in the latter half of the nineteenth century. Apart from the individual accounts, the government reports mainly characterised the jungles as terrain of resistance— a safe haven for those who did not accept the colonial authority and continued their resistance. The colonial government also realised that they could extend their dominance in the far-fetched villages of Jharkhand only through superior accessibility. Therefore, it became necessary to reappropriate the hostile landscape and make it more accessible. It opened the country for further political and economic exploitation and resulted in the rising number of epidemic outbreaks. According to David Arnold, this “ethos of improvement” was integral to how Europeans observed and internalized the jungle landscape.⁵⁸ It provided ideological rationality to the British psyche by impersonating the reappropriation projects like the “white man's burden.”

1.2 Unhealthy Climate and ‘Unhealthy Tract’: Debates on the healthiness of Jharkhand

The climate, along with other factors like landscape and communication, has a profound influence over the health and diseases of a geographical space. In Jharkhand, the climate varies from one place to another due to its extensive geological diversities. Generally, the climate here characterizes a dry and scorching season from the middle of February to June, a hot

⁵⁷ Montgomery Martin, *The History, Antiquities, Topography and Statistics of Eastern India; Comprising The Districts of Behar, Shahabad, Bhagulpoor, Goruckpoor, Dinajepoor, Puraniya, Rungpoor, & Assam*, (London: Wm. H. Allen And Co., 1838), 67.

⁵⁸ David Arnold, *The Tropics and the Traveling Gaze: India, Landscape, and Science, 1800-1856*, (Delhi: Permanent Black, 2005), 85.

weather season from June to September, and a cool season from the middle of October to the middle of February. The high elevated areas have a lower temperature than the adjacent plains during rains and cold weather. Additionally, it has an average rainfall of 50 inches. The temperature ranges very high in the summer, but the dry western wind blows in the spring. Bradley Brit, a famous civil servant and the author of the renowned book “Chota Nagpur: A little known province of the empire,” described the climate of Jharkhand as a transaction between that of central India and West Bengal.⁵⁹

The south and eastern areas of Jharkhand are more humid and have a better rainfall owing to the proximity to the Ganges in the east and the moist winds coming from the south. This moist wind from the Bay of Bengal determines the rainfall up to a considerable level. Palamau is the aridest tract of the Jharkhand because of its far distance from the Bay. It is also open to the dry wind that blows through the Sone valley. In March, this hot wind, locally known as Lahar, comes from the west and often continues from 10 a.m. to 3 p.m. The average mean maximum temperature in the station of Daltonganj, the principal town in Palamau, is about 90.3 degrees Fahrenheit. In May, the temperature of Jharkhand circulates around 106.8 degrees Fahrenheit, which is the highest in the Division and closely followed by Chaibasa (103.2) and Purulia (101.6). In the malarial tracts of Singbhum, the temperature often crosses 112 degrees Fahrenheit. During the famine year of 1897, it touches the highest record of 117 degrees Fahrenheit in June.⁶⁰

The first recorded European encounter in Jharkhand dated back to 1767 when the East India company demoted the Raja of Dhalbhum in favour of Jagannath Dhal. Later the newly appointed Raja Jagannath Dhal refused to obey the British authority, and the Resident of

⁵⁹ Brit, op. cit., p. 168.

⁶⁰ *Final Report on the Settlement of the Kolhan Government Estate in District Singbhum*. (Calcutta: Bengal Secretariat Press, 1898), 2.

Midnapore sent British troops to suppress him. However, it was not an easy task to suppress Jagannath Dhal. Captain Morgan, who led the expedition, became quite depressed and hopeless in the Jungles of Singbhum. He wrote- “I wish to God this business was over, for I am really tired of doing nothing, and my poor sepoy fall sick continually. I have now above sixty men ill of fever. I will lose no time in pursuing Jagannath Dhal.”⁶¹ Later, in the August of 1768, Morgan successfully crossed the Subarnarekha River, but the sickness knocked his troops again and compelled him to encamp in a bog. According to him, it was the “shockingest weather” he had ever seen in his life. So, he requested the Resident to supply Madeira, brandy, and butter to counter the growing sickness.⁶² The areas of Singbhum would continue to confuse the colonial understanding of the disease environment in the later decades. Usually, the British authority appraised the jungle-free tracts of a higher altitude as superior in terms of health and habitability. But the worst kind of malarial fever that broke out in the Bandgaon estate shattered all these long-nourished ideas as this estate was relatively jungle free and situated at an altitude of 2002 feet from sea level.⁶³

The concerns regarding the unhealthiness of Jharkhand became more apparent in the next century. Walter Hamilton, the author of “A Geographical, Statistical, and Historical Description of Hindostan, and the Adjacent Countries” (1820) described Chota Nagpur as “an extensive hilly tract and much covered with wood,” which protected the local Rajas for centuries. Hamilton too echoed the concerns of healthiness, as the forest made it “very difficult and expensive either to penetrate or subdue, on account of the unhealthy jungles, so deleterious to troops not born on the spot.”⁶⁴ In a later instance, the British decided to remove the troops from Jhalda, Manbhum district, owing to this unhealthiness. Valentine Ball too mentioned the

⁶¹ L.S.S. O'malley, *Bengal District Gazetteer: Singbhum, Saraikela and Kharsawan*, (Calcutta: The Bengal Secretariat Book Depot, 1901), 27-28

⁶² *Ibid.*, p. 29.

⁶³ *Ibid.*, p. 96.

⁶⁴ Walter Hamilton, *A Geographical, Statistical, and Historical Description of Hindostan, and the Adjacent Countries*, (London: John Murray, 1820), 288.

death of four people, including a European engineer, during the construction of a bridge over the river Barakar. They fall prey to the prolonged exposure to the sun and the high temperature of Jharkhand.⁶⁵

A reader may get an impression that the Europeans contemplated Jharkhand as an unhealthy tract unanimously. However, the reality was conspicuously more complex, and the colonial writings embodied contradicting views regarding the healthiness of Jharkhand. Although most of the Europeans considered Jharkhand as a healthy and comparatively disease-free tract in the nineteenth century, the Imperial Gazetteer mentioned the forest areas to be “so malarious that they cannot be visited with safety before the month of November.”⁶⁶ Lieutenant Tickell, a famous Army officer and a linguistic, was one of the First Europeans to travel through the deep jungles of Singbhum. While Tickell found Singbhum relatively healthy, he mentioned the unfavourable conditions of the Sadar town of Chaibasa, which the colonial authority selected “without sufficient examination and comparison with surrounding places.”⁶⁷ Nevertheless, these uncertainties was not an integral part of the European discourse only. Indian travellers like Bibhutibhusan Bandyopadhyay, the famous Bengali novelist who had the experience of travelling through the jungles of Singbhum, shared contradicting views too. While the jungles of Singbhum enchanted him, Bibhutibhusan wrote about frequent outbreaks of malarial fever. According to Bibhutibhusan, the fever was so universal that the forest officers had to take daily doses of quinine to continue their job.⁶⁸

In the context of these contradicting healthiness, the Colonial Authority found the rainy season in the plateau areas of Hazaribagh and Ranchi to be favourable and healthy in juxtaposed to

⁶⁵ Ball, op. cit., p. 50.

⁶⁶ Haines, op. cit., p. 15-16.

⁶⁷ Lieut. Tickell, “Memoir on The Hodesum (Improperly Called Kolehan)”, *The Journal of The Asiatic Society of Bengal*, Vol. IX, part II, (July to December 1840): 706.

⁶⁸ Bibhutibhusan Bandyopadhyay, *Diner Pare Din*, (Calcutta: Mitra and Ghosh Publication, 1961), 392.

the Bengal's heavy rain and associated diseases. Additionally, these high plateaus of Jharkhand share a comparatively low temperature and have a better natural drainage system. Therefore, they were hygienically more favourable to the Europeans than Bengal proper.⁶⁹

Jharkhand's advantages became more apparent by introducing a series of medical and natural observations, such as soil quality, altitudes of places, and natural drainage from the 1860s onwards. These observations and the new standards of a healthy environment contributed to a series of debates over the years which reached its apex with the proposed sanitarium at Parasnath hills, Hazaribagh. Parasnath hills consisted of the preferable altitudes, natural drainage, quality of air, and soil— all the standards required for British soldiers to escape the blistering heat of the plain. But the colonial authority failed to reach a uniformity over the proposed sanitarium, and two opposite groups emerged. Ultimately, the contradictions of the European psyche resulted in the cancellation of the sanitarium's plan.

Captain William Maxwell, the Officiating Superintending Engineer of Lower Provinces, was the first to propose a sanitarium in Parasnath hills. In a letter to the Chief Engineer of the Lower Provinces, he expressed his concerns regarding the European soldiers “sinking into their graves from want of change of air and climate.”⁷⁰ To escape this misery, Maxwell picked out the Parasnath hills because it had a favourable altitude of 4483 feet above sea level and cooler temperature compared to the plains (10–12 degree Fahrenheit cooler). Parasnath was also less costly than Darjeeling and easily accessible from Calcutta through Raniganj Railway Terminus.

⁶⁹ Ibid., p. 21.

⁷⁰ *Selections from the Records of the Government of Bengal: Papers Relation to A Sanitarium Upon Mount Parasnath*, (The Bengal Military Orphan Press, 1861), 44.

However, the uncertainty around the healthiness of Jharkhand remained strong. Captain J.P. Beadle, the Superintendent of Embankments, shared his experience of Parasnath in May 1846. While he found the hilltop to be very comfortable, Beadle warned the government not to send the sick soldiers during the rainy season. On the other hand, the letters from C.T. Buckland, the Junior Secretary to the Government of Bengal, dated 4th September 1858, revealed the concerns of the Lieutenant Governor. The Governor doubted the sufficiency of a change of only 10 degrees in recovering health and, therefore, decided not to recommend the project to the superior government.⁷¹

Despite the Lieutenant-Governor of Bengal's refusal, the debates on Parasnath hills continued among the government officials, and Captain C.B. Young, the Officiating Chief Engineer of the Lower provinces, put forward his arguments to depict the pleasant climate in Parasnath. In a letter to the Secretary to the Government of Bengal, he corrected the previously given temperature gap from 10 degrees Fahrenheit to 15 degrees. Young considered this increased temperature gap as an advantage over the experience of the troops in Bengal. It is also important to mention that Sir John Dalton Hooker, one of the most prominent botanists and the director of the Royal Botanical Gardens in Kew, previously estimated the difference of temperature to be 21 degrees Fahrenheit in 1848.

On the other hand, it was not unusual for individual European soldiers to spend their summer days at Parasnath hills. In 1859, Lieutenant Clayton, an officer in the 99th Regiment, spent around two months of summer at Parasnath. In his letter, he wrote about the healthy environment of Parasnath and said- "we found the climate beautifully cool and pleasant. I must not forget to mention though, that during the last few days that we were there, the top of the hill was enveloped both by day and night in a dense mist. My companion and myself enjoyed

⁷¹ Ibid., p. 47-48.

capital health the whole time we were there...”⁷² Other influential officers and prominent personalities like Dr. Thompson and W. Atkinson, Secretary to the Asiatic Society of Bengal, came forward to share their arguments and experiences. They pointed out the scientific advantage of the Parasnath hills due to their high altitude. According to Atkinson, Parasnath was favourable for building enough rooms because of its two miles long ridge and altitude of 4000 feet, safe from the fever heat. However, unlike Major Maxwell of the Bengal Army, who suggested accommodating 300 to 500 soldiers at Parasnath, Thompson and Atkinson limited it to 100 only.

The project of the sanitarium received a great advantage once the government appointed Lieutenant C.B. Young as the Secretary to the Government of Bengal. During his previous job as the Officiating Chief Engineer of the Lower provinces, Young emerged as one of the most vocal advocates of the sanitarium. He also had a personal experience of the climate in Parasnath hills, its advantages and disadvantages. As a result, he proposed the Government of India to build the sanitarium in Parasnath hills. Ultimately, the government abandoned this plan because of the objection of the Jain community, who considered the Parasnath hills the holiest places in their religion. The local zamindars were also extremely reluctant to leave their authority to the Government.

The debates on constructing a sanitarium in Parasnath hills only exemplify one of many such instances. The duality of the British psyche concerning the healthiness of Jharkhand and its jungle tracts would continue in the succeeding decades too. For example, the Government in the 1870s identified the district of Hazaribagh as favourable for a government resort. Sir George Campbell, the Lieutenant-Governor of Bengal, visited Hazaribagh twice in the summer

⁷² Ibid., p. 51-52.

and came up with the idea to construct a government resort here instead of Darjeeling. The government, therefore, established a circuit house near the lake for official use.⁷³

Even in the next century, the contradictions found their place in the Report of the Sanitary Commissioner for Bengal, 1904. While the Sanitary Commissioner examined the upland countries of Jharkhand with a natural drainage system to be less malarious tracts, he referred to the shut-in valleys with rich marshy soil and a slow stream as the “perfect death-traps.” Further, he stated that “malarial infection is so rapid and so deadly that inhabitants of the districts usually avoid these spots choosing the healthier parts for locating their villages.”⁷⁴ Places on the edge and foot of the plateau was most unsuitable to the Europeans and the natives.

1.3. British in Jharkhand: An early history of their conquests and the opening of the region

With the advent of the colonial power in India, Jharkhand underwent radical transformations alongside other parts of the country. These transformations were profoundly different from any preceding changes and radically altered the lives of the native society, including many Adivasi communities. Jharkhand came under British sovereignty with the grant of Diwani rights by the Mughal Emperor Shah Alam in 1765. Initially, the British decided not to penetrate here due to its low revenue-generating power and the unknown landscape with a highly unfavourable climate. However, this standby did not last long as the unruly events of Jharkhand started affecting the British interest in Bengal. Besides the unruly events, Jharkhand also had a considerable political and military importance to the British. After 1765, the Marathas were

⁷³ F. B. Bradley-Birt, *Chota Nagpur: A Little-Known Province of the Empire*, (London: Smith, Elder, & Co., 1910), 259-260.

⁷⁴ O'malley, op. cit., p. 72.

the only power that could have threatened the British authority in Bengal. Strategically, Jharkhand was situated between the British province of Bengal and the Maratha empire of central India, and thereon, the colonial regime aimed to utilize as a buffer state.

Captain Camac was the first British official to arrive in the Chota Nagpur division of Jharkhand in 1772. Raja Dripnath Sahi, the Nagvamsi ruler of Chota Nagpur, proposed to become a British vassal and agreed to pay a tribute of 3000 rupees annually in return for the Britishers' help to reclaim his lost authority over the zamindars. The council at Patna accepted the offer, and the Raja in exchange gave his assistance to the British conquest of Ramgarh. But soon, disagreements arose over the payment of the yearly tribute. Dripnath Sahi was unable to reclaim his influence even with the British assistance, and therefore, was failed to collect revenue from petty Rajas under him. This conflict over the payment would continue in the coming years, and the British often sent troops to extract the revenue from this “constant defaulter.”⁷⁵ In response, the Raja fled to the Maratha territory and left the British no other option but to station a permanent force at Chatra in 1778. Moreover, the British authority turned Chota Nagpur into the military collectorship of Ramgarh district to ensure their authority over the land. Even so, the lack of knowledge and proper administrative hierarchy restricted any direct British interference, and they left the internal administration to the Raja again.

The constant changes in administration and the growing revenue demands of the British soon resulted in the first rebellion in the Tamar district in 1789. This was the starting of a series of revolts that would reach its peak with *Ulgulan* under the leadership of Dharti Aba Birsa Munda. Even though the British put the Tamar rebellion down by a military expedition, the calls for reform soon appeared inside the colonial bureaucracy. The commanding officer of Ramgarh Battalion, Captain Roughsedge, wrote- “I hope I have not unsuccessfully shown the necessity

⁷⁵ T.S. Macpherson & M.G. Hallett, Bihar and Orissa District Gazetteers: Ranchi, (Patna: Superintendent, Government Printing, Bihar and Orissa, 1917), 28.

for reforms, and to these facts and arguments brought forward I will only add that the slightest mark of attachment or loyalty to the Government shown by any individual in Chota Nagpur at the present day is sufficient to bring, down upon him the undisguised and serious displeasure of the Raja and his officers.”⁷⁶

The Raja of Chota Nagpur, on the other hand, continued his strategic resistance. It became apparent in 1803 when he stopped the local zamindars from assisting Colonel Broughton of Ramgarh Battalion during his expedition against Sambalpur. He also provided shelter to many who committed crimes in the British territories. Due to these persistent challenges to the British authority in Chota Nagpur, the British established their first police station in 1809. Yet, it didn't take them long to realize that Raja Govindnath Sahi Deo was doing everything in his power to interrupt the police works. As these systematic resistances continued over the years, it became quite a yearly routine for the British to send a force and obliged the Raja to follow the British orders and regulations. In response, Raja Govindnath frequently retreated to Singbhum.

Being unable to control the Raja and the people of Jharkhand, the British ascribed their failure to the criminal tendency of the People in Jharkhand. In May 1809, Major Roughsedge wrote a letter to C.T. Sealy, the Magistrate of Ramgarh, describing the criminal propensity of the people of Chota Nagpur. Even though Roughsedge asked permission to establish at least eight thanas, the Magistrate rejected his proposal. As the Raja and his subjects continued their resistance, the British decided to take back the Raja's magisterial powers in favour of the Ramgarh's magistrate in 1816. Additionally, they invoked the local customary laws and introduced the ordinary regulations of the Bengal province. As a result, the customary laws collapsed, so did the multiple political, socio-cultural and legal ties of the natives of Jharkhand. Under this context, the Kol rebelled against the British and their associates in 1831. As usual,

⁷⁶Hallett, op. cit., p. 31.

the British used brutal force to subdue the rebellion. Further, the government initiated administrative reform. They abolished the Ramgarh district in 1833, and replaced it with the South-West Frontier Agency which included most of the areas of modern Jharkhand. The colonial authority also exempted the operations of the ordinary regulations here under the Regulation XIII of 1833. Later on, the South-West Frontier agency became a province under regular commissionership through the Act XX of 1854.

On the southern side of Jharkhand, the events developed independently but not in isolation. In 1767, the British led their first expedition against the Raja of Dhalbhum as he created chaos across the Medinipur border. Under the order of the Resident of Medinipur, the British troops, commanded by John Ferguson, an ensign in the British army, reached Ghatsila and captured the Raja in March 1767. The British deported the Raja to Medinipur and installed his nephew Jagannath Dhal as the new Raja of Dhalbhum. However, this did not end the difficulties of the British in Dhalbhum.

While Jagannath Dhal initially agreed to pay a tribute of 5500 rupees yearly, he refused to do so in the succeeding years. Jagannath was a very free-spirited ruler, and by 1768, he established himself as a fully independent ruler. Therefore in 1768, the Resident of Medinipur sent a second expedition under Lieutenant Rooke of Bengal Army. However, the expedition did not go well as the British had to fight a two-way battle against Jagannath Dhal and the unfavourable malarious climate of Dhalbhum. Rooke caught a fever, and Captain Morgan took the command in July 1768. Morgan tried to create an alternative authority by installing Nimu Dhal, brother of Jagannath, in the power of Dhalbhum. He aimed to convince the natives not to join their force with Jagannath. However, Jagannath Dhal continued the resistance, and his force followed the same tactics that the Hos people had previously successfully utilized against the Rajas of Singbhum and Chota Nagpur. They retreated to the jungle at first sight of the British army and attacked only when the British were in an unfavourable landscape. Frustrated by this

Guerilla warfare and the impregnable jungles, Captain Morgan wrote- “It is all a joke to talk of licking these jungle fellows. They have not the least idea of fighting; they are like a parcel of wasps: they endeavour to sting you with their arrows and then fly off. It is impossible almost to kill any of them, as they always keep at a great distance and fling their arrows at you, which, you may suppose, seldom or ever do any execution.”⁷⁷

Being unable to defeat Jagannath Dhal, the infuriate British troops fired some villages and looted their properties. In a letter to George Vansittart, the Resident of Medinipur, Captain Morgan justified such cruelty and said that the people there “deserve a punishment of this sort to prevent their rebellion for the future.”⁷⁸ However, the British failed to capture Jagannath Dhal. While the British were busy due to their affairs with Jagannath Dhal, the Chuars launched yearly raids on the Raja of Dhalbhum in 1769. Raja Nimu Dhal failed to offer any resistance and retreated to the fort of Narsingharh under the protection of the company’s troops. To deteriorate the situation further for the British, Chuars allied with Jagannath Dhal, and together they attacked Nimu Dhal in 1773 and 1774.

Even after their subsequent efforts, the British failed miserably to suppress Jagannath Dhal and his Adivasi associates. As a result, they finally decided to reinstall Jagannath to the throne in 1777 in return for peace and an annual tribute of 2000 rupees for the first year, 3000 for the second, and 4000 from the third year onwards. The colonial authority in 1800 permanently settled the estate in return for an assessment of 4267 rupees.⁷⁹ One of the major factors behind this defeat was the jungle landscape. British fought an ecological as well as a physical war. While the physical wars were easy to win with better tactics and arm power, the European army scrambled against the feverish jungle terries and inaccessible hill tracts. It slowed down the

⁷⁷ Walter K. Firminger, *Bengal District Records: Midnapur, Vol. II, 1768- 1770*, (Calcutta: The Bengal Secretariat Record Room, 1915), 79.

⁷⁸ *Ibid.*, p. 79.

⁷⁹ O'malley, op. cit. P.30.

counter operations and provided the rebels a perfect ground to retreat. In the next century, these humiliating experiences would push the British authority to reappropriate the landscape of Jharkhand. While the expansion of communication opened up the previously unpenetrable jungle tracts for further exploitation, the tactics of cooperation with the local chiefs ensured a better information network and diffusion of many colonial projects.

During their affairs in Dhalbhum, the British came in contact with the Raja of Singbhum 1767. Raja Jagannath Sing of Singbhum raj family asked the British for protection in return of an annual tribute. In response, the Resident of Medinipur sent two sepoys to gather information about the land and the people in January 1768. But Raja Jagannath Singh, being conscious of his sovereignty, did not allow the sepoys to enter his territory.⁸⁰ The next breakthrough came in 1818 when Raja Ghansham Singh Deo faced two significant challenges– independence of his feudal lords in Seraikela-Kharsawan and the increasing independence of Hos. He planned to regain his lost sovereignty by declaring himself a British feudatory and agreed to pay 101 Sikka to the British as an annual tribute. As a part of Raja Ghansham's request, Major Roughsedge, commanding officer of the Ramgarh battalion, entered Singbhum in 1820 to suppress the growing threat of the Hos. The Hos community quite successfully resisted the external invasions for centuries. Their usual tactics were to lure the rival troops to penetrate deep into the jungle and then ravage them through multiple quick attacks. At first, the British too had a hard time, but when they launched a large-scale counter-attack with firearms, Hos suffered a heavy loss. Lieutenant Maitland of Ramgarh battalion defeated the Hos, devastated many of their villages, and thus compelled them to obey the Raja of Porahat, Singbhum.

The Hos lost the battle, but the struggle was far from over. The free-spirited Hos broke out into the first big-scale revolt against the British rule in Jharkhand in 1831. After the British defeated

⁸⁰ James. H. Taylor, *Final Report of the Survey and Settlement Operations in the Porahat Estate, District Singbhum*, 1900-1903, (Calcutta: Bengal Secretariat Press, 1904), 2.

them, the lives of the Hos became miserable under the oppression of the Raja and the alien Zamindars. Their rents increased at an alarming rate of 35 percent. As a result, Hos were unable to pay the increased rent, and they became increasingly dependent on the Mahajans, who often used to take an interest as high as 70 percent.⁸¹ By the end of the 1820s, Hos had no other option but to revolt to escape the exploitations. Their resistance was so fierce that it took the British nearly five years to overcome it. The intensity of the Kol rebellion shocked the British, and therefore, they appointed an investigation committee to understand the roots of the grievances. Thomas Wilkinson, the British agent, proposed to create the government estate of Kolhan with its Sadar in Chaibasa. In 1836, the British authority established the estate by including 620 villages, and the Government undertook multiple measures to conceal the grievances.

The events were comparatively smooth in the North-Western side of Jharkhand. In Palamau, the British utilized the internal feuds of the Chero ruling family to establish their authority. As the Raja of Palamau refused to submit in 1770, the British decided to conquer the district in favoring Gopal Rai, grandson of the previous Raja. Captain Camac from the Patna council conquered the land and installed Gopal Rai under British protection. Soon the first rebellion against the Raja and the British broke out in 1800. While the rebellion's reasons were not different from other rebellions of Jharkhand, the British, as usual, blamed the Raja Churaman Rai for his extravagance. Being unable to control his expenses, Churaman Rai put his estate under a massive debt of 55,189 rupees, and the British Government bought it in 1812.⁸²

Palamau was not profitable in terms of its revenue-generating power and business activities. Most of its lands consisted of Jungles and hills, and the Adivasi communities living here defied

⁸¹ J. Reid, *Final Report on the Survey and Settlement Operations in the District of Ranchi, 1902-1910*, (Calcutta: Bengal Secretariat Book Depot, 1912), 24.

⁸² Sunder, op. cit., p. 58-59.

the British attempts of subjugation constantly. Moreover, the British had very little knowledge of the land and its people. Therefore, they decided not to interfere in the district's affairs directly and passed the estate to Ghanassam Singh, a reputed Zamindar of Gaya district, in 1816. After his appointment, Ghanassam Singh invited the outsiders to the higher posts for better administration and revenue collection. However, these outsiders had no idea of the indigenous socio-economic structures, and therefore, tried to extract revenue with brute force. These forceful extractions reached their boiling point in 1818, and the Chero and other Adivasi communities broke out into an open revolt again. The colonial government soon realized its mistake and undertook the administration in its hand. Since 1818, Palamau became a part of the Ramgarh (Later Lohardaga) district.⁸³

In the east, Rajmahal (later a part of the Santhal Pargana district) was strategically the most crucial part of Jharkhand in the early colonial era. The British needed to establish their authority over the mountainous passes of the district to secure their seat in Bengal. These mountain passes were one of the few ways to travel Bengal from North India. In previous instances, Marathas utilized the tracts during the infamous '*Bargi*' attacks on Bengal to an extent to which the Nawabs of Bengal could never imagine. With the growing hostility between the Marathas and the British, securing the British dominance over Rajmahal became more crucial than ever. But it was not an easy task because the hill people (better known as Paharias), a fiercely brave Adivasi community living in the mountain tracts, challenged the British authority in Rajmahal and surrounding areas. Paharias terrorized the previous rulers of Bengal for centuries, and they continued their yearly raiding operations in the British time too.⁸⁴ During the raiding operations, the Paharias ravaged the neighbouring areas, looted their wealth, and often

⁸³ Ibid., pp. 58.

⁸⁴ Oldham, op. cit., p. x.

destroyed their crops. Thus, their actions directly affected the colonial revenue collection process.

In 1769, the British appointed an English supervisor named William Harwood to deal with the distressing situation. Once Warren Hastings became the Governor-General, he decided to end the chaos in Rajmahal for once and for all. Following the advice of General Barker, the military advisor, Hastings raised a special crop of 800 light infantry and gave the command to Captain Brook. This light infantry had two purposes– to suppress the hill men and bring them to a “regular mode of life.” The military expeditions among the Paharias were not any ordinary military expedition, and it was a part of the larger colonial project to bring the “light of civilization” to the “ignorant savage people of the lowest kind.”⁸⁵ However, the attempts to introduce the so-called “civilization” or what the Europeans thought to be civilization was hardly anything more than an economic strategy to settle down the Adivasi communities in the fertile tracts below the Rajmahal hills. The main aim was to increase the colonial government’s financial profitability. Their intentions would later become more apparent when the British encouraged the Santhals, “more laborious and better cultivators” to occupy the lands of Damin-i-Koh because the Paharia community refused to settle down in the plains for cultivation.

Back to Rajmahal, Captain Brooke did his best to suppress the Paharia raids. Despite his successive attempts, he failed to control them and moved to his second strategy. This second strategy aimed to promote cooperation and relatively non-interference policy among the Paharias under the sovereignty of the Colonial Authority. Brooke succeeded in gaining the trust of a few Paharia chiefs, and in the report of 1774, he claimed to have established 283 villages in between Udwa and Barkop. Even though Brook claimed his success in settling down the Paharias, the disturbances continued for three years. As a result, the Council members– Francis,

⁸⁵ Annals of Rural Bengal, Sir William Wilson Hunter, (London: Smith, Elder, And Co., 1897), 222.

Clavering, and Manson increased their pressure on Governor-General Hastings and criticized him for his incapability to bring peace in Rajmahal tracts. In response, Hastings wrote on 16th January 1775- “By the battalion employed in the Jungleterry, a tract of country which was considered as inaccessible and unknown and only served as a receptacle for robbers has been reduced to government, the inhabitants civilised and not only the reduction of the revenues, which was occasioned by their ravages, prevented, but some revenue yielded from this country itself, which a prosecution of the same measures will improve.”⁸⁶

After Brook failed in settling down the affairs with the Paharias, Hastings appointed Captain Brown as the commander in charge of the light infantry force. At first, Brook closely studied the Paharias, their history, socio-economic and religious perspectives between 1774 and 1777, and later submitted an elaborate plan of administration for the Paharia communities. His plans were independent of the regulations in Bengal and soon received approval from Hastings. But before he could start working on his plan, Augustus Cleveland, the collector of Bhagalpur, replaced him.

During the collectorship of Augustus Cleveland, the cooperative methods of Brook and Brown became more sophisticated. Cleveland was the collector of Bhagalpur for five years, and he was popularly known as ‘Chilimili Saheb.’ In the beginning, Cleveland tried to appease the hill chiefs by winning their trust and confidence. Therefore, he transformed the chiefs into government pensioners in return for peace. Additionally, he organized a magistrate court and asked the chiefs to submit the vital statistics. In the magistrate’s court, the advice of the chiefs received special attention before passing any judgments on the Paharias. As a part of his cooperative methods, Cleveland also raised a light infantry of Paharia people who would be loyal to the British. This force was known as the Bhagalpur hill corps, and it mainly consisted

⁸⁶ McPherson, op. cit., 27.

of the Northern section of Paharias. During their first assessment, the Bhagalpur hill corps successfully fought against their kins of the southern Paharias. Thus, the colonial rule successfully created a new sense of authority among the Paharia community. This weakened their usual social ties, and as a result, it became easy for the British to manipulate them against their own people. Rajmahal might have been the very first place where the colonial authority orchestrated their divide and rule policy.

A paradigm shift took place in the history of Rajmahal with the plans of demarcating the Damin-i-Koh in the 1820s. As mentioned before, the government tried to encourage the Paharias to settle down in the plains and become an agricultural group. But the Paharias were extremely reluctant to leave their usual habitats and, consequently, resisted the government initiatives. After they failed in pursuing the Paharias, the local officers decided to encourage the laborious Adivasi community of Santals to settle down in Rajmahal. Santals used to live in Birbhum for centuries. But their lives became miserable due to the oppression of Hindu and Muslim Zamindars, and therefore, they migrated to Rajmahal. In Damin, the Santhals quickly cleared the jungles and expanded agriculture to the extent that the revenue of Santhal Pargana multiplied within a few years.

But this prosperity soon attracted numerous alien zamindars and money-lenders, and they trapped the Santals in the same situations they sought to escape. While the Santhals tried to take their issues to the government, the government paid no attention and showed reluctance to take action against their associates in Damin. At last, the Santals broke out in a great rebellion in 1855. This revolt was so intensive that it nearly overthrew the colonial rule from Santhal Pargana and compelled the government to use a force greater than any of the uprisings before. After suppressing the revolt, the Government introduced some significant reforms and established Santal Pargana as a separate non-regulation district under Act XXXVII of 1855. The intermediaries like money-lenders and Zamindars became minimal, and the government

established direct contact with the people. Police stopped its regular operations in Adivasi areas, and the government recognized many of the customary Adivasi laws.

Colonialism as a phenomenon did not limit itself to the political changes and hegemony only. Instead, it challenged the existing socio-cultural and economic norms and altered them, often by force and often by negotiation. Therefore, in the context of medical history, it is necessary to recognize and describe the changes that influenced the disease-related discourses and made the relatively isolated region of Jharkhand more disease prone.

One of the most significant effects of colonialism in Jharkhand was the opening up of the region through the expansion of communication networks. Historically, Jharkhand was very inaccessible to outsiders. Jain literature, such as *Ayaranga-sutta*, named Jharkhand as '*Vajra-bhumi*,' an extremely inaccessible land where the local people mistreated the twenty-fourth Tirthankara Mahavira during his journey.⁸⁷ Many centuries later, Huen Tsang, the famous Chinese traveller and Buddhist scholar travelled through the alluvial tracts of Rajmahal in his attempt to bypass the forest and hill tracts and the herds of Elephants of Jharkhand. However, Huen Tsang was not the only traveller to bypass the jungle tracts of Jharkhand. Even though the Buddhist and Jain monks extended their work throughout eastern India, they usually avoided Jharkhand because of its inaccessibility. They also needed "well-populated prosperous agricultural villages with a sufficient surplus" for their missionary works. But Jharkhand, despite being very close to Bodhgaya, offered them none.⁸⁸ Other than these records, the Allahabad inscription of Samudragupta mentioned an area named '*Murunda*' where the people were mainly forest dwellers. Considering the fact that Samudragupta crossed the forest tracts

⁸⁷ Hari Shankar Pandey, "Early Political History of Chotanagpur in Historical Perspective", *Proceedings of the Indian History Congress*, Vol. 61, 2000-2001: 169-70.

⁸⁸ Romila Thapar and H.M. Siddiqi, "Chota Nagpur: The Pre-Colonial and Colonial Situation", In *The Jharkhand Movement: Indigenous Peoples' Struggle for Autonomy in India*, Ram Dayal Munda & S. Basu Mullick, (Copenhagen: International Work Group for Indigenous Affairs, 2003), 33.

of Jharkhand during his conquest of South Kosala, this *Murunda* was most probably the Mundas of Jharkhand.⁸⁹

Even though Jharkhand was not an isolated area or a land without history,⁹⁰ it was not a very favourable tract to penetrate as well. During the medieval period, the inaccessibility of the hilly-jungle tracts became the major obstacle of the Delhi empires in their conquest of Jharkhand. Whether it was the expedition of general Khawas Khan under the order of Sher Shah or the conquest of Palamau by Daud Khan, the Governor of Bihar during Shahjahan, the lack of communication troubled them all equally. Daud Khand even had to spend more than a month only in clearing the jungles to make a road that would allow his troops to penetrate in Jharkhand.⁹¹ Centuries later; the British too experienced the same challenges during their early expeditions.

Back in the colonial period, Daniel R. Headrick mentioned communication as a crucial tool of the empire along with medicine. He explained that the “communication revolution” enabled the European authorities to exploit the colonies with further ease.⁹² In the nineteenth century, especially in the last three decades, Jharkhand went through a similar communication development process. Initially, Jharkhand had only one crucial road– the Grand Trunk Road, a major line of communication between Calcutta and the north-western part of the continent. It entered at Manbhum, near the northern area of Damodar, and passed through Hazaribagh plateau and Dhanwa pass.⁹³

⁸⁹ Vincent A. Smith, *The Early History of India: From 600 B.C to the Muhammadan Conquest*, (Oxford: Clarendon Press, 1914), 283.

⁹⁰ F. B. Bradley-Birt, *Chota Nagpur: A Little-Known Province of the Empire*, (London: Smith, Elder, & Co: 1910)

⁹¹ L.S.S. O'Malley, *Bengal District Gazetteer: Palamau*, (Calcutta: The Bengal Secretariat Book Depot: 1907), p. 24-26, 17.

⁹² Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*, (New York and Oxford: Oxford University Press, 1981)

⁹³ H. Arden Wood, *A Short Geography of Bengal*, (London: George Bell & Sons, 1895), 167.

However, with the growing potentiality of Jharkhand, the government introduced both railways and extensive roadways throughout the region. Other than Grand Trunk Road, the British also constructed the military road between Calcutta and Banaras in 1782, near the Ramgarh battalions headquarter. Later it coincided with an earlier route between Kendi and Makundganj.⁹⁴ The district of Hazaribagh consisted of some other vital roads between Patna and Doisanagar, passing through Gaya and Sherghati; a road from Nawada that went through Jharkhand and ultimately led to Bishnupur and Calcutta, etc.⁹⁵

In the southern district of Singbhum, the most important road was the Ranchi-Chaibasa Road. This road was 881/4 miles long (24 miles metalled road), and it connected the sadar town of Chaibasa with the divisional capital of Ranchi. Apart from this main road, the British constructed numerous roads, such as– the Mayurbhanj road, from south of Chaibasa to Jaintgarh on the boundary of the Keonjhar State (36 miles long), the Midnapore road, connecting Chaibasa to Bend (73 miles long), the Purulia road between Chaibasa and Purulia, which crossed through the Subarnarekha River (31 miles long), etc.

On the other side of Jharkhand, the district of Palamau had one of the most primitive communication systems in the division. Writing in 1878, the famous Geologist V. Ball, in one of his accounts, remarked that– “Of pukka-bridged roads, there is not a single example in the whole area. The few roads that do exist are little better than mere fair-weather tracks. Of these the principal are from Daltonganj to Ranchi, and from the same place to Dehree on the Sone. But few of the others are practicable for carts, and the remainder can only be used by pack cattle and elephants.”⁹⁶ Even in 1897, the Deputy Commissioner of Palamau said– “Palamau

⁹⁴ E. Lister, Bihar and Orissa District Gazetteers: Hazaribagh, (Patna: Superintendent, Government Printing, Bihar and Orissa: 1917), 1-2.

⁹⁵ Ibid., pp. 153-154.

⁹⁶ Memoirs of the Geological Survey of India, Vol. XV (Calcutta: Office of Superintendent of Government Printing, 1878), 25-26.

has neither railway nor reliable water communications, and all her roads are third class ones, Kachha and unbridged ones. Her mode of transport of goods is by cart and by pack-bullocks.” He further stated that— “Palamau is probably the most isolated district in the whole province of Bengal, a district which in a time of scarcity may not inaptly be compared, in the words of the late Sir George Campbell, to a ship at sea running short of provisions.”⁹⁷

To overcome this inaccessibility of Palamau, the British introduced an extensive network-building process in the last four decades of the nineteenth century. They constructed the first road at Palamau in 1863 out of its commercial necessities. Once the American Civil War significantly reduced cotton supply from America, the British increasingly became dependent on India to fulfil their demand. As a result, they constructed this road in 1863 to provide an easy passage to the cotton-producing areas of Palamau and Sirguja by connecting it with the Grand Trunk Road. British named this 70-mile-long road the Bihar Cotton Road, and it connected Daltonganj, the Sadar town of Palamau, with Sherghati in the Gaya district. However, the colonial authority left the road incomplete due to the dense jungle passes. Other than the Bihar Cotton Road, there were 350 miles of road in Palamau by the end of the nineteenth century. However, most of them (302 miles) remained unmetalled.⁹⁸ Out of these growing roads, three were very important. The first two connected Daltonganj with Gaya in the north, and the third one connected Daltonganj with Ranchi in the south.

Apart from the roadways, the railways too played a crucial role in Jharkhand’s opening up. While the roads in Jharkhand were not in a very suitable condition and had a lower communicative efficiency, the railways revolutionized communication, both in terms of number and capacity. It became a prominent tool of the colonial authority and favoured its

⁹⁷ L. S. S. O’malley, *Bengal District Gazetteer: Palamau*, (Calcutta: The Bengal Secretariat Book Depot, 1907), 119.

⁹⁸ *Ibid.*, pp. 130.

expansion and exploitation, even in many of the previously impenetrable areas. On the other hand, railways also made the diffusions of epidemic diseases much easier through their capacity of carrying a great number of populations throughout Jharkhand without the hassles of the roadways. Additionally, it created numerous embankments that obstructed many natural water flows and produced an increased number of epidemics due to the ecological changes. The succeeding chapter will discuss such instances of railways causing degradation of the local health in some regions of Jharkhand.

There were two major railways in Jharkhand– the East India Railway, built up in the 1850s to connect Calcutta with Delhi, and the Bengal Nagpur Railway connected the Bengal province with the Central Province. Initially, the East India Railway ran through the north-eastern border of Jharkhand, in the Santhal Pargana district. However, after discovering coal in Giridih, the railway company established a branch in the west up to Giridih. The people of Hazaribagh generally had to travel to Giridih by Tonga carts to access the railways.⁹⁹ The East India Railway in Jharkhand started its operations first on 4th July 1860. It was such a memorable occasion to the colonial authority that the Secretary to Government of India struck a large silver medal to commemorate the opening of the railway up to Rajmahal and distributed it to the principal officers involved in the project, such as George Turnbull, the Chief Engineer.¹⁰⁰ However, the construction work did not run smoothly as the East India Railway company went through a series of problems, starting from the Santhal rebellion to the necessities of importation of labours from Nagpur. The unhealthiness of the Jharkhand, especially the base of the Rajmahal hills, created some significant obstacles in the expansion of the tracts and delayed the project for a considerable time.

⁹⁹ Wood, *op. cit.*, p. 167-168.

¹⁰⁰ G. Huddleston, *History of The East Indian Railway*, (Calcutta: Thacker, Spink and Co., 1906), 29.

While the East India Railway opened up only a tiny portion of Jharkhand, the Bengal-Nagpur railway, established in 1887, had a more significant influence in opening up the country. The colonial authority's main motives were to upgrade the existing Nagpur-Chhattisgarh line and shorten the journey between Howrah and Bombay. Apart from these, the colonial administration by the 1880s became conscious of the great potentiality of Jharkhand due to its large stocks of minerals, especially coals, and natural resources like timber. The Administrative Report of 1882-83 narrated the importance of this railway and its route, as it said– “The country is very undulating throughout. The greater portion of the located line is through forest and from the 135th to 165th mile the location work was very difficult through the hills and spurs of the Saranda ridge, south of Koel branch of Brahmin river. It was contemplated that this line will shorten the through route from Bombay to Calcutta by about 123 miles and will open up the northern parts of Raipur, Bilaspur, Sambalpur and Singhbhoom districts and the district of Manbhoom. For the construction, cheap labour and abundant timber was available. The alignment also possessed the incalculable advantage of having coal procurable from its terminus near Sitarampur.”¹⁰¹

Thus, by the end of the nineteenth century, Jharkhand was open to a more efficient colonial rule and exploitation, followed by an immense demographical change and an increasing number of epidemic diseases. While the impact of the communication in escalating the number of epidemic outbreaks is not one of the major concerns of this dissertation, it also cannot be neglected as the succeeding chapter will discuss the expansion of cholera through pilgrimages and movement of army regiments. These extensive movements became possible only after the colonial authority opened up the country through a series of communication networks.

¹⁰¹ R. R. Bhandari, “Bengal Nagpur Railway” in *South Eastern Railway: March to New Millennium 1878-2001*, 2001, http://www.serailway.gov.in/General/Book_RRB/index.htm.

On the other hand, the government also became increasingly conscious of the epidemic diffusions through the communication networks. Therefore, they constantly conducted surveillance of the roads, especially the Grand Trunk Road, and considered appointing good native doctors and police constables during the high pilgrim seasons. J.W. Dalrymple, the Commissioner of Bhagalpur, even asked the Secretary to the Government of Bengal, Judicial Department, to increase the number of police patrol and native doctors in pilgrim routes during the major festivals at Deoghar. Additionally, he proposed to use the police force to take the sick to the nearest hospital.¹⁰² In the succeeding decades, such attempts, along with many other restrictions, became an integral part of the government's epidemic control programmes.

¹⁰² Proceedings, Government of Bengal, Sanitation Department, Judicial Branch, October 1869, Nos. 13-30.

Chapter 3

Epidemic Diseases in a Fringe: Cholera and Smallpox

“Khekhelnu nad nindkiri mann-nu atkha nindkiri.” [The earth is full of Spirits (as) the tree is full of leaves]

- An ancient Oraon tale

From the very beginning the British were anxious about the recurrent attacks of diseases in Jharkhand. These attacks instigated the colonial officials to investigate the climate, diseases, and the landscape of Jharkhand and the way they imagined Jharkhand on the basis of their conclusions were filled with contradictions among themselves. While there were a significant number of colonial officials who argued for the healthiness of Jharkhand against the neighbouring areas of the Bengal presidency, another group of officials emphasised the example of the British soldiers and administrators falling prey to the diseases. But this chapter does not intend to explain this dichotomy further in detail. Instead, it tries to understand the contextualization of Jharkhand in the disease geography of India.

By using the term disease geography, I intend to interpret a disease not only as an ecological or a health-related discourse but also as a part of the human imagination. As we will see in the succeeding sub-sections, the diseases crossed the limitations of an individual concern by appearing as a social problem in the nineteenth century. Once a disease became a social concern and threatened the prosperity of a state and society the state became anxious to control its diffusions. This desire of the nineteenth-century state to restrain the diffusion of the diseases was followed by the institution of several investigation commissions and registering agencies. While these registering agencies and investigation committees helped the government understand the origin of the diseases, their attempts to understand the routes of diffusion

resulted in some imaginary geographies. The physicians, officials, and the state assumed that a disease emerged from a particular area, and thereon, it travelled through numerous movements all around the country. The results of such theorization of imaginary geographies are immense as they localize the diseases to certain areas, and hence, divide a geography into definite disease areas depending upon its proximity to the origin areas. Under this context, this chapter aims to study the epidemic diseases of Jharkhand not in isolation but concerning regional and national affairs. It will ultimately argue that even “a little-known province of the empire” like Jharkhand can play a significant role in the European understanding of disease geography. Disease geography will find further explanation in the succeeding sub-sections of this chapter.

While explaining the emergence of registration agencies and the history of epidemic diseases in Jharkhand, this chapter has utilized the Adivasi folklores and oral sources along with archival and published government records. The purpose of utilizing the Adivasi folklores is to provide alternative or subsidiary sources other than those written from the perspectives of the state and authority. These folklores embodied the diverse perceptions of health and diseases among the Adivasi communities and their experience of the epidemics in a fringe landscape. At its core, this chapter mainly focusses on the two widespread epidemics—cholera and smallpox, in relation to the colonial perceptions of epidemics. This helps us understand the factors behind the diffusion of the epidemic, their evolution, and growing severity in the nineteenth century Jharkhand.

2.1. Registration agencies in Jharkhand: A premise for colonial intervention

In the late eighteenth and the early nineteenth century, Europe went through a significant change that altered the nature of a disease and epidemic in the popular medical imagination.

The disease that had always been an individual concern for the physicians gradually became a social affair. The physicians started to interpret a disease in terms of its diffusing capabilities, and therefore, it moved out from an individual space to the social space around him. Moreover, the emerging nation-states, being conscious of their economic utility and the newly emerging state duties such as protecting the people, their health, and prosperity, realized the disruptiveness that a disease or an epidemic possessed.¹⁰³ Therefore, they tended to control the epidemic outbreaks through several means, such as making quarantine centres, restricting free movements around the country, often making medical programmes, such as vaccination, compulsory, etc.

While the states intended to control the diseases and epidemics, they had certain acute limitations during the eighteenth and nineteenth centuries. The most important limitation was that the state had minimal knowledge of the epidemic disease outbreaks. In general, many Europeans interpreted the epidemics in terms of their “special, accidental, unexpected qualities.” The state and even the physicians neither knew its origin nor its diffusion and carriers. Therefore, their first attempt was to collect a set of knowledge regarding the particular epidemics. The state employed numerous commissions, special agencies, and registered deaths to gather information regarding an epidemic’s origin, route of diffusion, mortality ratio, the possible medium of diffusion, and the environmental factors behind an outbreak. The chief purposes of these investigation agencies was to note down the epidemic related events in elaboration and cross-check the viewpoints through multiple channels to deal with the unpredictability of an epidemic.¹⁰⁴ They produced a substantial number of reports and data as

¹⁰³ Vladimir Jankovic, *Confronting the Climate: British Airs and the Making of Environmental Medicine* (Basingstoke: Palgrave Macmillan, 2010); Charles E. Rosenberg, *Cholera in Nineteenth-Century Europe: A Tool for Social and Economic Analysis*, “Comparative Studies in Society and History”, Vol. 8, No. 4 (July, 1966), pp. 452-463; Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866*, (London: The University of Chicago Press, 1962).

¹⁰⁴ Michel Foucault, *The Birth of The Clinic: An Archaeology of Medical Perception*, (London: Routledge, 2003), 25.

a part of the enumerative modality,¹⁰⁵ and thus, helped the physicians and the states to create a centralized empirical knowledge base on epidemics.

The intentions of the government were clear. They desired to utilize the knowledge produced through investigation, elaboration, and supervision, to counter any future possibility of an outbreak. Further, in the context of colonial countries like India, the authority aimed to exploit their knowledge of the epidemic disease to impress the natives “with the importance of bestirring themselves in sanitary return,” as John Martin Coates, the Sanitary Commissioner for Bengal, said in 1877.¹⁰⁶ Therefore, the investigation committees and the registration agencies became an additional tool of empire to assert European superiority and induce the natives to the western medical programmes.

In Jharkhand, the government introduced the registration operations in 1868. The local Sanitary Commissioner, who was primarily in charge of looking after the basic sanitary needs, received the duty of collecting accurate fatality statistics too. Further, the government entrusted him with the arduous task of interpreting the collected data and taking actions as per the necessities. But unfortunately, registration did not make any real progress until 1869.¹⁰⁷

Even after the introduction of proper registration in 1869, the operations faced numerous complications in the rural areas of Jharkhand, and therefore, remained limited to the major towns only. The major problem in operating registration in the rural areas was the inaccessibility of Jharkhand. By the end of the nineteenth century, it had few roads connecting the major urban centers. The only notable road was the Grant Trunk Road that passed through

¹⁰⁵ Foucault, op. cit., pp. 27-28; Bernard S. Cohn, *Colonialism and its Form of Knowledge: The British in India*, (Princeton: Princeton University Press, 1996), 8.

¹⁰⁶ John Martin Coates, *Eleventh Annual Report of the Sanitary Commissioner for Bengal, Year 1878*, (Calcutta: The Bengal Secretariat Press, 1879), 3.

¹⁰⁷ Sixth Annual Report of the Sanitary Commissioner with the Government of India, 1869, (Calcutta: Office of the Superintendent of Government Printing, 1870), 122.

the Hazaribagh district. Other than these few connecting roads, the registering agencies needed to travel through the *kaccha*, jungly streets, making their job painful. The abundant hills and jungles in every corner of Jharkhand, and the location of the villages far away from each other, added extra challenges to the registration operations. Escalating the challenges further, the sanitary department did not have the financial strength to appoint specialized staff for the registration operations. So, they had to work with the pre-existing government village agents, like the Chaukidars, to report the registrations of the births and the deaths.

The Chaukidars were usually low caste Hindus, and they received a certain amount of revenue-free land as a payment for their service. They often used to collect a house tax for their service in a few places and occasionally received a monthly salary from the Zamindars. But all over, the Chaukidars were underpaid and lived in the outskirts of the villages.¹⁰⁸ After being employed by the sanitary department, this underpaid agency needed to keep records of the deaths and births in their respective areas. Later on, it had to inform the numbers to the local police station or outposts. These local police stations acted as the local registration center, and they used to submit the information to the Civil surgeons of the districts once a month. Eventually, it was the task of the Civil Surgeons to make the final statistics and pass them to the Sanitary Commissioner.¹⁰⁹

Cursorily, this structure of the registration agency and its function may look like a flawless colonial mechanism but it faced multiple complications at the grassroots level. The medical men, mainly the civil surgeons and the physicians, were doubtful about its usefulness and constantly questioned the accuracy of the knowledge, both the mortality data and the reasons for the mortalities. According to them, the Chaukidars were not medical men, and their little

¹⁰⁸ Valentine Ball, *Jungle Life in India or the Journeys and Journals of an Indian Geologist*, (London: Thos. De La Rue & Co., 1880), 20.

¹⁰⁹ L. S. S. O'Malley, *Bengal District Gazetteer: Palamau*, (Calcutta: The Bengal Secretariat Book Depot, 1907), 60.

knowledge of the diseases was principally based on observations rather than scientific medical training. This concern came to reality as the civil surgeon of Palamau reported the chaukidar's inclination towards registering a large number of deaths under the head of fever without any proper examination. On another occasion, Charles Jackson, the Sanitary Commissioner for Bengal, found a significant flaw in the Chaukidari reports of Jharkhand. During his visit to Jharkhand, Jackson came to a village where the villagers reported around a hundred deaths against the fifteen reported by the local Chaukidar. Even in the town areas like Deoghar, the government found the registration reports awfully inaccurate. While the Civil Surgeon of Deoghar saw deaths among the villagers residing in the neighbouring regions of Deoghar in 1870, the chaukidars did not report any death at all.¹¹⁰ These inaccuracies continued to be a major drawback of the registration operations in Jharkhand even several years after its introduction. For example, in 1877, the chaukidars in Jharkhand reported the deaths from the fever to be 9.26 per 1000. But once the Sanitary Commissioner revised statistics, it turned out to be 15.21.¹¹¹

The errors in the vital statistics report had two main reasons—lack of basic medical knowledge of the Chaukidars and the ill-payments. The Chaukidars were primarily involved in farming, and hence, it was unlikely for them to travel through the outlying areas during the farming seasons. The sparseness of the villages in Jharkhand over a vast and complex geography made the Chaukidar's job more strenuous than expected. This sparseness, coupled with the large floating population of Jharkhand, made it nearly impossible to register the deaths accurately. Furthermore, the Adivasi communities resisted any Government interference into their daily life and did not disclose the deaths of their family members. To escape the enumerations, they

¹¹⁰ Charles J. Jackson, Report of the Sanitary Commissioner for Bengal, For the Year 1871, (Calcutta: Calcutta Central Press Company, 1873), 7-8.

¹¹¹ John Martin Coates, Tenth Annual Report of the Sanitary Commissioner for Bengal, for the year 1877, (Calcutta: The Bengal Secretariat Press, 1878), 4.

used to bury the dead bodies in the night.¹¹² Also, the tense relationship between the chaukidars and the villagers emerged as a crucial factor behind the Adivasi community's disapproval of registration.

Soon, the calls to take action against the errors in registering data became prominent among the colonial officials, especially among the physicians. But these calls were unfruitful as the registration works were voluntary, and thereby, it was not possible to take legal actions against the errors of the chaukidars.¹¹³ This helplessness reflected perfectly in the account of the Deputy Commissioner of Santhal Parganas, as he observed, "We have no means of checking death registration, and, until some simple but effectual means are devised, we cannot expect much better results than what we now get." Instead, he blamed the police officers for not taking "the trouble to check chaukidar's reports, unless for special reasons in special cases."¹¹⁴

One of the most important suggestions of the Deputy Commissioner of Santhal Pargana in 1883 was to create interest among the registering agencies. According to him, "the real fact is the police have no heart in it [registration], and the chaukidars have no incentive,"¹¹⁵ and therefore, it was necessary to improve their working condition and interest to have better registration returns. But the colonial government, having limited financial support and authority over the rural areas of Jharkhand, overlooked his suggestions. Rather, they opted to follow a path of active collaboration with the native ruling classes.

In the Hindu majority areas, the Zamindars received the order to appoint the Chaukidars to carry on the registration duties. But in the Adivasi areas, the responsibilities fell on village

¹¹² John M. Martin, Report of the Sanitary Commissioner for Bengal, for the year 1874, (Calcutta: The Bengal Secretariat Press, 1875), 5.

¹¹³ Jackson, *op. cit.*, pp. 7.

¹¹⁴ R. Lidderdale, Seventeenth Annual Report of the Sanitary Commissioner for Bengal, year 1884, (Calcutta: The Bengal Secretariat Press, 1885), 7.

¹¹⁵ R. Lidderdale, Seventeenth Annual Report of the Sanitary Commissioner for Bengal, year 1884, (Calcutta: The Bengal Secretariat Press, 1885), 7.

chieftains, such as the Munda or Manjhi. They were in charge of collecting the data from their respective villages and submitting them to the local police stations. The government also initiated diverse local adjustments for the facileness of registration. In parts of Singbhum, the chaukidars had to work under a complex registration process. They reported the deaths to the village Munda or headman, who subsequently passed the data to the Manki. It was the duty of the Tehsildar, associate of the Manki, to forward the details to the Civil Surgeon. Tehsildars, the land revenue collectors, received orders to rectify the reports made by the chaukidars and Mundas during their visits to the villages.¹¹⁶ With few other local adjustments, the government ceased the Chaukidari operation in Kolhan Government Estate. Here, the Mundals or the head of the villages used to pass the data to the tehsildar. While the Mohurirs endured the charge of keeping the registration in Dhalbhum, the Kazi and the Thakurs carried out the registration duties in Kharsawan, Kera, and Seraikela. Ultimately, the village data went through multiple channels to the Civil Surgeons for their interpretation.¹¹⁷

Even though the collaboration with the local ruling class made the government's task easy, it alone was not enough to assure the accuracy of the registration reports, as it did not deal with the lack of medical knowledge among the registering agencies. As a result, the appointment of Zamindars, Mankis, or the Mundas was definitely not an expected improvement over the chaukidars. Therefore, in 1875 the Sanitary Commissioner prepared a set of guidelines for improvement. He asked the local government to set up two independent agencies—the first one for collecting the mortality data and the other for supervision and interpretation. While the Government ordered the local zamindars to appoint chaukidars on their own, the Sanitary Commissioner proposed the government to take charge of their payment.

¹¹⁶ John Martin Coates, *Report of the Sanitary Commissioner for Bengal, for the year 1876*, (Calcutta: The Bengal Secretariat Press, 1877), 5.

¹¹⁷ Smith, op. cit., pp. 297.

On the other hand, the problems of supervision received great importance from the Sanitary Commissioner, and to overcome it, he suggested utilizing the duties of the government agencies such as tax collectors, municipal clerks, Gomashtha, etc. Further, the appointment of the paid men in cemeteries found importance in his report. It would have prevented the Adivasi communities from cremating the dead bodies in the night and could have been used to cross-check the Chaukidari reports. Over and above, the commissioner emphasised the necessity to introduce a Chaukidari Act to regulate the chaukidars in a legalized way, enabling the authority to punish them in case of false reports.¹¹⁸

However, the higher officials overlooked most of these suggestions, and the registration operations continued to be defective in Jharkhand. Despite its imperfections, registration created a knowledge base that would later help the government in dealing with the epidemics in Jharkhand. It also made it possible for them to intervene in the native life through vaccination projects, purification of water sources, quarantine, and regular policing of the areas prone to epidemics. Initially, the interventions were minimal. But they became increasingly prominent after the introduction of the registration systems, first in the municipalities and then in the rural areas.

2.2 History of Epidemic Diseases in Jharkhand:

Epidemic diseases have been an influential part of human history since the earliest times. Whether it was the plague in Rome, the black death in medieval Europe, or the smallpox among the native Americans, epidemics have altered the course of human history through their severity and mortality. Therefore, to better understand a particular society and its perceptions of health and diseases, it is necessary to inquire about the epidemics in a specific geographical

¹¹⁸ John M. Martin, op. cit., pp. 6.

space. This may also reveal the general nature of the population and the factors behind their reactions in any particular way.

In the nineteenth century, Jharkhand faced three major diseases—cholera, smallpox, and fever. While the fever returned the highest mortality rate during the last decades of the nineteenth century, this chapter instead discusses cholera and smallpox. There are two reasons behind excluding fever from the list of epidemics. Firstly, both the natives and the colonial medical discourse did not recognize the fever as an epidemic in the nineteenth century, and secondly, both cholera and smallpox offer a much more complex scenario regarding the colonial initiatives and the native reactions. The diverse and complex scenario produced by smallpox and cholera contributes much to our understanding of the European perceptions of epidemics and their influence in determining their course of action. Further, these two epidemics exposed the gulf between the native societies and the alien western perceptions that the British tried to breach through negotiation and oppression.

2.2.1. Epidemic Cholera

If the fourteenth century was the century of plague, the nineteenth century could be considered the century of cholera.¹¹⁹ Cholera was the “most formidable and fatal disease” that originated from India, more particularly from the deltaic Bengal, and raged around the world with an unabated fury.¹²⁰ The chief characteristic of cholera was its suddenness. While most of the patients died within a day of the first symptom’s appearance, there were numerous instances of the patients dying within a few hours of its appearance due to their weak constitution. To emphasize the impact of cholera from individual to individual, James Lind, the famous Scottish doctor and pioneering figure of naval hygiene, mentioned— “those which attack persons in

¹¹⁹ Christopher Hamlin, *Cholera: The Bibliography*, (Oxford: Oxford University Press, 2009)

¹²⁰ R. Steuart, and B. Philipps, *Reports on the Epidemic Cholera Which Has Raged Throughout Hindostan and the Peninsula of India Since August 1817*. (Bombay: Government of Bombay, 1819), p. i.

perfect health may be considered in light of what physicians term original diseases; but those fluxes which attack persons very much weakened by a fever, and reduced to a very low condition of the body, are properly symptomatic, as they proceed chiefly from the patient's debility and weakness..." Lind also stated— "no disease is more acute, or kills the patient sooner than cholera."¹²¹

In the European understanding, this uncertainty and suddenness of cholera created a general suspicion that "there is something essentially strange and mysterious in all that concerns this disease, and that it is almost hopeless to attend to lay down any principles of any kind regarding it."¹²² Generally, cholera included symptoms like—a sense of the epigastrium with watery purgings, stomach uneasiness, and meager pulse rate in its initial stage, developing into vomiting and purging colourless matter, and cramping from feet and legs with excruciating pains later. In case of a fatal attack, the body loses its energy and becomes bedewed with a cold, clammy sweat, occasionally suffers from blood, and is insensible to the stimulus of light. The patient collapsed with sunk eyes.¹²³

Even though it existed in India and parts of Europe for a few centuries under different names, the cholera epidemic of 1817 was the first to seek the European's attention due to its intense mortality rate. In 1817 started a century-long struggle between the states and cholera that ultimately contributed to numerous medico-scientific research. More importantly, cholera also provoked Western states to launch a series of sanitary and medical reforms to tackle the growing severity in Europe and other parts of the world. These reforms exemplified large-scale

¹²¹ James Lind, *An Essay on Diseases Incidental to Europeans in Hot Climates* (London: T. Becket and P.A. De Hondt, 1771), 275.

¹²² Second and third sections of the Report of the Commissioners appointed to inquire into the Cholera Epidemic of 1861 in Northern India, (Calcutta: Military Orphan Press, 1864), 258.

¹²³ David Arnold, *Colonizing the Body State Medicine and Epidemic Disease in Nineteenth-Century India*, (Berkeley Los Angeles, University of California Press, 1993), 160.

diversity by including all sections of the society irrespective of their position. It resulted in an unprecedented medicalization of the social space.

However, the medical interventions were not homogenous globally, and the states locally modified their action according to a geographical space, its climate, and the native population. Under this context, the British interventions in the colonies, especially in India, differed from the metropolitan ones. This disparity, however, was not an instantaneous phenomenon and had its roots in the European understanding of the “imaginary geography.”

Imaginary geography was the outcome of what Edward Said has mentioned as the European desire to familiarize a space that divided the geographical spaces between “ours” and “theirs” between “our land-barbarian land.” This dichotomy ultimately resulted in the boundaries of mind, differentiating a geographical space in terms of society, ethnicity, and culture.¹²⁴ The imaginary geography is essential to understand both the European understanding of cholera and the government initiatives in the context of Jharkhand.

Understanding imaginary geography is not an easy task, as it has had multiple versions over the years. Therefore, it is essential to explain the cholera outbreaks in terms of their metropolitan-colonial aspects. The metropolitan-colonial aspects represented the local and global perspectives that persistently influenced each other in determining the discourses of cholera. In the nineteenth century, the physicians and investigation committees tended to interpret cholera as “distinctly a provincial manifestation” that did not affect the whole region uniformly. Prominent scholars of Cholera, like James L. Bryden, the Scottish born Surgeon-major in India, too emphasised the local manifestations of cholera and found a few specific areas to be unsuited from the reproduction of cholera.¹²⁵ These theories of local manifestation

¹²⁴ Edward W. Said, *Orientalism*, (London: Routledge & Kegan Paul, 1878), 54.

¹²⁵ James L. Bryden, *Report on the cholera of 1866-68, and its relation to the cholera of previous epidemics*, (Calcutta: Office of Superintendent of Government printing, 1869), 13.

of cholera also became prominent among the physicians of colonial India from the 1870s onwards.

With the origin of the local manifestation theories, nineteenth-century physicians divided cholera into two categories. The primary outbreaks, being the most severe, were associated with particular geographical spaces that the investigation committees and physicians suspected as the breeding ground of cholera. More importantly, they interpreted the cholera outbreak in these natural habitats as inevitable due to specific geological and meteorological factors. This assumption of the inevitability of cholera drew the Government's attention, and much of the Government initiatives centred around resisting the primary outbreaks. On the other hand, the secondary outbreaks had nothing to do with any natural habitats of cholera. They were simply the results of the primary outbreaks diffusing themselves over the areas other than their usual habitats through the human agency and fomites.¹²⁶

As argued by Christopher Hamlin, the theories of the local manifestation of cholera found their ultimate expression through the "Asianization of Cholera." This Asianization was not any sudden phenomenon, and it went through a series of epidemic outbreaks and related research by the Europeans. There were two stages of the Asianization of cholera. Before the 1840s, the Europeans considered the sequence of cholera outbreaks as a mutated version of universal cholera morbus that first appeared in India. But this perception started to change with the influential works of the European physicians in India, like John Macpherson and Charles N. MacNamara. They tried to essentialize cholera with India, particularly with Bengal.¹²⁷

Even though both Macpherson and MacNamara were conscious of the relative absence of cholera in the Ancient Indian medical texts, they continued to propagate the ideas of cholera being Indian in origin. For example, Macpherson, in his famous book 'Annals of Cholera from

¹²⁶ Ibid., pp. 161.

¹²⁷ Hamlin, op. cit., pp. 35.

the Earliest Period to the Year 1817’ said, “the ancient writers on Indian medicine do not give nearly so clear and distinct an account of cholera as the Greek and Roman ones, and they afford no indication of any particularly virulent or epidemic form of the disease.”¹²⁸ Still, it did not discourage him from essentializing and eternalizing cholera with India and Bengal. On the other hand, MacNamara borrowed the examples of cholera from the ancient Indian writings of Sushruta and found the symptoms of a malady named ‘Vishuchika’ to be similar to the cholera of his contemporary times.¹²⁹ However, MacNamara was not the first to attempt to essentialize cholera with India by using the ancient Indian medical texts. Whitelaw Ainslie, a British surgeon and writer on *materia medica* in the first half of the nineteenth century used the description of “violent vomiting, purging, sinking of powers life” found in some ancient Indian texts to exemplify the presence of cholera in ancient India.¹³⁰

The major problem with the eternalization of cholera with India by exemplifying the ancient Indian texts is that it thoroughly overlooked the examples of pre-1817 cholera-like diseases both in India and in Europe. In India, the Portuguese were the first to counter a cholera epidemic at Goa in 1543. The account of the disease outbreak named Mordechin or Mordexin in the accounts of Garcia da Horta is similar to cholera.¹³¹ The French, on the other hand, faced their first encounter with cholera at Pondicherry in 1768. But these early outbreaks did not produce any accountable knowledge until the outbreak of the Great Asiatic cholera of 1817.

Apart from India, there were scattered cholera accounts in seventeenth-century Europe. Thomas Willy, a very prominent British physician and a founding member of Royal Society, in his description of the ‘non-bloody dysentery’ of 1670 in London, mentioned the suddenness

¹²⁸ John Macpherson, *Annals of Cholera from the Earliest Period to the Year 1817* (London: H.K. Lewis, 1884), 28.

¹²⁹ N. Charles MacNamara, *A History of Asiatic Cholera* (London: Macmillan and Co., 1876), 28.

¹³⁰ Whitelaw Ainslie, *Observations on the Cholera Morbus of India: A Letter Addressed to the Honourable Court of Directors of the East-India Company* (London: Kingsbury, Parbury, and Allen, 1825), 78–9.

¹³¹ International Sanitary Conference Report on the Origin, Endemicity, Transmissibility and propagation of Cholera, May 1868, (Calcutta: Home Secretary Press), 3.

of the disease that features a significant vomiting, watery stools, a failure of spirits, and loss of strength. During the outbreak in London, around 500 people died per week because of their weak pulse and cold sweat along with quick breath. A similar disease also broke out in Nîmes (1544), Mantua (1564), Ghent (1655), and many other towns of Europe. The colonial authors, busy with promoting Indian origins of cholera, paid little attention to these previous accounts of cholera in Europe and India.

By disregarding the cholera outbreaks before 1817, the colonial authority, along with European physicians, investigating committees, and registration agencies, intended to differentiate the events of India from the rest of the world. This impulse of localizing cholera became apparent as John Martin Coates, the Sanitary Commissioner for Bengal, said, “the object of registration is to localise disease so that the causes which produce it may be sought out and if possible, removed.”¹³² While the localization of cholera may appear as an isolated event happening in India, it was an integral part of the nineteenth century European understanding of an epidemic from a global perspective. This global perspective emerged because cholera repeatedly threatened India and the other parts of the globe. Cholera ravaged Europe through six major outbreaks in the nineteenth century, and therefore, the European powers assembled their force and knowledge to tackle the threat of cholera. Ultimately these associations linked the practices, careers, and multiple research projects in the metropolitans and the colonies and often of one colony with other colonies.¹³³ The increasing number of International Sanitary Conferences or the deputation of famous German physician and microbiologist Robert Koch to India in 1883 to study the cholera outbreaks are few prime examples of these growing international associations.

¹³² Coates, *op. cit.*, p. 3.

¹³³ Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Durham: Duke University Press, 2006), 9.

Approaching cholera, both in regards to its global influence and localization, is quite tricky. To complicate it further, the scholarly writings, both written by physician-investigation committees and the historians, heavily tend to interpret it in terms of the “regimes of difference.” For them, an epidemic is a spectrum to observe the differences between classes, nations, metropolitan-colony, and popular reactions. The differentiations are important for sure, but they should not be the only essence of our understanding of cholera. Therefore, it is essential to interpret the multiple dimensions of cholera-related scientific activities. It would allow us to understand science as a “realization” rather than “discovery” coming out of a complicated process of material constituents, concepts, cultural exchanges, and other social instruments.¹³⁴ Under such historical discourses, this research aims to comprehend the cholera of Jharkhand in the local, Indian and global context to understand the role that a fringe province can have in the European imaginations.

Coming back to the discussion of the imaginative geography of cholera, it was the result of not only the European imagination but also of the differentiation mentioned earlier between Indian cholera from European cholera that ultimately resulted in the localization of cholera in India, or more particularly, deltaic Bengal. More importantly, to overcome the anxiety that overtook the people of England and Europe in general, it became increasingly essential for the states and the scientific authorities to observe and understand the journey of cholera.¹³⁵ Therefore, the Europeans tried to investigate the route through which cholera diffused itself from the Deltaic Bengal to Europe and then to the other parts of the world. This resulted in the European’s producing some imaginative cholera maps stretched from the deltaic Bengal to North America.

¹³⁴ Projit Bihari Mukharji, “The “Cholera Cloud” in the Nineteenth-Century “British World”, in *Bulletin of the History of Medicine*, Vol. 86, No. 3 (Fall 2012): 318.

¹³⁵ John Snow, *On the Mode of Communication of Cholera*, (London: John Churchill, 1854), 1.

For the first time, an official cholera map was presented in the Annual Sanitary Report of the Sanitary Commissioner with the Government of India, 1869. It mentioned two epidemic highways—the Southern highway that crossed through the western, central, and northern India and continued up to Eastern Africa, and the deadlier Northern highway that diffused cholera from deltaic Bengal. During the epidemic of 1817, the Northern highway diffused cholera to Russia, and thereon, to Poland and then the rest of Europe. Later, in June 1832, cholera travelled to Canada and the United States, ravaging as far as the Pacific coasts, New York, New Orleans, and Ohio.¹³⁶

The Sanitary Commissioner placed Jharkhand in the south-east corner of this vital Northern highway.¹³⁷ Before the outbreaks in North India and Central India, cholera essentially had to cross through Jharkhand, and therefore, it became an epidemiological buffer state between the breeding ground of cholera in Bengal and its epidemic region in North India. Apart from the routes of diffusion, Europeans divided India into some imagined regions based on the severity of cholera. Subsequently, the concepts of the epidemic and endemic regions emerged, and Jharkhand became a part of the epidemic regions. It also shared a border with endemic regions of Bengal. These routes and geographical divisions became apparent during the epidemic of 1868. Cholera at first attacked the Army Cantonment at Ramgarh, Hazaribagh, and then travelled to Bihar and Ganges valley in 1868. Three years later, during the great epidemic of 1871 in Northern and Central India, the investigating committees and the Sanitary Commissioner with the Government of India were dismayed as cholera not only diffused itself through Jharkhand but also crossed the previously assumed limits of the endemic region.¹³⁸

¹³⁶ John M. Armstrong, “The Asiatic Cholera in St. Paul”, in *Minnesota History*, Sep., 1933, Vol. 14, No. 3 (Sep., 1933): pp. 288.

¹³⁷ Sixth Annual Report of the Sanitary Commissioner with the Government of India, 1869, (Calcutta: Office of the Superintendent of Government Printing, 1870), 188, 200, 230.

¹³⁸ Seventh Annual Report of the Sanitary Commissioner with the Government of India, 1870, (Calcutta: Office of the Superintendent of Government Printing, 1871), 23, 25.

Interestingly, there was no uniformity among the cholera maps. The colonial officials and the physicians modified it according to their times and outbreaks experience. James L. Bryden, a Scottish-born surgeon-major in India and one of the most prominent authorities on cholera, created a different version of the cholera map by dividing the epidemic areas of India into the Eastern and Western divisions. Initially, the vast area of the Gangetic provinces of Bihar, Oudh, and Bundelkhand was a part of the eastern division. However, cholera became more frequent at Hazaribagh since 1855, and therefore, the Chota Nagpur plateau became the eastern limit of the Eastern epidemic division in 1857. By 1866, Bryden found it to be quite usual for cholera to rise from the eastern sea level, and thereon, it approached the hills of Jharkhand bordering with the endemic areas of Bengal. Outside the endemic regions of Bengal proper, cholera usually diffused its wrath over the Hazaribagh plateau first, and thereon, devastated the Gangetic provinces repeatedly.¹³⁹ Bryden critically analysed the usual outbreaks at Jharkhand, and consequently specified Rajmahal hills as the border of epidemic and endemic areas.

The role played by even a “little-known province of the empire” like Jharkhand in the global epidemic imagination became more evident in 1869. By this time, the town of Deoghar repeatedly suffered outbreaks of cholera. Deoghar was the most important place of worship in the division, and every year lakhs and lakhs of people used to assemble here. The government was scared that Deoghar would develop into a cholera epicentre and consequently aimed to stop the outbreaks before they became a threat like in Puri. In August 1869, the Sub-Assistant Commissioner of Deoghar held a meeting with prominent local figures like—Maharaja Sir Jaimangal Singh Bahadur, Babu Iswarendu Dutt Jha, the High Priest of Vaidyanath temple, and Babu Nurchand Dutt Jha. In the meeting, Sub-Assistant Commissioner tried to explain the seriousness of the threat posed by cholera in Deoghar, not only in the provincial or the Indian

¹³⁹ James L. Bryden, Report on the cholera of 1866-68, and its relation to the cholera of previous epidemics, (Calcutta: Office of Superintendent of Government printing, 1869), 14,18,19, 29.

context but also among the sovereigns of Europe who had assembled at the Convention of Constantinople previously.¹⁴⁰ Thus, the barriers between a localized diffusion and a global diffusion overlapped. Any attempt to understand the imagined geography or the disease geography of cholera only in terms of the localization of cholera or the Asianization of cholera, as termed by Hamlin, can be misleading.

Apart from Bryden, the Sanitary Commissioner of Bengal was also in doubt regarding the proper place of Jharkhand in the cholera map. Due to its increasing outbreaks, he even considered shifting Jharkhand from an epidemic area to an endemic area in 1868. However, our knowledge of the outbreaks before 1868 is inadequate, as there was no official record-keeping system outside the government enclaves. Therefore, we have to primarily depend on the Jails and cantonments reports. The first mention of cholera in Jharkhand dated back to 1831. The Surgeon of Ramgarh, Hazaribagh, described the outbreak to be so severe that it nearly depopulated the southern part of the Hazaribagh plateau by the spring of 1831. Around 55 prisoners died in Sherghotty, and 350 people died in a village seven miles away from Hazaribagh. Even the operations of the colonial establishment of the Dak post stopped as three of the runners died in cholera, while the remaining were significantly weakened by it. Unlike the later events when cholera dispersed itself from the endemic areas of Bengal, the Madras troops travelling from cholera-affected areas of Machilipatnam and Secunderabad diffused the cholera of 1831 in Jharkhand.¹⁴¹

Between the cholera epidemics of 1831 and 1866, six other epidemics broke out in 1836-37, 1841, 1853, 1861, 1864, and 1865. But the available data is quite inadequate to trace their histories. Coming back to the epidemic of 1866, it was one of the most distressing outbreaks

¹⁴⁰ Proceedings, Government of Bengal, Department of General, Sanitary Branch, April, 1869, Nos- 22-25, p. 21-22.

¹⁴¹ Bryden, *op. cit.*, p. 100.

in the history of Jharkhand. While it affected all the districts of colonial Jharkhand, the severity at Singbhum was more remarkable than others. Similar to the six major epidemic outbreaks between 1831 and 1866, the details are extremely inadequate except for the jail reports of Chaibasa and Hazaribagh.

The first case of cholera in 1866 appeared on 17th March, and by the end of the month 14 people died. Even though there had been multiple outbreaks since April, the sudden disappearance of the disease made it hard for the physicians and the government to track the progress.¹⁴² In the Chaibasa Jail, 84 prisoners died, and 136 were admitted out of 228 prisoners. For the worst part, cholera combined its severity with the great famine that prevailed since 1865. As a result, the outbreak increased its decimating power, and the famine-stricken people of Singbhum could not sustain the dual attack. According to a Government report, a total of 2,080 people received treatment in the dispensary of Chaibasa. If we consider the unpopularity of the dispensaries in the nineteenth century Jharkhand, the actual fatality would have been quite a few times greater in the whole province. The police report of 1866 noted the extreme severity too, as it said, “Cholera is doing its work in a terrific way, were it not for the frightful havoc made by cholera, the sufferings from starvation would have been greatly increased, many have been carried off by cholera instead of being left to combat with want and hunger.”¹⁴³ Even though Hazaribagh suffered less than Singbhum, the colonial authority became anxious over the frequent outbreaks of cholera among the European troops stationed at Hazaribagh, and eventually considered the abandonment of the 27th European Regiment from Jharkhand. While cholera took the lives of only 13 soldiers, most of them died of fever. Together they created havoc in the European cantonment.¹⁴⁴

¹⁴² Smith, op. cit., p. 305-306.

¹⁴³ Bryden, op. cit., p. 124.

¹⁴⁴ H.W. Bellew, *Cholera in India, 1862 To 1881, Bengal Province, 1862 To 1881, And Review*, (Calcutta: Bengal Secretariat Press, 1884), 16.

In the 1870s, the ill effects of the nexus between the famine and cholera became more apparent in Jharkhand. Even so, Jharkhand was not unique in this nexus, and in some other parts of India, the process started in the first half of the nineteenth century. During the ‘Guntur famine’ of 1833, nearly two million people died in modern Andhra Pradesh because the famine combined its mortality with a deadly cholera outbreak. Apart from a few examples like the Guntur famine, this synchronization became increasingly devastating during the second half of the nineteenth century.¹⁴⁵

The outbreak of cholera and famines were independent but not unrelated. Cholera had its separate cyclic rule. An enquiry board in 1881 found that in a time span of three years, the first year and the second year tended to return a wider prevalence, while the third year registered less number of cases.¹⁴⁶ Even though the famines cannot diffuse cholera, the ecological factors that result into a famine also contribute much to the outbreaks of cholera. Cholera was most common in the season of drought and heat when the water level goes down, and the air becomes stagnant.¹⁴⁷ On the other hand, the continuation of this drought and heat for an extended period was one of the principal factors behind a famine. More importantly, a general lack of food during a famine generally forced people to depend on ‘unwholesome’ foods, jungly fruits, and other products. According to the colonial authority, the consumption of these unwholesome foods resulted in bowel complaints and diarrhoea, and therefore, to stop the famine-stricken people from consuming the jungly foods, the government opened famine relief camps and distributed wholesome foods such as rice and dal.¹⁴⁸

¹⁴⁵ David Arnold, Cholera and Colonialism in British India, *Past & Present*, No. 113 (Nov., 1986): 125.

¹⁴⁶ H.W. Bellew, History of Cholera in India, from 1862-1881 with a general statistical summary and deductions drawn therefrom: Prepared for the special committee on Cholera of 1881, (Lahore, Central Jail press, 1882), XCVII.

¹⁴⁷ Cholera epidemic of 1861, (Calcutta: O.C. Cutter Military Orphan press, 1864), 179.

¹⁴⁸ Proceedings, Government of Bengal, Political Department, Medical branch, May 1869, Nos. B. 22-30.

After the great famine of 1866, the nexus of famine and cholera in Jharkhand reappeared in 1878. This outbreak affected all the districts of the Chota Nagpur Division, especially Hazaribagh, where the death ratio reached a record mortality ratio of 3.06 per mille. It was much higher than the provincial death ratio of 1.58 per mille, and returned the fifth highest mortality ratio of the Bengal province. The outbreak reached its peak between March and August. At that point, the people of Jharkhand were already battling with drought and subsequent low harvest that would later emerge as a famine. Apart from the local people, the colonial enclaves too suffered severe mortality. In the Hazaribagh Central Jail, 89 out of the 715 prisoners died, returning a record mortality rate of 12.44 percent.¹⁴⁹ Besides Hazaribagh, the condition of Manbhum also deteriorated quickly. The famine here became so distressing alongside the cholera outbreak that the government had to offer relief works and gratuitous aid for several months. In all over the Chota Nagpur division of Jharkhand, 687 villages reported cholera, which was far greater than any of the previous years. In Hazaribagh alone, 2,323 people died of cholera.¹⁵⁰

The synchronization of cholera and famine reached its climax in 1897 as Jharkhand faced the deadliest epidemic in its history. The famine of 1897 resulted from an ill distribution of rains for the last three years. While the rainfall declined significantly in May 1895, the heavy fall of June, July and August resulted in an uneven distribution of the bhadoi crop. The following year followed a similar trend, as there was no rain in May 1896. In addition, there was an acute lack of rain in October and November that destroyed the Rabi crops following the insect's attack in late November. To deteriorate the situation further, the vital crop of mahua also failed due to the strong storm and rain in February and March. As a result of these, a severe famine affected

¹⁴⁹ Bellew, op. cit., p. 140.

¹⁵⁰ John Martin Coates, *Eleventh Annual Report of the Sanitary Commissioner for Bengal, Year 1878*, (Calcutta: The Bengal Secretariat Press, 1879), 11.

the districts of Barhi, Kodarma, and Ramgarh of Hazaribagh, Daltonganj, Garhwa, Latehar, and Patan of Palamau; south-western part of the Ranchi district, and the Manbhum district.

Along with the bad crop, the negative impact of the Forest Acts also became apparent during this famine period. While the Forest Acts affected all the native communities that depended on the forest, the Adivasi communities of Jharkhand were undoubtedly the utmost victims of it. Famines were not a new phenomenon to the Adivasi people, as their familiarity reflects through their folklores, but they found themselves trapped in the distressing situations that resulted from the deprivation of their forest rights. A Munda song depicts the wrath of famine in the following lines:

Asar Saon moyod rati ho banoa,
Bhadorge dharti nore-jana.
Chimente kage gamaia?
Sirmare Singbonga,
Otere Marangdeota;
Chimente kage, gamaia?
Lai-reng da-tetan.
Jige Senotana.

Translation (Sarat Chandra Roy)

In Ashar and Saon
Not a drop of rain,
Comes Bhado forth
Heat rends the earth,
O! Why, no rains as yet?
There up in heav'n,
And down below,
The Marang-Deo;
Yet why no more it rain'th?
The pangs of hunger.

Bring death-like languor,
With thirst severe,
In drought so drear,
We stand on th' brink of death!¹⁵¹

Generally, the Adivasi communities used to retreat to the jungle during an epidemic or a famine outbreak. By retreating to the jungles, they escaped from the contaminated zones and curtailed the chances of being in contact with the disease-affected individuals outside their villages and communities. More importantly, collecting the jungle foods during a period of food shortage was essential for them to survive. While this was a superior tactic to survive a famine or an epidemic compared to the chaos among the neighbouring communities, the colonial authority made no consideration to their livelihood. Instead, the authority snatched away the Adivasi community's rights to collect the jungly food from the reserve forests and thus, forced them to be increasingly dependent on the inadequate government relief programmes. The colonial authority was ignorant of the importance of substitute foods in Adivasi lives. As a result, they blamed the substitute foods for causing diarrhoea and increasing the death toll. For example, during the famine of Palamau in 1869, L.R. Forbes, the Extra Assistant Commissioner of Lohardaga district, asked the government to increase the wages of the labours so that they could afford better food than mahua. He also blamed mahua for being sufficient to cause cholera if eaten raw along with a large quantity of cold water.¹⁵² Such interpretations were the results of their lack of proper knowledge regarding the Adivasi communities and their livelihood.

The implication of the Forest Acts created a massive rupture in the lives of the people living near the forest areas. In many instances, the villagers deserted their villages as their rights of collecting necessary jungle products became punishable, and they had to pay fines if their cattle

¹⁵¹ Sarat Chandra Roy, *The Mundas and Their Country*, (Calcutta: Jogendra Nath Sarkar at the City book society, 1912), 332-333.

¹⁵² Proceedings, Government of Bengal, Political Department, Medical Branch, May 1869, Nos. B. 22-30.

crossed the boundaries of the forest by accident.¹⁵³ The government rarely made any considerations, and the poor people had to pay tax even on essential trees like mahua. For example, in 1896, when Palamau was on the verge of a devastating famine, the government decided to restrict the hereditary rights of using the jungle trees further. They distributed two to four trees per raiyat and taxed the excess trees at the rate of 2-4 annas.¹⁵⁴

On another occasion, during the peak time of famine and epidemic in 1897, both the Commissioner of Bhagalpur division and Deputy Forest Conservator refused to provide any relaxation in the form of free grazing. The taxation on animal grazing excluded the hereditary rights of the Paharia Adivasi community, as they used to bring their cattle to the jungle during the rainy seasons. Not only were they deprived of their communal rights, but officials even proposed to introduce a tax of two annas per cattle.¹⁵⁵ Clearly, the government had no intention of providing any relaxation to the communal and ancestral rights of the local communities, even during the most distressing times of Jharkhand.

Undoubtedly, the synchronization of the cholera epidemic with the pre-existing famine contributed most to this mortality ratio. But the simultaneous outbreaks of high fever cases and the regular exploitations of the government too intensified the mortality. Under this context of famine and government exploitation, the greatest epidemic in the history of Jharkhand appeared in 1897. This cholera outbreak disrupted Jharkhand's consistency in returning one of the lowest cholera mortalities in the Bengal province. It registered the highest death rate in the province for the first time, and it reached an alarming mortality ratio of 6.22 death per mille. This

¹⁵³ V. Ball, *Jungle Life in India or the Journeys and Journals of an Indian Geologist*, (London: Thos. De La Rue & Co., Bunhill Row, 1880), 349-50.

¹⁵⁴ D.H.E. Sunder, *Final Report on the Survey and Settlement of the Palamau Government Estate, Palamau District, In Chota Nagpur, Bengal, Seasons 1894-95 to 1896-97*, (Calcutta: Bengal Secretariat Press, 1898), 81.

¹⁵⁵ *Proceedings, Government of Bengal, Department of Finance, Agriculture branch, April 1897, Nos. 1-10, 2s/19, P. 1005-1007.*

mortality ratio significantly increased compared to the 1.13 death per mille ratio of 1896 and ultimately left behind Bengal and Bihar, which returned 2.86 and 1.48 deaths per mille, respectively. Additionally, three districts of Jharkhand spotted themselves in the top five most affected districts of Bengal. Lohardaga returned the highest mortality ratio among these districts with 8.02 deaths per mille, closely followed by Manbhum and Palamau, returning 7.00 and 6.61 deaths per mille. On the other hand, the Hazaribagh district returned a comparatively low death ratio of 5.48 per mille, even after cholera devastated its two major towns—Hazaribagh and Chatra.

The epidemic continued its ravage from 2nd June to 17th September in the Hazaribagh town, reaching its peak in July and August. While a total number of 418 people died in the town, the rural sections of Hazaribagh reported 1,105 deaths; Barkagaon alone reported 860 deaths out of 1,105. On the other hand, the mortality was most intense in the Lohardaga district. Even though cholera was short-lived in Lohardaga as it appeared on 17th August and continued for two months only, it devastated Ranchi and its rural circle, reporting 3,915 deaths. While the town of Lohardaga returned a total of 324 deaths at a ratio of 89.59 deaths per mille, the rural circle of Lohardaga also reported around 1,000 deaths.

The district of Manbhum received special attention from the colonial authority from an early time due to its proximity to endemic areas of Bengal. As a result, the government introduced several sanitary measures and purification of water sources since the 1880s. However, once great cholera arrived in 1897, these improvements played a minimal role in resisting its progress, and the epidemic prevailed throughout the year, from 21st February to 24th December. More importantly, cholera in Jharkhand first appeared in Manbhum, and thereon, it diffused to other parts of Jharkhand. While the town Purulia suffered 216 deaths, in the rural circle, the total number of fatalities reached as far as 1,709. Other than Purulia, the Jhalda circle also reported high mortality, and 1,053 died here. In Santhal Pargana, the sub-divisions of

Rajmahal, Pakur, Deoghar, and Godda also reported a heavy death toll of 1,088, 1,014, 1,709, and 1,990, respectively. The months with the highest intensity were March and April.¹⁵⁶

Districts	Ratio per 1000			Percentage of villages attacked		Total Number of cases
	1897	1896	Average of past ten years 1887-96	1897	1896	
Lohardaga	8.02	.15	1.16	13.61 (487 out of 3578)	.78	9061
Manbhum	7.00	3.20	1.60	14.58 (1213 out of 8317)	6.08	8365
Palamau	6.61	0.4	2.87	12.44 (447 out of 3591)	.16	3945
Hazaribagh	5.48	.84	1.02	6.30 (510 out of 8087)	1.68	6386
Santhal Pargana	4.05	1.15	1.11	15.94 (1796 out of 11,263)	2.02	7017
Singbhum	1.92	.46	.70	6.36 (183 out of 2877)	2.29	1049

Table 1- Number of deaths and affected villages in the cholera epidemic of 1897 in
Chota Nagpur

[Source: - H.J. Dyson, *Thirtieth Annual Report of the Sanitary Commissioner for Bengal, year 1897*, (Calcutta: The Bengal Secretariat Press, 1898)]

¹⁵⁶ H.J. Dyson, *Thirtieth Annual Report of the Sanitary Commissioner for Bengal, year 1897*, (Calcutta: The Bengal Secretariat Press, 1898), lxxvi.

While the famines were one of the significant factors in intensifying cholera in Jharkhand, the ill sanitary conditions also contributed extensively to the outbreaks. The role of the ill-sanitation became apparent during the epidemic cholera of 1868 for the first time, and thereon, it caused two other epidemics in 1869 and 1879. The data regarding the cholera epidemic of 1868 is minimal and imperfect due to the ill-organization and sparseness of the recently introduced registration agencies. However, contemporary sources reveal that outbreak affected all the areas of Jharkhand except for a few locations around the Ranchi plateau. At first, it appeared at Rajnadi and Burhurgawn of Palamau district, on 26th of June and caused eight deaths. The police took charge of the situation here and distributed cholera pills among the people.¹⁵⁷

The outbreak appeared to be far more devastating in Rajmahal, Santhal Pargana. At Rajmahal, it appeared at Deyarah in the middle of April and spread through the travellers passing by. In May, the epidemic reached its peak around the villages of Oodhwa, causing 885 deaths between April and December. On the other hand, in Hazaribagh, the travellers from the south introduced cholera in 1868. On 20th June, it broke out at Echak, a town known for its ill-sanitation, by two residents returning from Hazaribagh. Later a marriage party returning from Kharagdiha also came in contact with cholera, and two of them died.¹⁵⁸ As three members from a single family died in Kharagdiha, the local authority initiated an enquiry. In that enquiry, Dr. Delpratt, Civil Surgeon of Hazaribagh, found that the family collected the drinking water from a well near a filthy drain and family latrine. Therefore, the dirty surface water contaminated the well and caused cholera.¹⁵⁹ Luckily, the cholera in Hazaribagh was sporadic and did not spread beyond the town.

¹⁵⁷ Proceedings, Government of Bengal, General Department, Medical Branch, July, 1868, Nos- 24-27, p. 16.

¹⁵⁸ David, op. cit., p. 488-489.

¹⁵⁹ Ibid., pp. 489.

In the succeeding decades, the ill sanitary conditions of Jharkhand continued to be a significant aspect of the Government's epidemic control programmes, and almost all of the official reports contained repeated descriptions of them. After the epidemic of 1868, another severe cholera broke out in Jharkhand in 1869. At first, cholera reappeared at Chatra, a town with the most unsanitary atmosphere and practices, and thereon, it advanced to Hazaribagh on 1st March. In Hazaribagh, cholera diffused its wrath through a marriage procession in the village of Bugdah, and by the end of the year, 1,075 persons died of it. Besides the native spaces, it also affected the colonial enclaves like the central jail, where two constables died of cholera on October 14 by drinking water from a polluted source in the police barrack.¹⁶⁰

In the neighbouring district of Palamau, cholera broke out among the coolies of the government relief camps. After the death of the seven coolies, the outbreak created such an immense fear among the coolies that they started leaving the camp regardless of their poverty and lack of food. Once the coolies started deserting the relief camp, the government realized its seriousness because the coolies could diffuse the epidemic in the unaffected areas. Therefore, L.R. Forbes, Extra Assistant Commissioner of Lohardaga, soon visited the camps to assure the coolies. But in the relief camp, the coolies complained to him about the inhuman working conditions that encouraged them to leave the camp. Leaving with no other options, Forbes ordered to move the working hours earlier to avoid the scorching sun and provide better working conditions. He also initiated attempts to neutralize the fear of the Mohurirs (station in-charge) who used to flee from their duties at the first sight of cholera.¹⁶¹ In total, Palamau reported two thousand cases between 19th April and 15th July, of which 378 received treatment in the government dispensaries, and 111 had died.

¹⁶⁰ Bellew, op. cit., p. 41-42.

¹⁶¹ Proceedings, Government of Bengal, Political Department, Medical Branch, May, 1869, Nos. B. 22-30.

In the 1870s, the discourses of ill-sanitation combined with the colonial fear of jungle. As a result, the colonial officers started targeting the extensive forest lands of Jharkhand. While the jungles were primarily responsible for the fever, the inclusion of cholera in the disease discourse was not well researched. It happened rather hastily after the outbreak of one of the deadliest epidemics in the history of Jharkhand in 1879. Before the outbreak of 1879, the month of April received no rain, while an unusual heat preceded the rain in May. These meteorological conditions combined with the ill sanitation of Jharkhand intensified the epidemic's mortality rates.

The epidemic affected all the districts severely except Hazaribagh. In Santhal Pargana, virulent cholera appeared in the "unhealthy tracts" of Damin-i-Koh, Rajmahal, and Godda. These places were full of jungle and filthy reservoirs, and usually, the natives obtained their drinking water from these water bodies. Therefore, after infecting the reservoirs, cholera quickly spread among the natives, and soon the mortality reached an alarming rate in the villages here. In Dergamah, an enquiry found that cholera spread because the people accumulated drinking water from a particular nallah that they also used for bath, washing cloth, and even throwing the deceased persons' bodies. The role of the contaminated water sources and ill-sanitation became more evident because cholera quickly disappeared from Dergamah after the natives stopped using the water of the nallah. But it was already too late, and cholera dispersed in the nearby villages, causing extensive mortality in Barcope, Monihari, Godda, Motiah, and some other places. Along with Damin-i-Koh, Rajmahal, and Godda, the town of Deoghar in 1879 faced a severe outbreak of cholera too. It first appeared on 7th February, two days before the great Shivaratri festival, and a woman died in the hospital. While the first stream of the outbreak disappeared after 22nd February, the second stream soon reappeared in the middle of March around the

filthiest part of the town. The third and the most fatal wave came in September, resulting in 251 cases and 74 deaths.¹⁶²

The cholera of 1879 also fatally affected the district of Singbhum in the south of Jharkhand. The sadar town of Chaibasa returned the mortality ratio of 103.87 deaths per mille, which was the highest in the Bengal province. In total, 501 of its 4,823 inhabitants died in the epidemic. In Chaibasa, cholera first appeared on 1st June at the Barkandaj Toli, situated on the eastern side of town, causing 17 deaths. From there on, it transmitted itself over the other parts of the town. On 16th June, cholera emerged in the central and southern part of Chaibasa, and by 29th June, the whole town was under its grasp. As usual, the dry contaminated water sources caused this outbreak by combining with the favourable meteorological conditions. The seriousness of this mortality can easily be judged because Puri, one of the major epicentres of cholera in India, returned a much lower death ratio of 73.80 per mille compared to the 103.87 deaths per mille of Chaibasa. Apart from the Singbhum district, the princely states of Seraikela and Kharsawan also suffered from severe cholera and reported 587 and 143 deaths.¹⁶³

Interestingly, since the cholera outbreak of 1879, the European physicians and the officials increasingly became suspicious of the role of drinking water in diffusing cholera in Jharkhand. Even though the water-borne theory of cholera came forth in 1854 by John Snow, a prominent British physician and a founding father of epidemiology, the scholars and physicians of cholera did not accept this theory in the 1870s and 1880s. However, at Chaibasa, the Civil surgeon of Singbhum found that the people living on the opposite side of the severely affected areas of

¹⁶² John Martin Coates, *Twelfth Annual Report of the Sanitary Commissioner for Bengal, year 1879*, (Calcutta: The Bengal Secretariat Press, 1880), 43-44.

¹⁶³ Report on the Administration of Bengal, 1879-80 (Calcutta: Bengal Secretariat Press, 1880), 18.

Barkandaj toli had escaped the epidemic almost entirely because they used the river water, unlike others who had used the water from contaminated tank.¹⁶⁴

District	Ratio per mille		Percentage of villages attacked	
	1879	1878	1879	1878
Hazaribagh	1.61	3.15	3.14	4.41
Lohardaga	4.49	.32	7.69	1.66
Singbhum	3.69	.28	71.75	2.54
Manbhum	2.94	.67	8.89	1.96

Table 2- Death ratio per mille and number of affected villages in the cholera epidemic of 1879, Chota Nagpur Division.

[Source: - John Martin Coates, *Eleventh Annual Report of the Sanitary Commissioner for Bengal, Year 1878*. (Calcutta: The Bengal Secretariat Press, 1879)]

This observation at Barkandaj toli was not an isolated example. In another instance, during the outbreaks in Santhal Pargana, the civil surgeon found that the Santhal villages suffered far less than the *diku* villages (constituted of non-Adivasi migrants) because they did not allow baths and washing clothes in the tanks specific for drinking purposes. More importantly, the Santhals usually obtained their drinking water from natural sources—like rivers, springs, or clean water tanks—and forbade any sick persons, old or children, to defecate in the village. These ensured the purity of the water by curtailing the chances of contamination. As a result, the British officials praised the sanitary conditions of the Santhal villages despite their individual uncleanliness. The officials also complimented the Santhals for keeping their villages more hygienic; Santhals rarely dumped cow dung inside their villages, and their houses were less

¹⁶⁴ Ibid., pp. 46.

crowded than that of the neighbouring *dikus*. Further, the Santhals chose the sites of their settlements more carefully in the ranges with good, wide roads and natural drainage.¹⁶⁵

Apart from the famine and the ill-sanitation, the third major factor behind cholera outbreaks in Jharkhand were the pilgrims. Even though there were not too many prominent pilgrimage sites in Jharkhand, Deoghar alone attracted a large population of around two lakhs during the high seasons. Owing to this large floating population that arrived from all around the country, Deoghar continued to be a major site of cholera diffusion throughout the century. The first well-recorded cholera outbreak in Deoghar occurred during the Shivratri Mela in 1870 and gradually spread to the town by the 13th of February. The town authority employed many methars and erected a temporary cholera hospital in the dispensary compound to manage the outbreak. But it did little to help, and 41 people died of it.

For worse, many of the travellers, having contracted cholera during the mela, died on their way back. As a result, cholera spread over the neighbouring areas of Deoghar, and the sub-division of Rajmahal, sharing the border with Deoghar, became the first victim. On 10th March, it appeared in the Rajmahal town and claimed around 200 lives. Then it advanced to the epidemic-prone areas of Hazaribagh, making its first appearance in Kharagdiha. Gradually it grasped Pachamba, east-Kharagdiha, north and north-east Hazaribagh, Ramgarh, Bogodhur, and Chatra. During cholera's prevalence in the Hazaribagh town from 18th June to 21st August, 61 people died out of the 112 infected cases.¹⁶⁶ Along with the Hazaribagh district, Cholera also prevailed in Lohardaga district from May to September 1870. Here, the town of Ranchi reported 78 deaths, while the interior of the district registered 305 deaths. However, the accounts of Mr. Forbes, the Extra Assistant Commissioner of Lohardaga, mentioned that the

¹⁶⁵ Coates., op. cit., p. 22.

¹⁶⁶ David B. Smith, *Report of the Sanitary Commissioner for Bengal, For the year 1870-71*, (Calcutta: Bengal Secretariat Press, 1872), 23-24.

epidemic did not spread from Deoghar but from a pilgrim returning from the Allahabad fair, resulting in the opening up of a new route of epidemic outbreaks in Jharkhand.

Even though cholera fatally affected all the districts of Jharkhand in 1870, the diffusion at Hazaribagh, especially at Ramgarh, made the government anxious because it posed a threat to the health of the European soldiers stationed there. Soon their fear became a reality and cholera broke out in the army cantonment causing deaths. The Medical Officer of the 107th Regiment, however, blamed the transmission to a party of prisoners departed from Purulia rather than the pilgrims passing by. As a precautionary step, the Army authority quickly displaced the barracks and arranged the new camps seven miles away in the east of the cantonment. While this displacement of soldiers proved beneficial, cholera affected 21 soldiers, and 6 of them died.¹⁶⁷

Along with Deoghar and Allahabad, Puri, one of the most important epicentres, diffused cholera in Jharkhand too. The first of such instances occurred in July 1873, when a female pilgrim, returning from Puri, transmitted cholera in Chaibasa. Simultaneously, cholera appeared in the native state of Seraikela, and a large number of pilgrims coming back from Puri died on the journey. Thenceforth, it travelled to Ghatsila and ultimately to Manbhum. Manbhum faced an increasing number of outbreaks because of the influence of pilgrims, increasing communication, and the poor sanitary conditions over the past few years. Cholera first appeared in the ill-ventilated houses of a charitable old pleader, Babu Kailash Nath Chatterjee, who allowed as many as 60 people to accommodate his home. This overcrowding intensified the impact of cholera, resulting in the death of 25 people.¹⁶⁸ Still, for the most part, the epidemic confined itself to the lower and eastern portion of the Purulia town. The poorest

¹⁶⁷ Seventh Annual Report of the Sanitary Commissioner with the Government of India, 1870, (Calcutta: Office of the Superintendent of Government Printing, 1871), 23.

¹⁶⁸ Charles J. Jackson, Report of the Sanitary Commissioner for Bengal, For the year 1873, (Calcutta: The Bengal Secretariat Press, 1874), 50-51.

sections inhabiting these areas lacked a proper drinking water source. Most of these poor people used to drink water from an infected water tank instead of the lake made by the government.

In the 1880s, the prominent Hindu and Buddhist pilgrimage site of Gaya started diffusing cholera in Jharkhand too. The virulent outbreak that broke out in the Garwan circle, Hazaribagh in 1880 was the first of them. This outbreak appeared in two waves—the first one from March to June, followed by the second one in October. On the 2nd March, cholera first appeared in Basodi and Simaldi through a pilgrim travelling back from Gaya. By 14th March, both Basodi and Simaldi started returning a considerable number of deaths. Garwan came under its influence on 16th March, and 264 out of the 387 affected people died. In Garwan, the factors of the pilgrims combined with the meteorological and geological characteristics. The Civil Surgeon of Hazaribagh reported a deficient rainfall in the early parts of the rainy season, which instigated the chances of dispersing cholera. Additionally, he stressed the importance of landscape in determining the intensity of cholera. The civil surgeon divided the district into two parts—high land and low land—and regarded the low grounds like Garwan, with around 600 feet above the sea level, to be more prone to the cholera epidemic between March and the beginning of June.¹⁶⁹

Coming back to Deoghar, it continued to be a significant concern for the government in the 1880s. Even though the Government introduced a series of reforms and restrictions to counter the outbreaks in Deoghar, which will be discussed in the succeeding chapter, they failed to check the frequent outbreaks. This became apparent in 1882 as Deoghar diffused cholera in Jharkhand yet again. The district of Santhal Pargana became its immediate victim, resulting in one of the most fatal cholera outbreaks ever. While the Government agencies registered the death ratio of 1.13 per mille, the Civil Surgeon of Santhal Pargana believed it to be far greater

¹⁶⁹ Bellew, op. cit., p. 160-161.

than that. Deoghar, being critically affected by cholera, returned the mortality ratio of 5.49 per mille. The Government assumed that the pilgrims travelling from lower Bengal carried the disease to Deoghar and engulfed the areas like Saruth and Jamtara, previously known for their absence of cholera. In Dumka, the sadar town of Santhal Pargana, the epidemic reached through two merchant brothers returning from Deoghar. From there on, it continued travelling eastward, going as far as Sahebganj and Godda in March.

The second wave of the cholera epidemic of 1882 was deadlier than the first one. Cholera caused the death of 24 people in the Dumka Bazar first. In a semi-virulent form, it also affected Sahebganj, a town of growing importance, and resulted in 61 deaths. But surprisingly, the mortality was relatively under control at Deoghar with only 26 deaths, while it took the most virulent form at Rohini, another important site of spiritual importance. In Rohini, 185 people died out of the 288 affected cases. On the other hand, the Government became anxious over the repeated outbreaks in Rohini because it posed a threat to introduce a new hotspot of cholera in the sub-division. Therefore, Dr. Lidderdale, the civil surgeon of Santhal Pargana, carried on an inspection of Rohini to track down the local factors of the outbreak. After the inspection, he concluded that the primary factor behind the repeated outbreaks was not the pilgrims but the impure and deficient water supply of Rohini. In Rohini, some influential local natives, such as Babu Haragauri Prasad and Tarini Prasad, came forward to help the people and appointed a native doctor. This was one of the few examples of the natives initiating the western treatments and medical initiatives in Jharkhand. Still, by the end of the century, the number of such activities would increase. In total, 332 of the 9,563 villages reported the cholera outbreak by the end of the year in Santhal Pargana of Jharkhand.¹⁷⁰

¹⁷⁰ F.W.A. Defabeck, *Fifteenth Annual Report of the Sanitary Commissioner for Bengal, year 1882*, (Calcutta: The Bengal Secretariat Press, 1883), 31-32.

The sufferings of Santhal Pargana did not cease here, and the cholera outbreaks continued to grow more severe in the following years. After the relatively healthy year of 1883, another virulent cholera broke out in Santhal Pargana in 1884, surpassing the epidemic of 1882 in extremity. But unlike the previous years, the physicians and the government did not hold the unsanitary conditions or pilgrims responsible for the outbreak. Rather they stressed the peculiarities of the prevailing meteorological conditions and compared the increase-decrease of cholera with rainfall, temperature, and the depth of subsoil water level. The epidemic began to rage from March. Even though the temperature was rising there was no rainfall at all. The water scarcity worsened in May when the temperature was highest but the rainfall, being far less than the average normal, was only 1.02 inches. Ultimately, the intensity of the cholera outbreak decreased in June, as the temperature suddenly decreased and the rain increased significantly. The Sanitary officer of Santhal Pargana attributed the outbreak to the phenomenon of increased sub-soil water levels. During the outbreak of 1884, cholera once more attacked the Bazar area of Dumka, resulting in 38 deaths. Later it spread out to 81 villages of the sub-division and increased the total death toll to 230. The intensity of cholera was so grave that most of the patients died within 24 hours of contracting it.¹⁷¹

As the cholera of 1884 increased in severity, the district of Manbhum, sharing a border with Santhal Pargana, suffered a significant loss in 1884. Here, the villages of Jaipur, Nirsha, and Topechanchi became some of the most severely affected places in the province, registering a mortality rate of 4.82, 4.79, and 4.68 per mille, consecutively. But in contrast to the Sanitary Officer of Santhal Pargana, the Civil Surgeon of Manbhum blamed the “very defective-bad water, miserable huts, accumulated filth” for this virulent cholera. Further, he pointed out that the presence of the tanneries contributed significantly to the unsanitary conditions of the

¹⁷¹ R. Lidderdale, *Seventeenth Annual Report of the Sanitary Commissioner for Bengal, year 1884*, (Calcutta: The Bengal Secretariat Press, 1885), 42-43.

affected villages, as the villagers used to drink the same contaminated water of the river Barakar in which they usually washed the moist hides.¹⁷²

Districts	Percentage of villages attacked		Mortality rate		Unhealthy months
	In 1884	Increase or decrease in compare to 1883	Number of deaths	Ratio per mille	
Hazaribagh	2.20	1.02 I	1266	1.16	April to August
Lohardaga	.18	.34 D	191	.11	July and August
Singbhum	.76	.51 I	112	.19	April and May
Manbhum	5.47	4.43 I	1849	1.74	April to July
Santhal Pargana	5.30	4.49 I	2670	1.73	March to May

Table 3- Cholera Epidemic in Chota Nagpur, 1884.

[Source- R. Lidderdale, Seventeenth Annual Report of the Sanitary Commissioner for Bengal, year 1884, (Calcutta: The Bengal Secretariat Press, 1885)]

Even though such meteorological disbalances were a prominent factor behind the cholera outbreaks, they never received proper attention from the government. Instead, the government was more interested to understand the impact of the ill-sanitation and the pilgrimage sites. This priority became apparent again in 1891 when very virulent cholera broke out in many parts of Jharkhand. 1891 was the year of Ardhodaya Jog—a Hindu festival celebrated once every thirty years. During the festival, lakhs of Hindus gathered at the Ganges for a bathing ritual, and thereafter, returned to their native places. This diffused terrible cholera in many parts of the Bengal province, including Jharkhand in 1892. The colonial government anticipated such an outbreak and arranged proper water-supply conservancy and sanitation. Yet these

¹⁷² Ibid., pp. 52.

arrangements did little to prevent the outburst. The Civil Surgeon of Santhal Pargana recalled the deaths to be excessively heavy, reporting 5,525 deaths compared to 1,756 of the previous year. Moreover, the festival followed a span of scarce rain and excess heat which dried the drinking water sources and river beds. While the pure water sources became increasingly inadequate, the practice of disposing of dead bodies in the river beds posed a serious threat too.

The first case of cholera in 1892 appeared on 25th June. A yogi travelling from Haridwar died near a bund tank in Dumka due to cholera. But before dying, the yogi contaminated the tank's water, and hence, several people died within 24 hours of using the same water. On 26th June, a woman and her three sons got cholera immediately after they took a bath and drank the tank's water. Three more died on 27th June. As a result, the government closed the tank for public use, and the outbreak ceased for two months. But it reappeared on 25th August when a 'strong looking' Santhal fell victim to cholera after using the tank's water for cooking. A tank near the Dumka jail too became contaminated because of the direct drainage disposal from the prison and dispensary. This tank favoured the spread of cholera in the surrounding localities.¹⁷³ This cholera epidemic of 1892 was the last of the series of outbreaks in the nineteenth century caused by the pilgrimage. Since then, some cholera epidemics broke out in the remaining eight years of the nineteenth century, but neither the physicians nor the government attributed them to the pilgrimages. Instead, as we have discussed previously, the meteorological conditions, combined with famine and scarcity, emerged as the prominent discourse behind the outbreaks.

2.2.2. Smallpox

Before the arrival of the plague in the last few years of the nineteenth century, smallpox was the second major epidemic in Jharkhand. But unlike cholera, towards smallpox the natives and the government had a very different perspective. It was neither native to India nor unknown to

¹⁷³ W.H. Gregg, Twenty-Fifth Annual Report of the Sanitary Commissioner for Bengal, year 1892, (Calcutta: The Bengal Secretariat Press, 1893), 20-21.

the Europeans. As a result, while the Europeans localized cholera to India, smallpox was universal in nature. This universality and familiarity determined the course of the government initiatives to a great extent, resulting in their interventions being regular but not extensive or radical like cholera. The natives, on the other hand, had their own differentiation between cholera and smallpox. While cholera's divinity was limited mainly to the worship of 'Ola Bibi' in deltaic Bengal, nearly all the Adivasi communities and the other natives of Jharkhand had their own sets of gods-goddess and beliefs pertaining smallpox.

While the existence of cholera in ancient India was very doubtful, and there are only a few numbers of scattered and indirect mentions of some cholera-like diseases, smallpox, in contrast, was a very familiar disease. In the Ayurvedic medical tradition, most of the diseases, along with smallpox or masurika, are described as the result of the imbalance of three humors or tridosha—air (*vayu*), bile (*pitta*), and phlegm (*kofa*). These three humors govern the physiological activities of a body, and when one of them is in excess, diseases and death appear. These elements form the “fabric of body” with other essential appendages and impurities.¹⁷⁴ Radha Kanta Dev, a prominent Sanskrit scholar and the leader of the conservative sections in Calcutta, in 1831 blamed the “continuously using pungent, acids, or saline things, alkali, or potus and unwholesome mixtures, such as fish with milk” for causing smallpox.¹⁷⁵

Apart from these arguments, the Indian medical traditions, both Ayurveda and other folk traditions, embodied a strong sense of contagiousness of smallpox. In Sanskrit, it is called 'sunchare or sankramic roga,' which means a contagious disease.¹⁷⁶ The idea of smallpox's contagiousness was most visible during the smallpox inoculations. The inoculators usually performed their operation only after the pregnant women and the previously uninfected and

¹⁷⁴ T. A. Wise, *Commentary on the Hindu System of Medicine*, (Calcutta: Messrs. Thacker and Co., 1845), 42-43.

¹⁷⁵ Radha Kanta Deb, "Account of the Tikadars" in *Transactions of the Medical and Physical Society of Calcutta*, vol. 5, (1831): pp. 418-419.

¹⁷⁶ *Ibid.*, p. 417.

uninoculated family members left the house. While the Europeans generally ascribed these practices as ‘superstitious’ and ‘irrational,’ it stands for the native consciousness of the contagious nature of smallpox. They thoroughly failed to realise the practical importance of the rituals.

Along with the Ayurvedic practitioners, the consciousness regarding the contagious diseases prevailed very prominently among the Adivasi communities of Jharkhand. But rather than theorizing it, they practiced a separate burial system for those who died of smallpox. For example, the Hos community buried the dead bodies during cholera and smallpox outbreaks instead of the usual practice of cremation.¹⁷⁷ On the other hand, the Paharias of Rajmahal used to take away a person dying of smallpox into the jungle far away from the village and then left him under a tree covered with leaves and branches. Later, the accompanying party had to take a compulsory bath before entering the village.

Other than the native perceptions of contagiousness, smallpox also offers us some very crucial perspectives regarding the process through which specific communities assimilated the alien medical perceptions and practices within their standard sets of beliefs. This also becomes important in the context of assimilationism and Sanskritization between a greater and a smaller tradition, propagated by many scholars like G.S. Ghurye and M.N. Srinivas, two prominent sociologists of the twentieth century.

In the context of the Adivasi medical discourses, the Adivasi communities exemplified one of the most unique appropriations of the prominent Hindu beliefs as per their convenience. Traditionally, the Adivasi communities like the Oraons either retreated in the deep jungle or took refuge in the worship of Chala Pachcho, their goddess of smallpox, once the epidemic broke out. According to the Oraon legends, Chala Pachcho moves around the village road on

¹⁷⁷ O'Malley, op. cit., p. 81.

the back of the Deswali spirit (guardian or gatekeeper of the village) with a small stick in her hand and bells jingling from her neck to suppress the epidemic. But it is interesting to note that with the growing influence of the dikus or the outsiders, Chala Pachcho gradually became accustomed to ‘*Gaon-deoti*’ or ‘*Devi-mai*’. Prominent anthropologists like S.C. Roy has traced the origin of the *Devi-mai* in the neighbouring Hindu goddess Sitala who also holds a broom in her hand. But it was not a simple borrowing from a neighbouring community as the Oraons had reappropriated the goddess Sitala in their way. In the Oraon medical discourse, the broom represented the epidemics itself in contrast to the Hindu culture that believed Devi Sitala swept away the germs and then collected them in the dustpan. So, the broom symbolised the epidemic itself in the Oraon discourse rather than symbolizing the cure. Unfortunately, Roy has overlooked this aspect even after collecting Oraon folklores that vividly reflect this. A Jadur song, performed during the Sarhul festival, has a description of the epidemic stricken Oraon people of Rohtasgarh before they came to Chota Nagpur,

Jadur Songs

*Chalki-binrio bara laggi,
Gucha bhongot Rohidas Kila
Lahar lahar chalki-binrio bara-laggi,
Dahar dahar guche bhongot Rohidas Kila.*

Translation (Sarat Chandra Roy)

Broomstick-earstick is coming on,
Away let us fly Rohidas Fort.
Flaming forth the scourge doth come,
Along the road let's fly to Rohidas fort.¹⁷⁸

¹⁷⁸ Sarat Chandra Roy, *The Oraons of Chota Nagpur: Their History, Economic Life, and Social Organization*, (Ranchi: The Bar Library, 1915), 477.

The first lucid description of smallpox in Jharkhand was found in 1865. Before that, we have only the Army and jail reports to show its prevalence. However, Lieutenant Tickell, a famous Army officer and a linguist, previously mentioned severe smallpox in his account. During his travel through Singbhum in the 1830s, he found that the Hos villagers had left their villages and taken refuge in the jungle due to an outbreak of smallpox. Tickell blamed the Oriya Brahmin inoculators for diffusing the smallpox epidemic through their imperfect inoculating practice in Kolhan.¹⁷⁹

Much later, in 1860, a sporadic smallpox broke out among the prisoners of Chaibasa jail and took the lives of ten prisoners. The Civil Surgeon of Singbhum blamed an army detachment returning from Ranchi for this outbreak. The next big smallpox breakout occurred at Singbhum in 1866. As this outbreak was epidemic in nature, it killed around 85 people out of a total of 280 cases in some four or five villages around Chaibasa. According to the Government Officers, the nature of this smallpox was not severe. But patients died because they practiced rubbing turmeric and ashes over the pustules and exposed it to the sun. The Europeans found it to be very peculiar.¹⁸⁰

Other than these small-scale sporadic outbreaks, the first major smallpox epidemic in Jharkhand appeared in 1872. The casualty was so high that 1872 returned a mortality rate three times higher than the previous year in the Chota Nagpur division. On the other hand, the Santhal Pargana returned half the number of cases in the Bhagalpur Division. Even though the outbreak was severe, the government could not initiate many actions as the uneven nature of the epidemic made it difficult for them to take any uniform measures. While in Hazaribagh, the month of April contributed 30.76% of the total cases, in Lohardaga, the epidemic appeared far

¹⁷⁹ Lieut. Tickell, "Memoir on The Hodesum (Improperly Called Kolehan)", *The Journal of The Asiatic Society of Bengal*, Vol. ix, 1840: pp. 706.

¹⁸⁰ Smith, op. cit., p. 305.

before its regular season in January, single-handedly reporting 26.02% of the total smallpox cases in Chota Nagpur division of Jharkhand.

On the other hand, in the district of Santhal Pargana, the epidemic reached its peak during June-July, returning 26.53% and 22.44% deaths in only two months. Here the outbreak was a result of the negligence of the government agencies who did not bother to report the epidemic until it became very severe.¹⁸¹ In January, smallpox first appeared in the village of Shoorma, mainly inhabited by the Santhals and the Paharias, in the interior of Pakur. Rather than taking initiatives to check the diffusion, the government limited itself in blaming the inoculation operations for the diffusion. This trend to blame inoculation continued in the outbreaks of Koolkha, Koopapahar, and Raghunathpur, all of which were Adivasi villages. As the government failed to limit the diffusion, the disease diffused through railway and reached Kanklotea Bazar, Sahebganj, in March. A total number of 12 people died there.¹⁸² By the end of the year, the outbreak grasped Rasikpur, a village two miles away from Naya Dumka. At last, the government, out of its concern of securing the essential colonial enclaves of Dumka, took strict initiatives and cut down all possible communications of the civil station of Dumka with the surrounding localities.¹⁸³

In the 1880s, there were four outbreaks of smallpox in Jharkhand. But none of them were severe and were primarily localized in their diffusion. Only the smallpox of 1880 caused some fatalities at Lohardaga, and Ranchi suffered the most with a return of 11.41 deaths per mille, followed by the Korea circle (5.48 deaths per mille). As usual, the government escaped from

¹⁸¹ Jackson, op. cit., p. 73.

¹⁸² J. Campbell Brown, *Report on Vaccination in the Province of Bengal, for the year ending 31st March 1873*, (Calcutta: The Bengal Secretariat Press, 1873), 42-43.

¹⁸³ Jackson, op. cit., p. 74.

the challenging task of finding out the reasons for growing mortality and instead attributed the mortality to the improvement of registration system over the years.¹⁸⁴

Similar to the smallpox outbreak of 1872, the outbreak of 1882 too ravaged the Santhal Pargana. However, this time the epicentre was the Godda sub-division instead of Pakur. In Godda, 120 died of smallpox. Further south of Jharkhand, the epidemic took its most virulent form in Chaibasa, Singbhum. It travelled from Keorgur, Orissa and infected 327 people, killing 73. From there on, smallpox travelled to Raghunathpur through a dhobi who had washed the clothes of an infected constable.¹⁸⁵ In Raghunathpur, Manbhum, the smallpox outbreaks almost became endemic, as it prevailed for three years continuously. Most interestingly, during the smallpox epidemic of 1882, the government realised that vaccination was not as effective as they thought because an enquiry board found that smallpox affected people irrespective of vaccination. Among the 327 persons attacked by smallpox in Singbhum, 136 or 41.5% received vaccination previously, while 13 or 3.9% were inoculated, and 18 or 5.5% were unprotected. These statistics stand in direct contrast with the government's claim of superiority of the western vaccination, and therefore, also raises the question of the rationality behind the whole vaccination project. It also questions the rationality behind exterminating the indigenous inoculation practices by considering them unscientific and irrational.

The smallpox of 1882 continued its ravages to the following year in Singbhum and Santhal Pargana in a more virulent form. This time, the death toll in Singbhum increased to 212, and Deoghar in Santhal Pargana became its epicentre. In 1873, smallpox first broke out in February through a merchant travelling from the epidemic areas of Patna. The epidemic spread from this village to the Deoghar town, and the government undertook a few initiatives like vaccination

¹⁸⁴ Robert Lidderdale, Thirteenth Annual Report of the Sanitary Commissioner for Bengal, year 1880, (Calcutta: The Bengal Secretariat Press, 1881), 52.

¹⁸⁵ Defabeck, op. cit., p. 37.

operations to resist it. However, the people of Deoghar opposed the interferences strongly which compelled the government to introduced the Compulsory Vaccination Act in Deoghar. But it was too late to stop the diffusion, and the epidemic grasped Rakti, Sarwan, Maharwa, and other places. After this epidemic of 1882, the next two smallpox epidemics of 1889 and 1890 confined themselves to Manbhum only. In 1889, around 188 people died, and the death ratio moved up to 0.17 per mille. On the other hand, the smallpox epidemic of 1890 was not a continuation of the last year's epidemic and transmitted from Midnapur. The intensity of the epidemic was highest between February and June 1890.

As discussed previously, Puri and the other parts of Orissa played a significant role in diffusing epidemics in Jharkhand. Even though it was limited to cholera initially, from 1891 onwards smallpox also started diffusing from Puri. Being conscious of the threat that this new route possessed the government was naturally concerned. But rather than making plans to counter this threat, the officials blamed each other. For example, the Superintendent of vaccination, Chota Nagpur circle, accused his counterpart in Orissa of not warning him or the Sanitary Commissioner regarding the outbreaks in Orissa. As a result of the miscommunication, the authorities in Chota Nagpur were late to respond, and the death toll registered a new record of mortality of 1.16 per mille in the town Chaibasa. Further in the north, 596 out of 8,053 villages of Lohardaga reported smallpox outbreaks, and a total number of 1,180 died due to these outbreaks. The death ratio was 0.68 per mille in Lohardaga, seconded by Singbhum with 0.37 death per mille.¹⁸⁶

In the nineteenth century, one of the last severe smallpox in Jharkhand broke out in 1892. The fatality of the smallpox epidemic of 1892 was so high that the death ratio registered a new record of 0.82 per mille, which was a significant increase compared to the 0.32 per mille

¹⁸⁶ W.H. Gregg, Twenty-Fourth Annual Report of the Sanitary Commissioner for Bengal, year 1891, (Calcutta: The Bengal Secretariat Press, 1892), 34.

mortality ratio of 1891. It is easy to understand the seriousness of the mortality from the fact that the average mortality from the smallpox outbreaks between 1887-1891 was only 0.11 per mille, nearly eight times lower than the mortality of 1892. During the epidemic, Lohardaga registered the highest mortality in Jharkhand, and the third highest in the Bengal province, reaching 7.17 deaths per mille. The rural sections of Kochdega (Lohardaga), Ramgarh (Hazaribagh), Mandar (Lohardaga), Latehar (Palamau) returned some of the highest mortality ratios in the Bengal province. In Lohardaga, 723 out of the 3,578 villages and in Palamau, 333 out of 3,591 villages reported deaths. In June, the epidemic reached its pinnacle, causing 531 deaths in Lohardaga alone. Apart from Lohardaga, the outbreak also devastated Jhalda in Manbhum (deaths 3.68 per mille). But surprisingly, the rest of the Manbhum district escaped any outbreaks, reporting smallpox from only 90 of its 7,928 villages. While the northern districts were facing a hard time due to the smallpox outbreak, the southern section of Singbhum reported very few cases.¹⁸⁷

In conclusion, we can see that the severity of epidemic diseases like cholera and smallpox increased over the years, both in terms of mortality and frequency. While the increase in mortality can, up to a certain extent, be attributed to the introduction of registration agencies and their betterment over the years, that does not alter the reality that epidemics became increasingly common in Jharkhand. More importantly, in the study of cholera, it is observed that even a fringe landscape like Jharkhand can play a more prominent role in the European imagination of the disease geography. Therefore, any outbreak in Jharkhand was not a local or regional affair, but a national and international affair too. This determined the courses of the government actions that will be discussed in the succeeding chapter. Apart from the imagined

¹⁸⁷ W.H. Gregg, Twenty-Fifth Annual Report of the Sanitary Commissioner for Bengal, year 1892, (Calcutta: The Bengal Secretariat Press, 1893)

geography of cholera, there were three major factors behind the outbreaks—famines, ill-sanitation, and pilgrimages. Most of the cholera outbreaks in Jharkhand fit in these categories.

On the other hand, smallpox was far different from cholera. It was not a part of the European imagination of disease geography, and therefore, remained a local and regional affair. However, the western medical initiatives against smallpox were more extensive and oppressive than cholera. While in the case of cholera, the colonial authority was unsure of its causes and diffusion, smallpox, being a familiar disease, provided more confidence to the British administration. The next chapter will explain the initiatives against smallpox, mainly vaccination, in detail.

Chapter 4

Preventing the Epidemic: Colonial State Initiatives and the Native Reactions

“The purpose of government is to protect its citizens, and a government which fails to shelter its citizens against infection is neither intelligent nor moral.”

- Victor C. Vaughan (Infection and Immunity, 1915)

Since ancient times, the ideas of health and diseases had a profound influence over human lives and their thinkings. The ancient Greeks conferred a great value in understanding a patient's health in the context of an individual's social and natural environment. They defined health as a balance among the four humors- yellow bile, black bile, blood, and phlem. Any disbalance among these humours causes diseases. The father of the Greek medicine, Hippocrates, practiced natural approaches to treat any deprivation of health. He introduced a tradition of treating patients based on their complete medical history, age, gender, diet, geographical location, and climate.¹⁸⁸ On the other hand, the Indian tradition of Ayurveda considers a human body as a system of functioning relationships instead of examining it as an organism. These functioning relationships is based on *tridosha*- *vata*, *pitta*, and *kapha*. Similar to the Greek concepts of humour, diseases appear once any of these dosha dysfunctions.¹⁸⁹

The World Health Organization defines health as a state of “complete physical, mental and social well-being and not merely the absence of disease or infirmity.”¹⁹⁰ But prominent scholars

¹⁸⁸ CF. Kleisariis, C. Sfakianakis, IV. Papathanasiou. “Health care practices in ancient Greece: The Hippocratic ideal,” *Journal of Medical Ethics and History of Medicine*, 7(1):6 (2015): 1-5.

¹⁸⁹ Rama Jayasundar, “Ayurveda: a distinctive approach to health and diseases,” *Current science*, Vol. 98, No. 7 (April, 2010): pp.908-914.

¹⁹⁰ Constitution of the World Health Organization, 1948, [Constitution of the World Health Organization \(who.int\)](http://www.who.int)

of medical history, such as Owsei Temkin has described health differently. According to him, health is a shape “in which we neither suffer pain nor are hindered in the functions of daily life.”¹⁹¹ Temkin further stressed the importance of understanding a disease in the context of its historical times as the physicians are a part of their contemporary socio-cultural developments. Therefore, they utilize the intellectual tools of their generations to make ‘etiologic and therapeutic sense’ of the concepts of disease and epidemics.¹⁹²

As discussed in the introduction chapter, the definition of a disease or an epidemic has undergone some extensive changes in the nineteenth century. The interplay between an individual and the social perspectives of a disease encouraged the state to control not only the body of individual patients but also the space surrounding them. Diseases, therefore, shifted from an individual space to a communitarian space, and the illness of an individual became a threat to the society.¹⁹³

‘Disease’ is a vast category, and an epidemic is a crucial part of it. The Centres for Disease Control and Prevention (CDC), United States, describe an epidemic as an unexpected surge in the number of cases over a specific geographical space.¹⁹⁴ But prominent scholars like Charles E. Rosenberg defines it more precisely. He states an epidemic as a disease that “start at a moment in time, proceed on a stage limited in space and duration, follow a plot line of

¹⁹¹ Owsei Temkin, "The Scientific Approach to Disease: Specific Entity and Individual Sickness", in *Scientific Change, Historical Studies in the Intellectual, Social and Technical Conditions for Scientific Discovery and Technical Invention from Antiquity to the Present*, ed. A. C. Crombie, (London: Heinemann, 1963), 637.

¹⁹² Charles E. Rosenberg, "What Is Disease? In Memory of Owsei Temkin," *Bulletin of the History of Medicine*, Vol. 77, No.3 (Fall 2003): pp. 491-505.

¹⁹³ Vladimir Jankovic, *Confronting the Climate: British Airs and the Making of Environmental Medicine* (Basingstoke: Palgrave Macmillan, 2010); Charles E. Rosenberg, *Cholera in Nineteenth-Century Europe: A Tool for Social and Economic Analysis*, "Comparative Studies in Society and History", Vol. 8, No. 4 (July, 1966), pp. 452-463; Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866*, (London: The University of Chicago Press, 1962).

¹⁹⁴ The Centres for Disease Control and Prevention, <https://www.cdc.gov/DiseasesConditions/>

increasing and revelatory tension, move to a crisis of individual and collective character, then drift towards closure.”¹⁹⁵

In Temkin’s definition of disease and Rosenberg’s definition of epidemic, an abruption of regular social life is common, but the scale of abruption or threat posed by an epidemic makes it dissimilar to other regular diseases. The disruptions resulted from epidemics are so powerful that they have reshaped many social-political, cultural, and economic norms over the past centuries. For example, in Europe, the black death emerged as a significant factor behind the dissolution of medieval feudalism and the rise of the Renaissance. It was so influential that it altered Europeans’ land-power relation and per capita income by eliminating nearly one-third of its people. This large parish of population encouraged rapid technological developments which in turn encouraged the emergence of new urban centers.¹⁹⁶ The impacts of the epidemics were more catastrophic among the natives of America.¹⁹⁷ It perished nearly 80-95 percent of the native American population within the hundred years of European’s arrival.¹⁹⁸

In general, there are two approaches to understand the humanitarian crisis caused by an epidemic. The first group assumes epidemics as an invading and disruptive force that produce multiple political and economic difficulties. The long dominance of this group remained unchallenged until the nineteenth century when an alternative discourse appeared. The second group interpreted epidemics as a function of the social organizations. Rudolf Virchow, the

¹⁹⁵ Charles E. Rosenberg, “What Is an Epidemic? AIDS in Historical Perspective,” *Daedalus*, Vol. 118, No. 2, (Spring, 1989): 2.

¹⁹⁶ Nico Voigtlander And Hans-Joachim Voth, “The Three Horsemen of Riches: Plague, War, and Urbanization in Early Modern Europe,” *The Review of Economic Studies*, Vol. 80, No. 2 (283) (April 2013): pp. 774-811; William M. Bowsky, “The Impact of the Black Death upon Sieneese Government and Society,” *Speculum*, Vol. 39, No. 1 (Jan., 1964), pp. 1-34.

¹⁹⁷ Charles C. Mann, 1491: New Revelations of The Americas Before Columbus, (New York: Alfred A. Knopf, 2005); Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492*, (Westport. Conn: Greenwood Pub. Co., 1972).

¹⁹⁸ Linda Newson, “Pathogens, Places and Peoples,” in *Technology, Disease and Colonial Conquests, Sixteenth to Eighteenth Centuries*, ed. George Raudzens, (Boston: Brill, 2001), pp.167-210.

father of modern pathology, and Salomon Neumann, a prominent German physician, introduced this alternative trend. They interpreted medical science as a part of the social science and thus made people's health a direct social concern. Therefore, a society and a state were accredited responsible for protecting its people against epidemics.¹⁹⁹

The previous chapter has explained the nineteenth century as the century of cholera and its impact on Europe and India. Even as a fringe landscape, Jharkhand had significant importance in the European understanding of cholera epidemics. It shared a border with the endemic areas of Bengal and played the role of a buffer state between Bengal and North India. Therefore, it became essential for the government to control the increasing cholera outbreaks at Jharkhand. This chapter deals with the two important aspects of epidemics as pointed out by Richard Evans. These two important aspects are- the factors behind the Government epidemic control programme and the people's attitude towards the preventive initiatives.²⁰⁰

The Government initiatives functioned in four layers- international, national, regional, and local. While the international and national initiatives were infrequent in Jharkhand, various local and regional initiatives aimed to exterminate Cholera. This study aims to understand the Government initiatives at Jharkhand as an interplay between the national, regional, and local factors. The motive is to understand the government initiatives and native reactions through the union of general and unique factors in the context of Jharkhand.

On the other hand, the epidemics provide a unique opportunity to study the structural relationship of social components, cross-cultural values, and social responses. A severe epidemic is sure to invoke some reactions from all the social groups of society. These responses may vary from class to class and from community to community regarding their local aspects.

¹⁹⁹ George Rosen, "Approaches to a Concept of Social Medicine: A Historical Survey", *Milbank Memorial Fund Quarterly*, Vol. 26, No. 1, (Jan 1948): 7-8.

²⁰⁰ Richard J. Evans, "Epidemics and Revolutions: Cholera in Nineteenth-Century Europe", *Past & Present*, No. 120 (Aug., 1988):127.

Considering the Indian reactions, which developed in an ‘exceptionally raw and accentuated form,’²⁰¹ it differed from the European responses. The difference resulted from social values and class composition unique to India. Europe internalized itself with growing secularism and scientific progress in the 1860s. The rise of the germ theory, standardization of drugs, and codification of medical practices from the 1860s onwards created a great divergence between India and Europe.²⁰² Unlike India, the ‘moralistic and theological explanations’ became marginal in the health-related discourses in Europe.²⁰³

Before we proceed further to understand the social responses, it is necessary to mention that there was no single ‘Indian response.’ The term ‘Indian response’ only generalize the diverse forms of native reactions. It tends to neglect the cooperation between the colonial state and a section of the upper and middle class of the Indian society by overemphasizing the elements of resistance. It also marginalizes the large spectrum of subaltern reactions by subordinating it under the over-arching dominant class responses. Therefore, this chapter tends to “peel apart the onion layers of resistance, accommodation, participation, and appropriation”²⁰⁴ specific to the natives of Jharkhand.

3.1 Sanitary Improvements

The history of sanitary improvements in India started in 1859. The British Government appointed a Royal Commission to investigate the high mortality rate of 69 per 1000 among the British troops. The Royal Commission submitted its report in 1863, and as a result, the Military Cantonment Act came into force in 1864. The colonial authority limited itself to military necessities and commercial profitability until 1900. The primary goal of the sanitary initiatives

²⁰¹ David Arnold, *Colonizing the Body State Medicine and Epidemic Disease in Nineteenth-Century India*, (Berkeley Los Angeles, University of California Press, 1993), 9.

²⁰² Poonam Bala, *Imperialism and Medicine in Bengal: A Socio-historical Perspective*, (New Delhi: Sage Publications, 1991).

²⁰³ Charles E. Rosenberg, *Cholera in Nineteenth-Century Europe: A Tool for Social and Economic Analysis*, “Comparative Studies in Society and History”, Vol. 8, No. 4 (July, 1966): 456.

²⁰⁴ Arnold, op. cit., pp. 10.

was to secure the health of the European force and its citizens. Moreover, the British made elaborate plans only to improve the sanitary conditions of the towns and rarely tried to reach the people living in the interiors or fringe landscapes. This minimalizes the influence of sanitary betterments among the majority of Indians.²⁰⁵

The Government officials and scientists were doubtful of the benefits of quarantine in a country as big as India. Therefore, the sanitary improvement plans were one of the few effective ways to resist Cholera. In Jharkhand, the sanitary improvement plans stumbled from the very beginning due to the policy of decentralization. The financial burden was left mainly to the ill-prepared municipalities and district boards. These local bodies had very acute financial aid and limited political influence, leaving them hardly with any operative authority. It resulted in slowing down of multiple projects over the years.²⁰⁶

However, Hazaribagh received the utmost attention in the division. It had the only European cantonment and was one of the major trading centres in Jharkhand. The government replanned the town to secure its European soldiers even before Hazaribagh became a municipality in 1869. While the Europeans considered Hazaribagh healthy, the troops stationed here suffered heavily due to the proximity to the jungle and congested bazaars. It lacked any sanitary arrangement as a civil and a military station. David B. Smith, the Sanitary Commissioner of Bengal, blamed the bazaars for generating and intensifying the epidemics. Therefore, it became necessary to demolish the bazaars and clear the surrounding jungle tracts to tackle the threat posed to European health.²⁰⁷

²⁰⁵ Radhika Ramasubban, “Imperial Health in British India, 1857–1900”, in *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, ed. Roy Macleod and Milton Lewis, (London: Routledge, 1988), pp. 38–60.

²⁰⁶ Kabita Ray, *History of Public Health: Colonial Bengal 1921–1947* (Calcutta, K.P. Bagchi and Co., 1998), p. 346.

²⁰⁷ David B. Smith, *First Annual Report of the Sanitary Commissioner for Bengal, for 1868*, (Calcutta: Alipore Jail Press, 1869), 306.

In 1865, the Deputy Commissioner of Hazaribagh acquired a large area to the cantonment for sanitary betterment. The government demolished the old bazaars and shifted them to a new spacious area known as Boddam bazaar with broad roads. They also plastered the ditch in the middle of the town to improve the drainage of the cantonment.²⁰⁸ The town authority did not allow any natives to settle down unsystematically within the municipality area. Newly constructed wide streets crossed the town in three rows, and many other minor roads traversed them. The main purpose of the replanning was to ease the town's cleaning during epidemics and provide better ventilation with abundant light and air.

One of the major drawbacks of Hazaribagh was the lack of pure water sources. There were 126 wells in the town, and the people had to depend on their contaminated water. This caused repeated cholera attacks, as described in the second chapter. So, the Government erected a large tank at the cost of 3912 rupees in 1875. The town authority preserved two tanks for drinking purposes and posted a police constable near the tanks to assure its purity.²⁰⁹ Further, the Sanitary Commissioner in 1879 planned a new set of recommendations. It proposed to stop taking earth from the drains, to levy a service fee from the local population to employ *methars*, to burn the clothes of the people dying of Cholera rather than being taken away by the *Doms*, etc.²¹⁰ The initiatives taken for better sanitation improved the overall health of the town but it did little to prevent the severity of Cholera. Cholera originated from multiple factors, and ill-sanitary conditions were only one of them. Therefore, the Sanitary improvements alone failed to resist the progress of Cholera as expected by the Europeans. It benefited only to a minimum extent.

²⁰⁸ E. Lister, Bihar and Orissa District Gazetteers: Hazaribagh, Superintendent, (Patna: Superintendent, Government Printing, Bihar and Orissa, 1917), 95-96.

²⁰⁹ John Martin Coates, Tenth Annual Report of the Sanitary Commissioner for Bengal, for the year 1877, (Calcutta: The Bengal Secretariat Press, 1878), lxx-lxxi.

²¹⁰ John Martin Coates, Twelfth Annual Report of the Sanitary Commissioner for Bengal, year 1879, (Calcutta: The Bengal Secretariat Press, 1880), l.

The demolition of insanitary congested bazaars continued in other towns too. In 1870, the Government removed the insanitary and crowded Chadri bazaar from the center of the European station in Ranchi. Ranchi was a town of growing importance in Jharkhand since 1865. Later, it became the capital of the province. The town authority also redesigned the epidemic-prone eastern quarters of the Ranchi jail and made a new broad road for better ventilation and cleanliness. These areas were previously affected by the epidemic of 1869.²¹¹

Deoghar was one of the major epicentres of Cholera in Jharkhand. The pilgrim season here received as much as 2,00,000-3,00,000 pilgrims from all parts of the country, and the government feared this floating population as a possible carrier of the cholera epidemic. In addition to the floating population, Deoghar in the 1870s had congested town structures followed by a poor ventilation system. The roads were very straight and bounded by pucca shops. However, Deoghar had a very efficient natural drainage in the usual years due to its high altitude, and the wells provided good drinking water.

In order to administer better, the government established Deoghar Municipality in 1876. The municipality undertook several projects to improve the sanitary conditions of the town. Deoghar had a very efficient natural drainage due to its high altitude, and the wells provided good drinking water in the usual years. But during an epidemic year, the same wells became the primary source of contamination. Hence, the government suggested installing wooden frames and masonry to prevent the surface water from draining into the wells. They also preserved the water tank named Jalsor for drinking purposes. Similar to Hazaribagh, a police sentry was used to guard the tank.

The lodging-houses with numerous pilgrims were another primary source of Cholera. Most of them were narrowly constructed and had little concern for sanitary betterments. Dr. Lethbridge,

²¹¹ David B. Smith, Report of the Sanitary Commissioner for Bengal, For the year 1870-71, (Calcutta: Bengal Secretariat Press, 1872), 13.

Civil Surgeon of Deoghar, proposed the lodging-house owners to clean the wells once a year and extend a pucca bathing platform of 10 feet around the well's mouth. This measure, he believed, would prevent the excreta of cholera patients from draining into the wells.²¹² The government made new lodging houses in the vicinity of the temples. These lodging houses provided sixteen superficial feet to individuals and accommodated nearly 50,000 pilgrims in the high season. The rest camped in the open.²¹³ Apart from the Government, native princes also came forward to improve the sanitary environment of the pilgrimage. The Maharaja of Darbhanga donated 13000 rupees for the improvement of drainage and water supply to battle Cholera in 1890.²¹⁴

Purulia, in Manbhum, was one of the most important coolies deport centres in Bengal. It rose to further prominence with the opening of Bengal-Nagpur Railway in 1890s. This town also witnessed several Cholera outbreaks. As a result, the government took initiatives to reconstruct the town from 1868 onwards. They established a town committee in the year 1868. It divided the whole of town into five circles for better sanitary administration. Besides the town committee, the Sanitary Commissioner proposed a vivid plan to improve the drainage and the roads. Moreover, he asked for frequent cleaning of the towns using six carts equipped with double sweepers. He also suggested regular supervision of the sweepers as they tended to neglect their job.²¹⁵ A new market was set up at the cost of 169 rupees in 1869, and the erstwhile congested bazaars came under the scrutiny of the government.²¹⁶ Later, the town authority in Purulia constructed a 60 feet pucca well to ensure the pure water supply.²¹⁷

²¹² John Martin Coates, Tenth Annual Report of the Sanitary Commissioner for Bengal, for the year 1877, (Calcutta: The Bengal Secretariat Press, 1878), lxxii.

²¹³ W.H. Gregg, Twenty-Fourth Annual Report of the Sanitary Commissioner for Bengal, year 1891, (Calcutta: The Bengal Secretariat Press, 1892), xcix.

²¹⁴ Ibid., pp. ccx.

²¹⁵ Smith, op. cit., pp. 287.

²¹⁶ John Martin Coates, op. cit., pp. 92.

²¹⁷ Robert Lidderdale, Thirteenth Annual Report of the Sanitary Commissioner for Bengal, year 1880, (Calcutta: The Bengal Secretariat Press, 1881), 101-102.

Apart from the government, the prominent natives like Babu Ganga Nanda Mukherjee, Vice Chairman of the municipality, and Babu Jagatbandhu Rai, Honorary Magistrate, took a keen interest in improving the sanitary situation of the town. They discussed the plans of improvement regarding the disposal of night-soil, public, and private latrines and drainage with the Commissioner of Chota Nagpur in 1878. When Cholera appeared at the native state of Saraikela in the south of Jharkhand, the local Raja too repaired the drains, streets, and lanes. He also ordered to clean many houses thoroughly to battle cholera.²¹⁸

Although the sanitary measures were becoming increasingly prominent in the major towns of Jharkhand, it rarely dealt the problem of sanitation in villages. The villages had most of the population but the Government hardly cared about them. The Army Sanitary Commissioner observed that “it is hard to believe... peasants in remote villages, ever felt the movement of the ‘Sanitary wave’. Certain it is that sanitary work is pretty much where it was before.”²¹⁹ The ill-effects of this negligence and limitation became more apparent with the great epidemic of 1897. To subdue this challenge, the Government-General issued some instructions to the civil and medical officers in 1897. He ordered to inquire about the Epidemic’s nature and print the preventive measures in vernacular. The government aimed to improve the village's sanitation by providing vernacular books to the grassroots reporting agencies like Chaukidars. Following it, the local Government distributed a book named ‘Village sanitary inspection book’ among the literate residents such as headmen or accountants to enlist the details of happenings. This project received admiration from Florence Nightingale. In a letter to the Governor-General of

²¹⁸ Coates, op. cit., pp.92.

²¹⁹ Proceedings, Government of Bengal, Municipal Department, Medical Branch, March 1897, Nos. 1-2, File S 1R/2 1.

India, she mentioned it as “a most admirable plan for advancing the sanitary causes, and, as a stimulus to the people, most fruitful of future good.”²²⁰

The failure of sanitary policies in the villages of Jharkhand owed to multiple factors. One being the vast unfamiliarity of sanitary improvements among the villagers. Even those who knew, they confronted the troublesome and the expensive innovations. Consequently, a larger section of the native society denounced them and resisted the sanitary interventions. In 1876, the natives opposed the Government initiatives of filling up the contaminated tanks in many parts of Jharkhand.²²¹ During the great cholera of 1897, the Sanitary Commissioner of Bengal, H.J. Dyson was astonished that the natives were more interested in appeasing the offended deity instead of following sanitary precautions.²²² Previously, the Sanitary Commissioner with the Government of Bengal in 1895 blamed the natives who according to him “prefer to live and die as their forefathers lived and died- to be left alone.”²²³

Although the natives opposed the government interventions, the opposition was not the only essence of their reaction. There were instances of natives demanding sanitary improvements but being refused by the government. For example, when the Lieutenant-Governor of Bengal visited Rajmahal in 1884, the natives presented a petition to reclaim the marshland near the town. The marshland resulted from the embankment created by the East India Railway Company, which blocked the natural flow of the two channels- Pukkipul and Nagarpul. It resulted in the deterioration of the local climate, followed by more frequent malaria and cholera outbreaks. The local petitioners requested the Lieutenant-Governor to clear the marshland and

²²⁰ Proceedings, Government of Bengal, Municipal Department, Medical Branch, May, 1897, Nos- 1-2, File S 2-S/2 1.

²²¹ Coates, op. cit., pp. 19.

²²² H.J. Dyson, Thirtieth Annual Report of the Sanitary Commissioner for Bengal, year 1897, (Calcutta: The Bengal Secretariat Press, 1898)

²²³ Proceedings, Government of Bengal, Municipal Department, Medical Branch, March 1897, Nos. 1-2, File S 1R/21.

ask the East India Railway Company to build two bridges to remove the blockage. The officials estimated the cost of reclamation to be 5076 rupees. However, the Lieutenant-Governor refused to sanction this big amount and passed the responsibility to local zamindars. It was the local zamindars who were to be benefited directly from the reclamation by increasing their agricultural profit.²²⁴

On the other hand, the government had limitations of funds²²⁵ and inadequate agencies, as mentioned in the several writings of the colonial administrators. They also lacked any law to entitle Zamindars to carry out sanitary works as the official head of the villages. Hence, the sanitary department was helpless against the ‘growing evil’ of insanitation in the villages. It resulted in the discontinuation of the improvement projects once the epidemic disappeared. Whenever an epidemic cholera broke out in Santhal Pargana, the district officials had to limit themselves in distributing medicine and other nominal means.²²⁶ The Government did not plan any long-term initiatives and always tried to secure the immediate necessities. As a consequence of these causes, the government failed to curb the frequent cholera outbreaks.

Additionally, the Government put the task of supervision on the overloaded vaccination department instead of employing a permanent agency to look after the sanitary initiatives. The vaccination officers had to inquire about the hygienic conditions of the places they travelled and record the local prejudices affecting the health of the natives. The inquiry included a set of topographical questions, such as the situation of a particular place, the character of the soil, population, roads, water supply, disposal of the dead, forest or jungle lands surrounding an area, etc. The purpose of creating such a vast grassroots knowledge base was to trace the

²²⁴ Proceedings, Government of Bengal, Municipal Department, Sanitation Branch, July 1884, Nos. 55-61, page-11-13.

²²⁵ Martin Coates, Eleventh Annual Report of the Sanitary Commissioner for Bengal, Year 1878, (Calcutta: The Bengal Secretariat Press, 1879), 31.

²²⁶ R. Carstairs, The Little World of an Indian District Officer, (London: Macmillan and Co., Limited, 1912), 290.

relation of epidemics with local factors through the encoded history, duration and distribution.²²⁷ Even though, the Sanitary Commissioners blamed their ‘ignorant lazy’ subordinates for not taking any action against the simple breaches to the sanitary measures, John Martin Coates, the Sanitary Commissioner of Bengal in 1879, mentioned that the subordinate officers had little power left to them. Moreover, they were the first to suffer in case of any local opposition.²²⁸

The reluctance of the Government to involve itself in the sanitary works became apparent after the devastating Cholera of 1897 again. The Commissioner of Chota Nagpur made a few recommendations, including a course of hygiene for a supervising agency, the requirement of the sanitary staff to learn a few medical practices, and the appointment of sanitary committees in District boards and municipalities. It also ordered the ill-founded District Boards to appoint a qualified supervising agency and a Sanitary Inspector for the respective local boards. As usual, the government escaped any financial responsibilities and thus leaving the District Boards to allot the funds.²²⁹

Enclavism was an essential feature of the colonial medical initiatives in India.²³⁰ The colonial officers could not get over their enclavist partialities, and therefore, aborted the sanitary initiatives in some rare instances. In 1897, the government proposed to employ a Civil surgeon in every interior district on the sanitary inspection duty. But in the European psychic, it posed a significant threat to their health and others living in the civil stations, hospitals, and Jails. The Commissioner of Bhagalpur opposed this proposal as “not be safe or fair to the European

²²⁷ Proceedings, Government of Bengal, Municipal Department, Sanitation Branch, January, 1883, Nos. 1-3, File 2.

²²⁸ Coates, *op. cit.*, pp. 69.

²²⁹ Proceedings, Government of Bengal, Municipal Department, Medical Branch, March, 1897, Nos. 29, File- S 1-S/1 15.

²³⁰ Radhika Ramasubban, “Imperial Health in British India, 1857–1900”, in *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, ed. Roy Macleod and Milton Lewis, (London: Routledge, 1988), pp. 38–60.

residents who require medical aid and cannot get it elsewhere.”²³¹ He also questioned the rationality behind employing Sanitary Officers at the expense of District and Local Boards. Such internal contrast and an extreme reluctance of the government to involve directly in sanitary interventions hindered any significant sanitary improvement in Jharkhand.

Conclusively, the fear of native reactions, lack of fundings, discontinuity of sanitary initiations, and internal contrast of the officialdom together with enclavist partialities made the government extremely reluctant to be involved directly in sanitary betterments. The government's priorities were only to secure major trading centres and enclaves, such as Hazaribagh, Ranchi, and Purulia; pilgrim sites such as Deoghar. They rarely intervened for the welfare of the larger section of the people living in the villages. Rather, they covered their incompetency upon the ‘ignorance’ and ‘apathy’ of the natives.

3.2 Vaccination

Unlike cholera, small pox as a disease was resistible through preventive medicine like vaccination. It was one of the most controversial medical initiatives of the colonial government in India. By the end of the eighteenth century, it became an integral part of the European enlightenment ideas of humanitarianism and progress as it reduced depopulation and, therefore, secured the lives of the sailors, soldiers, and economic prosperity of Europe.²³² In India too, the colonial government aimed to utilize it as a part of their “humane and benevolent,” “an additional mark of fostering care of the British Government.”²³³ The authority was pretty sure of its success in India as the Governor of Bombay in 1803 reported to have achieved the

²³¹ Proceedings, Government of Bengal, Municipal Department, Medical Branch, March, 1897, Nos.14, File S 1S/1 5, p. 123.

²³² Andrea Rusnock, “Catching Cowpox: The Early Spread of Smallpox Vaccination, 1798–1810,” *Bulletin of the History of Medicine*, Vol. 83, No. 1, (Spring 2009): 22.

²³³ Arnold, op. cit., pp. 136.

“prestige” and “good will from the people” because of vaccination.²³⁴ However, the field of vaccination was not uncontested in India. The inoculators were successfully practicing native inoculation for centuries. Therefore, it became necessary for the colonial authority to counter this pre-existing practice on the scientific rationale, morale, and health-related grounds. They sought to replace inoculation through a standard model of consent and coercion. This dialectical interplay between consent and coercion contributed to its heterogeneity that varies from region to region. In this context of heterogeneity, Jharkhand exemplified one of India's most complex vaccination models.

The first vaccination in India dates to 1802. However, until the 1850s, it showed limited progress due to many practical difficulties. Dr. Shoolbred, the Superintendent General of Vaccine Inoculation, published the first vaccination report of India in 1805. The report listed three major hindrances—the multiple outbreaks of small pox over an extensive area in a high temperature, a widespread non-cooperation of the natives, and the hostility of native inoculators resulting in the slow progress of vaccination.²³⁵ Decades later, Dr. Stewart in 1844 wrote that the natives lost their confidence in vaccination because of its limited success.²³⁶ Therefore, the progress of vaccination in Bengal province was “unsatisfactory and discouraging.” However, these difficulties of vaccination continued to be more or less the same throughout the century.

The earliest mention of vaccination in Jharkhand is found in the accounts of Rev. Reginald Heber, the Bishop of Calcutta. He came across the Paharia people during his travel through Santhal Pargana in 1824-25. As per Heber's account, the Paharia people used to bring their

²³⁴ John Z. Bowers, “The Odyssey of Smallpox Vaccination,” *Bulletin of the History of Medicine*, Vol. 55, No. 1 (Spring 1981): 24.

²³⁵ Papers on vaccination in India, (Calcutta: W. Palmer Military Orphan Press, 1851), 3.

²³⁶ Duncan Stewart, Report on small-pox in Calcutta, 1833-34 -- 1837-38 -- 1843-44, and vaccination in Bengal, from 1827 to 1844, (Calcutta: Military Orphan Press, 1844), 261.

children from thirty to fifty miles away to get vaccination.²³⁷ This account of Heber seems exaggerated as the later evidence suggest widespread resistance among the Adivasi communities and extreme reluctance of government in promoting vaccination. The Government severely neglected the introduction of proper vaccination in Jharkhand. They rarely appointed vaccinators to operate among a large number of natives. Only a few vaccinators were attached with the major dispensaries of Jharkhand under the supervision of Civil-Surgeons. In 1862, the Inspector-General appointed a few native vaccinators to operate under his supervision. But, the Deputy Auditor and the Accountant-General of Bengal refused to sanction the pay of 8 rupees per month. Such refusals often delayed the appointments and threatened the lives of the natives.²³⁸

The organized vaccination in Jharkhand started around 1868. The Government appointed a Superintendent of Vaccination and twenty vaccinators in the newly created circle of Ranchi at the cost of 10,576 rupees.²³⁹ But, the project stumbled from the very beginning due to the lack of three head vaccinators. The vaccination department advertised the posts but they went vacant because of the scarcity of knowledgeable person in the division. By the end of the year, around 6447 people received vaccination with an alarming success rate of 75.7 percent only.²⁴⁰ This success rate continued to be one of the lowest in the province in the coming decades.

During the 1870s, the lack of able vaccinators became apparent as the operation progressed in newer areas. Additionally, the in-service vaccinators refused to continue their job. They repeatedly complained of the insufficient salary compared to the hazards they encountered in an unknown land. It was also troublesome for the vaccinators to travel quickly in Jharkhand

²³⁷ Rev. Reginald Heber, *Narrative of a Journey Through the Upper Provinces of India; From Calcutta to Bombay, 1824-1825*, (Philadelphia: Carey, Lea & Carey: 1829), 201.

²³⁸ Proceedings, Government of Bengal, General Department, Medical Branch, July 1862, Nos. 17-19, Page 22-23; Proceedings, Government of Bengal, General Department, Medical Branch, April 1863, Nos. 23-31.

²³⁹ Proceedings, Government of Bengal, General Department, Medical Branch, April 1868, Nos 96.

²⁴⁰ Smith, *op. cit.*, pp. 5-6.

when small pox diffused itself in multiple places simultaneously. Jharkhand had an indigent communication system, as a result of which the vaccination department could not function effectively.²⁴¹

Besides the poor communication, the vaccination department faced a challenge because of Jharkhand's substantial diversity. The districts here were so unique in their nature, climate, population, and language that the Commissioner of Chota Nagpur Division, Colonel Dalton, described the four districts of Chota Nagpur division as four different nations. While Hazaribagh and Palamau resembled Bihar and people here generally spoke a jargon Hindi, the Adivasi communities of Jharkhand conversed in their distinct languages. In the south, the Oriya language was predominant as opposed to Bengali in the southeast and east of Jharkhand.²⁴² This diverse population and language posed difficulty for a Deputy Superintendent to initiate a standard vaccination plan in Jharkhand. The Sanitary Commissioner, therefore, asked the Government to sanction a special payment for the Deputy Superintendent without which "any gentleman of a tolerable respectable position" would not hold the position in a place like Jharkhand.²⁴³

The reluctance of the native doctors to be employed as Superintendent in Jharkhand significantly hampered the vaccination operations. In 1870, Beni Madhab Bose, the Deputy Superintendent of Vaccination in Santhal Pargana Circle, asked for a leave from his duty unless the Government increased his salary and allowed him to spend his non-working season at Calcutta Medical College. After the Government denied his proposal, he made another request to be in the medical charge of Rajmahal. According to Bose, he could learn a few things and

²⁴¹ J. Murray, Report on the Vaccination Proceedings under the Government of Bengal for the year ending 31st March 1870, (Calcutta: The Bengal Secretariat Office, 1870), 18.

²⁴² Proceedings, Government of Bengal, General Department, General Branch November 1873, Nos.1-94.

²⁴³ Murray, op. cit., pp. 18.

prepare for his exams at Rajmahal. He absolutely refused to spend his life “roaming among the Santhals and wild beasts of the forest.”²⁴⁴

The Superintendents used to spend their non-working season at the field. The purpose was to establish a better relationship with natives and actively battle against their superstitions. But H.M. Macpherson, the Deputy-Inspector General of Hospitals, Dinapore Circle, supported the cause of Beni Madhab. He wanted to be more adaptive to the local realities and thus requested the government double Beni Madhab’s salary with a leave-in his non-working season. On the other hand, the utility of the non-working season was equally doubtful. Previously, Dr. Hoskins, the Superintendent of Ranchi Circle, reported his department’s failed attempts to form any positive relation with the natives during the non-working season. But these arguments were not enough to convince the Inspector-General of Hospitals, Dinapore circle. The Inspector-General knew the undesirability for the superintendent post even among the officers recruited before Beni Madhab. He opposed any relaxation in the non-working season and held the native Superintendents responsible for their lack of interest beyond the town areas.²⁴⁵

In its attempt to vaccinate natives, the government also dealt with the native inoculators. The rival practice of inoculation already occupied the space for vaccination in India, and the European vaccination faced a hard time against their popularity. But it is important to note that inoculation did not enjoy equal status in all the divisions of Bengal province. It covered only 50 percent of the total population in Bihar and Orissa against 80 percent inoculation in Bengal in the early nineteenth century.²⁴⁶ The rate of inoculation might have been far less than 50 percent in Jharkhand as the inoculators usually operated only once in every four or five years.

²⁴⁴ Proceedings, Government of Bengal, Political Department, Medical branch, March 1870, Nos. 53-55, p. 48.

²⁴⁵ Proceedings, Government of Bengal, Political Department, Medical branch, March 1870, Nos. 53-55, p. 48-49.

²⁴⁶ Jayant Banthia and Tim Dyson, “Smallpox in Nineteenth-Century India”, *Population and Development Review*, Vol. 25, No. 4 (Dec., 1999): 659.

Both ideologically and categorically, inoculation differed from the western vaccination. It embodied a set of rituals that helped the natives to connect with their religious domain. The majority of the natives in Jharkhand regarded small pox and the post-inoculation mild symptoms as the grace of goddess Sitala. The Western practitioners associated with secularism and scientificity failed to comprehend this ritualistic angel of inoculation. Their scientific superiority and rationality behind vaccination didn't help them enough to replace inoculation. While Vaccinators were alien to the causes of the natives, inoculators enjoyed their hereditary rights over particular-operating belts. They had extensive knowledge of their belts, and the natives favoured them for the age-old familiarities. Therefore, it was a rigorous task for the Government to break this alliance and deprive the inoculators of their traditional practice.

The Government, however, attempted to create a free space to hegemonize vaccination through an interplay of negotiation and oppression.²⁴⁷ At first, they prepared a set of arguments to show the inefficiency and the risk of inoculation. Colonel Tickell, a British Army Officer, and linguist blamed the Oriya Brahmin inoculators for diffusing fearful havoc of Small pox among the Hos population of Kolhan in the 1830s.²⁴⁸ Additionally, the investigating commissions helped the authority in criticizing inoculation for its religiosity by comparing it with the superstitious practices of Sati and infanticide. The Small Pox commissioners in 1850 termed the practice of inoculation as a 'murderous trade.' According to them, it was the duty of Government "to save from wilful self-destruction the ignorant and thoughtless millions, whom Providence has committed to its charge and protection," and therefore, recommended for its universal abolition.²⁴⁹ Later, a report of 1868 estimated the mortality rate of inoculation to be 30-50 percent. In Sankehberiah, 35 out of 149 persons died in direct succession of small pox

²⁴⁷ Antonio Gramsci, *Selections from Prison Notebooks*, eds. Quintin Hoare, Geoffrey Nowell-Smith, (London: Lawrence and Wishart, 1971), 170; Arnold, op. cit., pp. 243.

²⁴⁸ Lieut. Tickell, "Memoir on The Hodesum (Improperly Called Kolehah)", *The Journal of The Asiatic Society of Bengal*, Vol. IX, (Calcutta: Bishop's College Press, 1840): 706.

²⁴⁹ Report of the smallpox commissioners, appointed by government, (Calcutta: J.C. Sherriff, Military Orphan Press, 1850), 54, 66.

after their inoculation in March 1869.²⁵⁰ The mortality was categorized into two- Primary and secondary mortality. The primary mortality emerged because of small pox's direction succession after inoculation, whereas the secondary mortality resulted from the diffusion of natural small pox from a primary subject. The colonial authority utilized the havoc created due to secondary mortality as an excuse to criminalize inoculation. The Europeans depicted inoculation as a humanitarian crisis through their successive political, judicial, and moral assaults.

In 1870, J. Murray, the Inspector-General of Hospitals, visited a few villages to experience the effect of inoculation personally. He selected two para or localities in a village, of which one received vaccination and another inoculation. Among the inoculated population, two died and three became disfigured. On the contrary, there was no casualty among the vaccinated population except for mild effects. Murray used this trial to confirm his speculations regarding the unscientificity of inoculation and condemned the natives who "had taken the poison with their own hands... and must abide the result." Experiments like these with predetermined notions accelerated the marginalization and criminalization of the century-old inoculation practice.²⁵¹

While the Europeans were getting increasingly hostile towards inoculation, a section of them argued against the complete abolition of inoculation. Francis Buchanan, the famous European physician, and geographer found inoculation as an almost universal practice during his visit to Rajmahal. He came across thirty inoculators in the district and praised the accuracy and great

²⁵⁰ Murray, op. cit., pp. 1.

²⁵¹ Ibid., 8-9.

success of inoculation in preventing small pox. According to Buchanan, one in every twenty inoculated persons died.²⁵²

A few decades later, Dr. H. Hayes, the Deputy Commissioner of Singbhum advocated the employment of inoculators as vaccinators in later decades. The Government considered his suggestion seriously after he successfully resisted the ravages of the small pox of 1866 by using this method. On the other hand, J. E. Charles, the Superintendent of Vaccination, Ranchi circle, argued against a complete abolition of inoculation. He condemned such attempts as “criminal on the part of the Officers of the Government interfering with it in any way, under any circumstances short of those in which government is prepared to furnish the district with permanent means of protection against small-pox.” Charles feared that the flourishing art of inoculation would become less prominent with regular Government interferences. It could have exposed unprotected population to a higher possibility of small pox.²⁵³

J.B. Murray, too, advocated inoculation before his experiment of two localities in 1870. Murray cited the Report of the Small Pox Commissioners of 1850 to report multiple examples of inoculation that did not diffuse small pox. He even blamed the medical men and Civil Surgeons for their ignorance and limits for interpreting inoculation as superstitious practice. Murray further stated that the inoculation practice followed great precautions, and the hereditary knowledge ensured its accuracy.²⁵⁴ In reality, the religious and social norms confirmed more extensive participation of the village community. Inoculators usually performed their operations only after most of the unprotected people were ready to receive it. The uninoculated population generally isolated themselves within their houses or in some other villages. The

²⁵² Francis Buchanan, *An Account of the District of Bhagalpur in 1810-1811*, (Patna: Patna Law Press, 1939), 205-206.

²⁵³ *Proceedings, Government of Bengal, General Department, General Branch, January 1867*, Nos. 42-44.

²⁵⁴ Murray, *op. cit.*, pp. 6.

religious intimation also ensured the home quarantine strictly. Earlier, Murray also denounced the acquisition of a high death rate in inoculation and found the death of a few in every thousand. These rhetoric's in support of inoculation faded away with time. The Government, especially a group of District Officials in Jharkhand, became impatient with the gradual replacement of inoculation. The Deputy Commissioner of Manbhum strongly advocated the prohibition of inoculation in the municipal circles as the government practiced a greater authority over them. Therefore, he anticipated a greater chance of successful vaccination in municipalities against the remote areas. Ultimately, the Lieutenant Governor of Bengal retreated from his prior stand of not prohibiting inoculation.²⁵⁵ He extended the Act IV. (B.C.) of 1865 (Anti-Inoculation Act of 1865) in the districts of Hazaribagh, Lohardaga, Manbhum, and Singbhum. This act criminalized the practice of inoculation. The Deputy Commissioners and the Police received the right to take action against inoculators and inflict a penalty for opposing vaccination.

Nevertheless, the anti-inoculation act didn't discourage the natives from resisting vaccination. Most of them refused vaccination even under immense official pressure. The resistance continued through multiple confrontations, and often it threatened the lives of the unfamiliar vaccinators. In many villages, the natives refused to offer food or water to the vaccinators and even destroyed the vaccination lymph. On the other hand, the zamindars didn't bother about the anti-inoculation act and continued their old practice of inoculation. The local reporting agencies from the remote areas frequently misinformed the Government regarding the inoculation operations. Ultimately, the criminalization only minimised the inoculation operations up to a certain extent in Jharkhand.

Even though the Government criminalized inoculation and planned to appoint the inoculators as vaccinators, it was inadequate to overcome their difficulties. The criminalization of

²⁵⁵ Proceedings, Government of Bengal, General Department, General Branch, January 1867, Nos. 42-44.

inoculation had created a vacant space for the western vaccination. But the government establishment of vaccination was not big enough to maintain the complete vaccination of even one district. It was challenging for the vaccinators to revisit the vaccinated areas systematically with this small agency, and sometimes it took them more than four years to revisit. This delay hindered the aimed protection.

Additionally, the lack of the Government's financial support created a hindrance as before. Dr. Chandra, the Civil Surgeon of Santhal Pargana, planned a salary hike to boost the morale of the native vaccinators in 1870. But the Commissioner of Bhagalpur and the Government of Bengal rejected his proposal because it would have cost them an extra hundred rupees per month. They even questioned the success of the vaccination agency on better pay.²⁵⁶ Additionally, the authority discontinued the travelling allowance of vaccinators in 1868 to make the situation worse. It became quite impossible for vaccinators to continue their travels with a monthly payment of 8-12 rupees.²⁵⁷ Troubled by their economic insufficiency, the department utilized the native inoculators.

As discussed above, the vaccination department in Jharkhand faced four significant difficulties- the widespread geographical and cultural diversities, shortfall of funding, and the lack of proper Vaccinators and Superintendents and above all the resistances of inoculators and natives. In an attempt to overcome these difficulties, the colonial authority introduced one of the most vibrant vaccination models in Jharkhand. The model was called the 'Nadia model.' As per the model, the government decided to operate vaccination through the inoculators and utilize their familiarity and hereditary rights for Government's advantage. The first trial took place at

²⁵⁶ Proceedings, Government of Bengal, Political Department, Medical branch, April 1870, Nos. 11-12, Page-6.

²⁵⁷ J. Murray, Report on Vaccination Proceeding for the year ending with 31st March, 1869, (Calcutta: Office of Superintendent of Government Printing, 1869), xlx.

Singbhum in 1867. The vaccination department appointed some Brahmin inoculators to serve at the equal rate of vaccinators, and the result was quite satisfactory.²⁵⁸

Prior to 1869, there were pieces of evidence of inoculators working as vaccinators in some scattered instances. Dr. Chandra, Medical Officer of Santhal Pargana, was the first to introduce this cooperative model. He trained inoculators in the art of vaccination and provided them vaccine lymph. The medical officers of Singbhum followed this model and successfully countered the severe small pox of Kera, Korykeyla, and Chakradharpur circle in 1866.²⁵⁹ They additionally appointed two more inoculators at the payment of 10 rupees per month in 1868.²⁶⁰ Dr. Manook, the Civil Surgeon of Singbhum appointed another Brahmin inoculator under his wing. This Brahmin inoculator received a fee of 18 annas per month and successfully vaccinated 610 people in 1868.²⁶¹ The inoculators continued their old practice of receiving payment from customers, and 465 people paid their fees. This lightened the shortage of funds, and encouraged the Government to employ more inoculators in the future.

The employment of inoculators as vaccinators faced contestation within the European officialdom. While most scholars tend to perceive the European officialdom as a single entity, internal contradictions have always been a part of it. Scholars like Sanjoy Bhattacharya, Mark Harrison and Michael Worboys have explained the contradictory nature of the European Government in India as a “Fractured State”- a state that was “an aggregate of administrative levels.”²⁶² The employment of inoculators as vaccinators were no exception.

The Deputy Commissioner and the Civil Surgeon of Singbhum cherished the success of native inoculators as vaccinators. But, A.L. Clay, the Deputy Commissioner of Manbhum, described

²⁵⁸ Proceedings, Government of Bengal, Municipal Department, Medical Branch, Feb 1867, Nos. 74-76.

²⁵⁹ Proceedings, Government of Bengal, General Department, Medical Branch, January 1867, Nos. 42-44.

²⁶⁰ Proceedings, Government of Bengal, General Department, Medical Branch, April 1868, Nos. 93.

²⁶¹ Proceedings, Government of Bengal, Political Department, Medical Branch, June 1869, Nos. 1-2.

²⁶² S. Bhattacharya, M. Harrison & M. Worboys, *Fractured States: Smallpox, Public Health and Vaccination Policy in British India 1800- 1947*, (Hyderabad: Orient Longman, 2005), 11.

the project as a failure.²⁶³ According to Clay, the inoculators found multiple ways to escape the Government restrictions in absence of proper inspecting staffs.

On the other hand, the Commissioner of Chota Nagpur Division, E.T. Dalton, supported this scheme of employing inoculators as “the only method of including the bulk of the people to take vaccination.” He aimed to tackle the scarcity of trained vaccinators and good quality of lymph in the division via inoculators. The employment of inoculators, he believed, would also save the time of superintendents in persuading the natives.²⁶⁴ Rather, Dalton suggested to use the spare time for supervising the inoculators cum vaccinators. But this scheme did not go well with E.J. Hoskins, the Superintendent of Vaccination, Ranchi circle. He pointed out the absence of any Government order and refused to sanction any fund for Dalton’s plan. The superintendent also criticized Dr. Manook, Civil Surgeon of Singbhum, for employing an inoculator and denied any relation of the inoculator with his department. But, the Lieutenant-Governor of Bengal favoured Dalton and approved the appointment of inoculators as vaccinators in 1869.²⁶⁵

At times, the colonial government accepted the limitations of a complete vaccination plan in Jharkhand. So, they followed a diffusionist model similar to the education policies of Macaulay. The government hoped to “confer the benefits of vaccination on a certain very limited number of persons, to show the people by experience what vaccination professes to do, and what it really can accomplish, and, having taught them its value, to induce them to seek it for themselves.”²⁶⁶ Their aim was to expand the vaccination without increasing the expenditure. As a part of the diffusionist model, the vaccination department in Jharkhand

²⁶³ Proceedings, Government of Bengal, General Department, Medical Branch, March 1869, Nos. 71-73.

²⁶⁴ Proceedings, Government of Bengal, Political Department, Medical Branch, Feb 1870, Nos. 18-19.

²⁶⁵ Proceedings, Government of Bengal, Political Department, Medical Branch, June 1869, Nos. 1-2, pp. 1-3.

²⁶⁶ Seventh Annual Report of the Sanitary Commissioner with the Government of India, 1870, (Calcutta: Office of the Superintendent of Government Printing, 1871), 105.

increasingly became dependent on licensed vaccinators. Initially, the licensed vaccinators were allowed to receive a fee of four annas for boys and two annas for girls. But it was improbable for the people in Jharkhand to get a paid vaccination considering their overall economic condition. To make vaccination more approachable, the local authority ordered to decrease the fees to 2 annas per head. In addition, the officials thought that reduced fees would encourage the vaccinators **to** work hard to maintain their income.²⁶⁷

With the Lieutenant-General's approval, the Superintendent of Vaccination had to retreat from his previous stand. He made a vivid plan to assimilate the inoculators into his organization by fulfilling Lieutenant-General's unwillingness to invest any extra fund.²⁶⁸ Inoculators received the permission to continue their operations in the hereditary circles and to collect the customary fees from their beneficiaries. Moreover, to induce the inoculators cum vaccinators in using the European lymph, the penalization was strictly imposed.²⁶⁹

The decision of employing inoculators achieved its purpose up to a great extent. The inoculators often incorporated the western vaccination with the Indian rituals. This incorporation partially neutralized the native opposition in certain areas and gave the western vaccination a better chance of success. The following subsection discusses such incorporation elaborately.

3.3. Native Reactions

The previous sub-section discusses the European government's attempt to extend its hegemony in the native sphere through the duality of consent and coercion. While the elements of coercion may appear as the prepotent expression of the Western medical activity, it had severe

²⁶⁷ J. Campbell Brown, Report on Vaccination in the Province of Bengal, for the year ending 31st March 1872, (Calcutta: The Bengal Secretariat Press, 1872), 31.

²⁶⁸ Proceedings, Government of Bengal, Political Department, Medical Branch, Feb 1870, Nos. 18-19, pp.12.

²⁶⁹ Proceedings, Government of Bengal, Political Department, Medical Branch, Feb 1871, Nos. 31-37.

limitations. One of these limitations was the Government's fear of a political backlash in post-1857 colonial India. They were extremely attentive to minimize any interference in the native medical discourses that could intrude on the religious and cultural beliefs.²⁷⁰ Therefore, it is imperative to understand the native reactions that compelled the Government to overlook the medical community's opposition in employing inoculators. The interpretations of the native reactions are equally important to figure out the "formative influence on the ways in which Western medical ideology and practice were formed and presented in colonial India."²⁷¹

The impact of caste on the vaccination operations in Jharkhand is highly scattered and few, as the Adivasi communities did not practice them. But it is doubtful that people of Hindu villages received an equal vaccination facility irrespective of their caste. It is unlikely that the inoculators paid equal attention to the villagers regardless of their caste. The native inoculators primarily belonged to the lower-class Brahmins. *Malakar*, a lower caste Bengali community, practiced inoculation around the Bengal division, while in Jharkhand, the *Sinduria* or Oriya Brahmins and *Tikait* or Bengali Brahmins were the most prominent. As the Government induced them to practice vaccination, they operated it only among the lower caste children. On the other hand, the higher caste children received inoculation as usual.²⁷² This attitude towards the lower castes was not an exception. In 1870, the colonial authority in Jharkhand employed two vaccinators from the Lohardaga party to suppress the epidemic small pox outbreak at Singbhum. One of them, however, refused to vaccinate the lower caste people claiming his caste purity. Therefore, the vaccination department suspended him.²⁷³

²⁷⁰ Mark Harrison, *Public health in British India: Anglo-Indian preventive medicine 1859-1914*, (New Delhi: Cambridge University Press, 1994), 87-88.

²⁷¹ Arnold, *op. cit.*, pp. 240.

²⁷² Smith, *op. cit.*, pp. 293.

²⁷³ Murray, *op. cit.*, pp. 15.

Vaccination faced extensive opposition in most areas of Jharkhand. In Deoghar, one of the strongholds of Hindu idolatry, the Deputy Superintendent and his vaccination staff failed to succeed during their vaccination operation of 1867. The resistance became more intense with the support of the zamindars. They stealthily invited the inoculators during small pox outbreaks. Most importantly, Zamindars practiced a substantial influence over their territory and frequently encouraged the natives to actively oppose the vaccinators. The opposition of Zamindars became evident during the first vaccination operation in 1869. The natives and the zamindars of Kodarma absolutely refused to supply any food, water, and other essentials to the vaccination party and the superintendent. The villagers also destroyed vesicles and turned off crusts before the inspection. Moreover, the prominent zamindars like the Raja of Ramgarh denied any effectual aid to the vaccinators passing through their territories, leaving the vaccination party on the verge of starvation.²⁷⁴

The natives of Jharkhand disliked the European officers ubiquitously. In most instances, the absence of a European officer to supervise the vaccination operation proved favourable. The non-official natives did their best to discourage the Europeans from visiting their villages frequently. The villagers, during vaccination, often inquired about the presence of a European officer and decided their acceptance accordingly. These observations made the Superintendent of Vaccination, Ranchi circle, realize that his “personal efforts in this way did more harm than good.” In another instance, Ishak Khan, a native superintendent of vaccination, pursued the people of Kharagdiha, Hazaribagh, to receive vaccination in 1869. The operation progressed well initially, but the natives returned once the European officer arrived for supervision. It became impossible to pursue them even with the help of local Zamindar, Munsif, and Inspector

²⁷⁴ Murray, *op. cit.*, pp. xliii.

of Police.²⁷⁵ It is also important to note that the natives repeatedly questioned the relevance of the inspection programmes carried out by the European superintendents. Campbell Brown, the Surgeon-General of Bengal in 1873, mentioned that the natives believed inspection to be unnecessary as they had already allowed the vaccinators to operate. In a few places, natives even refused to take vaccination once the officials initiated an enquiry.²⁷⁶

The native attitude towards Europeans mostly remained the same over the years. One possible reason could be the imposition of native rituals and restrictions on vaccination. Inoculation involved a set of rituals and regulations that prohibited strangers and outsiders from entering a village after its operation. Natives possibly resisted the European presence as a breach of the ritualistic restrictions of a post-vaccination village. J. Murray, the Superintendent of vaccination, mentioned a second possible reason behind the dislike towards Europeans. According to him, the natives attempted to hide the inoculation operations from the European officers to escape from their punishments.²⁷⁷

Among the natives, the Adivasi communities offered maximum resistance against the vaccination. They repeatedly practiced witch-hunting because their medical discourse regarded small pox as a powerful curse diffused by some witches.²⁷⁸ Further, they believed that the inoculators alone possessed the power to cure the afflictions, if not witch-hunting. So, the attempt of the colonial authority to eliminate the Adivasi beliefs and induce them to the vaccination was met with utmost fear. At the very first sight of vaccinators, they retreated to the jungle. As a result, the vaccination operations failed miserably among them. The Deputy-Inspector General of Hospitals, the Dinapore circle, remarked the status of the vaccination

²⁷⁵ Ibid., pp. xlv.

²⁷⁶ Campbell Brown, op. cit., pp. 37.

²⁷⁷ J. Murray, Report on the Vaccination Proceedings under the Government of Bengal for the year ending 31st March 1870, (Calcutta: The Bengal Secretariat Office, 1870), 8.

²⁷⁸ Proceedings, Government of Bengal, General Department, Medical Branch, April 1869. Nos. 9-10.

operation as ‘almost an entire failure’ among the Santhals of Santhal Pargana in 1870. He suggested the Government employ a liberal agency, such as inoculators, to popularize vaccination among Santhals.²⁷⁹

This fear of vaccination was not unique among the Adivasis of Jharkhand, and the other communities were equally suspicious of the Government initiatives. In one instance, the Sub-Assistant Surgeon of Lohardaga district attempted to vaccinate the famine-stricken natives working in the relief camp of Daltonganj in 1869. As the news broke out, around 300-400 labours immediately ran away from the relief camp out of fear. The enraged Deputy Commissioner of Ranchi ordered the Sub-Assistant Surgeon to explain his “injudicious and insane” action and criticized him for failing to foresee the results.²⁸⁰ The labours were so desperate that they decided to leave for the tea gardens of Assam rather than taking the vaccination.

In the south of Jharkhand, the Hos community in Singbhum offered greater resistance than any other Adivasi community of Jharkhand. Their resistance halted vaccination's progress despite the continuous twelve years of efforts by the Ranchi circle of Vaccination. The Oraons of Balumath, Lohardaga district, also offered considerable resistance to vaccination. They fled to the jungle as the vaccinators arrived. They even threatened and assaulted vaccinators passing through their villages.²⁸¹ The vaccination party under Mohamed Ishak came under attack at the eastern side of Ranchi.

In the 1890s, the Compulsory Vaccination Act or the Bengal Vaccination Act V (B.C) of 1880 became a powerful tool of the government to overrule the native objections to vaccination.

²⁷⁹ Proceedings, Government of Bengal, Political Department, Medical Branch, March 1870, Nos. 53-55, p. 48-49.

²⁸⁰ Proceedings, Government of Bengal, General Department, Medical Branch, February 1869, Nos. 25, page 35-36.

²⁸¹ Campbell Brown, op. cit., pp. 60.

While the government rarely tried to extend this act to the rural areas of Jharkhand, the town areas became the principal target of it. In 1881, the act was first extended to the important town of Hazaribagh.²⁸² Later in 1892, the government proposed to include other towns like Chaibasa²⁸³ and Jhalda under its operation. Although the authority successfully extended the act to Chaibasa and Hazaribagh, the attempt of the Lieutenant-Governor of Bengal to extend it to Jhalda Municipality, Manbhum met oppositions. The business community of Marwaris refused vaccination, and two of them rushed to the government to offer their formal opposition according to the provisions of the Bengal Vaccination Act.²⁸⁴ This opposition was one of the very few examples of the native society utilizing the scope of objection within the legal framework. However, the Government overruled their objection and introduced the Vaccination Act at Jhalda in 1892.

In consolidating the native reaction against the vaccination in Jharkhand, rumour too played a vital role. As the vaccination operation started at Mirzaganj, Hazaribagh, the locals accused the vaccinators of abducting a child. Following this rumour, a violent mob captured a vaccinator and was about to lynch him. But the abducted child failed to recognize him, and therefore the mob acquitted him. This was not the only instance of rumours provoking the natives of Jharkhand. For years, they believed that the vaccination was an attempt to secure the drops of blood from the natives to perform magical rituals, making bridges and new railways over the Barakar river.²⁸⁵ Rumours around blood extraction became notoriously popular among the natives. The Adivasis of Santhal Pargana assumed that the extracted blood would be given to the ships proceeding to England. The sailors, in case of any shipwreck, would regain their lives

²⁸² Proceedings, Government of Bengal, Municipal Department, Sanitation Branch, January 1883, Nos. 2-5, File 4.

²⁸³ Proceedings, Government of Bengal, Municipal Department, Sanitation Branch, Nos. 3-4, Nov 1892, File S 2A/5, Page 142.

²⁸⁴ Proceedings, Government of Bengal, Municipal Department, Sanitation Branch, July 1892, Nos. 2-7, page-51-52.

²⁸⁵ Murray, *op. cit.*, pp. xlv.

in return for the deaths of an equal number of native children by using the extracted blood.²⁸⁶ Out of all prevailing rumours in the native psyche, most were associated with a revised taxation system. The Adivasis feared that the government would increase the revenue once they marked them through vaccination. A few natives even believed that the government wanted to mark them for police tracking in the guise of vaccination.

Although the rumours appear as gross superstitions, they didn't exist independently. It resulted from the reappropriations of certain events happening around the natives. For example, a group of Santhals in Santhal Pargana resisted vaccination in the context of the Anglo-Afghan war. Rumours spread that the government would deploy them to the battlefield after marking them through vaccination. Even the Adivasi communities' fear of revised taxation was an outcome of the successive Government attempts to reclaim the forest tracts of Jharkhand for agriculture. These rumours exemplify Adivasi consciousness and knowledge regarding the events of their own and of distant land. It also contradicts the colonial acquisitions of native ignorance regarding the events around them. Therefore, the vaccination became something more significant than a medical initiative in the popular psychic.

Under such unfavourable conditions and intense popular resistance, the colonial government attempted vaccination through multiple negotiations. While the negotiation primarily involved the inoculators, the government also tried to influence the Zamindars and other natives closer to the colonial expositors. They aimed to use leading natives as a positive reinforcement in popularizing vaccination. In 1883, the Deputy Commissioners in Jharkhand commanded the vaccinators to use 'every reasonable endeavour' to pursue the village headmen, Municipal Committees, Zamindars, and others in an influential position to popularise vaccination.²⁸⁷ As

²⁸⁶ Report on Vaccination Proceedings Throughout the Government of Bengal, (Calcutta: Office of Superintendent of Government Printing, 1868), 2.

²⁸⁷ Proceedings, Government of Bengal, Municipal Department, Sanitation Branch, January 1883, Nos. 1-3, File 2.

a result of the government initiatives, a section of the emerging middle class and aristocrats favoured the Western medical initiatives. Both vaccination and anti-cholera measures became increasingly famous among them.

At first, Mr. Garbett, the Deputy Commissioner of Singbhum, set an example by receiving a public vaccination to encourage the natives. Later, several Zamindars joined the vaccination drive along with their families. The Zamindar of Dhanwar facilitated great assistance in his area and at Kharagdiha during the first vaccination operation of 1869. Besides him, the vaccination reports repeatedly mentioned Daulat Singh, the Zamindari agent of Jaynagar, and Golam Rasool, the Zamindar of Chitarpur, for their constant assistance to vaccination. As a member of the most reputed royal family in the division, the widow of the late Maharaja of Chota Nagpur also received vaccination to encourage her people.²⁸⁸ But in the south of Jharkhand, the Zamindar of Asoora continued to be a major obstacle and disrupted the operations around Chaibasa.²⁸⁹

In 1867, David B. Smith, the Sanitary Commissioner with the Government of Bengal, mentioned one of the earliest examples of a village headman promoting vaccination. This headman, however, agreed to promote the vaccination once the government employed Brahmin vaccinators.²⁹⁰ A few years later, a prominent native figure, Rai Jadunath Mukherjee, the Government pleader, came forward to render his assistance to encourage vaccination among the natives of Jharkhand in 1877.²⁹¹ While the isolated individual efforts were insufficient to make people accept vaccination, such examples became increasingly common in the twentieth century. On the other hand, the Vaccination Superintendent denied any predetermined

²⁸⁸ Brown, op. cit., pp. 17.

²⁸⁹ A.J. Payne, Report on Vaccination in the province of Bengal, for 1879-80, (Calcutta: The Bengal Secretariat Press, 1880), 16.

²⁹⁰ Smith, op. cit., pp. 304.

²⁹¹ Coates, op. cit., pp. lxxi.

opposition of vaccination among the people of Santhal Pargana. Instead, he blamed the ill success of vaccination for its unpopularity.

Apart from the Zamindars, the two princely states of Chota Nagpur rendered their assistance to vaccination. In 1870, severe small pox broke out at Jashpur and Sirguja. As the inoculators failed to subdue its progress, the Rajas asked the British for assistance. The Commissioner of Chota Nagpur, E.T. Dalton, requested the Superintendent of the Ranchi Circle of Vaccination to extend his operations to Jashpur and Sirguja. Still, the Superintendent dropped the proposal due to the lack of trained vaccinators and the unfavourable season. But he promised to include these states into his circle of vaccination with the condition that the native rulers had to pay the fees of the native superintendent and the vaccinators should receive their payment from the people directly. Despite the government's effort to promote vaccination as a good omen, their usual limitation hindered its progress in the new areas.²⁹² In addition to the government and few native initiatives, the agencies such as railway staff played a limited but important role in popularizing vaccination. In Karharbari, Hazaribagh, the railway staff, especially the European resident Engineer of the newly established chord line, prepared a suitable ground for successful vaccination. The vaccination operation was highly successful here under the Native Superintendent Ishak Khan in 1869.²⁹³

Apart from eliminating the epidemic diseases, a primary goal of the government was to project the superiority of the western medical sciences against the Indian practices associated with the religious rituals. However, the reality turned different as the western medicine functioned more liberally at the ground level. It diverted from its aim of eliminating customs, caste, or superstitions and very often ended up in negotiating with Indian practices and rituals.²⁹⁴ The

²⁹² J. Murray, Report on the Vaccination Proceedings under the Government of Bengal for the year ending 31st March 1870, (Calcutta: The Bengal Secretariat Office, 1870), 16.

²⁹³ Murray, op. cit., pp. xlv.

²⁹⁴ Arnold, op. cit., pp. 294.

main motive behind local adaptability was to ensure more extensive mass participation. As a result, the government appointed the Brahmin and Adivasi inoculators to influence the natives. The natives, particularly the subaltern communities, resisted the government operations fiercely and accepted Western medical initiatives only on their terms. They followed the rituals of fasting and puja for 21 days after the vaccine operations in a few places.²⁹⁵ In another instance, the Native Superintendent of Vaccination, Ishak Khan, during his journey through the Lohardaga district, found that the natives refused to receive vaccination unless the vaccinators agreed to operate on their lucky day. As a result, the vaccinators had to move quickly to catch up with the different lucky days in different villages.²⁹⁶

This cooperation of western vaccination with Indian tradition was more extensive in areas like Purulia. Before vaccination, parents of the young children used to offer rice, oil, ghee, cloth, and flowers to the shrine of goddess Sitala. The vaccinators received these offerings after the operation.²⁹⁷ The examples of such syntheses are few but not absent. Most of the scholars of medical history tend to interpret the native reactions through the stereotypical themes of dominance-resistance and cultural diffusion. But it is equally crucial to focus on the terms through which the native communities accepted the alien programs and reappropriated them within their usual way of life.

²⁹⁵ Proceedings, Government of Bengal, Municipal Department, Medical Branch, Feb 1867, Nos. 74-76.

²⁹⁶ Murray, *op. cit.*, pp. xliii-iv.

²⁹⁷ Smith, *op. cit.*, pp. 294.

Conclusion

There is a widespread perception that Jharkhand remained isolated from the mainstream of Indian history, and this isolation helped the Adivasi communities to grow independently. The purpose of including a short history of Jharkhand since the British occupation and, more importantly, the health-related folklores is to shatter such stereotypes and explore the continuous exchanges among the societies. Isolation is important in the context of disease and as similar studies on the indigenous people of the American continent describe the distressing impact of diseases on an isolated community.²⁹⁸ Epidemics cause depopulation of Native Americans in the continent. However, in Jharkhand, the native communities have constantly been in contact with other societies, and therefore, the epidemics were infrequent but not absent from their lives. The description of the Oraons fleeing from their ancestral seat of power Rohtasgarh Fort as a result of small-pox epidemic outbreak. This is not only explains their historical experience of epidemics, but more importantly, it is contrary to the colonial and nationalist perceptions of their immobility as a social and political unit. Therefore, uncovering the past of the Adivasi communities through the perspective of diseases is essential. It counters the existing stereotypes and relocates them in a proper historical context.

In the nineteenth century, Jharkhand did not initially have much economic significance to the British. It constantly collected the lowest revenues from this region, and furthermore the opportunities for commercial activities were limited due to its' the hilly landscape and dense jungles. As a result, the colonial authority had minimal interest on this region, and their interference was also less frequent. However, this apathy changed since the 1860s because of the repeated epidemic outbreaks. Jharkhand became a buffer state between the endemic and

²⁹⁸ Charles C. Mann, 1491: New Revelations of The Americas Before Columbus, (New York: Alfred A. Knopf, 2005); Alfred W. Crosby, The Columbian Exchange: Biological and Cultural Consequences of 1492, (Westport. Conn: Greenwood Pub. Co., 1972).

epidemic regions. The imagined geography, produced by a series of colonial researches, played a vital role in consolidating the importance of Jharkhand in the European understanding of disease geography. The Cholera Enquiry Committees and sanitary commissioners assumed that cholera travelled to North and Central India only through Jharkhand. They also made it a part of the minacious northern epidemic highroad that finally spread cholera to Europe during early 19th century. Additionally, the proximity of Jharkhand to the endemic region of Bengal and the placement of the European Army regiment at Hazaribagh compelled the British to take the outbreaks more seriously. Thus, Jharkhand had a particular space in the colonial imaginations, and it occupied as crucial from both the national and international discourses of cholera. During a period when Jharkhand had limited importance to the colonial authority, the epidemics compelled the government to become proactive to resist the yearly cholera outbreaks in Deoghar and, therefore, to take an active interest in the events of Jharkhand.

Apart from the imaginary disease geography, the colonial enclavist mentality also found a profound expression in Jharkhand. As the colonial enclaves played a significant role in determining the course of medical initiatives in British India, it appeared crucial for the British to secure the European regiment stationed at Hazaribagh to continue their authority over ‘unruly’ tracts of Jharkhand. Consequently, the district of Hazaribagh was the first to receive medical benefits such as vaccination and sanitation in the 1860s. On the other hand, the proposed sanatorium at Parasnath hills and the government’s decision to build European quarters at Hazaribagh represent a much more complex understanding of the colonial medical environmentalism that attempted to create geographical spaces suitable for the European soldiers. However, this medical environmentalism appeared as a contested realm, and it trapped the government in decades-long contradiction over the healthiness of Jharkhand.

Since the early times, the Europeans in Jharkhand encountered a hostile environment. The unhealthy climate of Jharkhand emerged as one of the prime reasons behind the colonial

authority's decision to not involve directly in Jharkhand during the initial years. However, the involvement when it became necessary, and then they create suitable spaces to live these areas to protect European health from health threats posed by epidemics. The government introduced vaccination drives, they cleared the jungles around the cantonments, jails, and other sites of importance. On the other hand, communication became more efficient by the end of the 1890s as the Bengal-Nagpur Railway covered a large area of the Chota Nagpur division. The local and the provincial authority too initiated to construct the road networks which led to connecting the major towns of the division. Gradually, the perceptions of the unhealthy climate faded away. Later in the twentieth century, numerous middle-class Bengalis started migrating to the places like Giridih, Deoghar, Madhupur, and Ghatsila in their persuasion of better health.

The colonial state attempts preventive measures against epidemics formed a significant aspect of the western medical interventions in the colonial Jharkhand. As a part of the imaginary disease geography and the northern epidemic highway, Jharkhand had the high potentiality to diffuse cholera in the north and central India and even up to Europe. Therefore, medical and sanitary interventions had become increasingly common in Jharkhand since the 1860s. However, the government's inconsistency and their anti-epidemic measures had a little significant impact resulted Jharkhand met the deadliest epidemic in the end of the nineteenth century. The colonial state propagated western medical science, and health and sanitary measures as enlightening the natives and offering the benefits of it, however, often retreated from their programmes whenever it involved any financial burden. This extreme hesitancy to fund the health and sanitary programmes were the main hindrance to medical enhancements in colonial Jharkhand. Instead, the government opted to blame the natives. Virtually all the colonial government reports showed the native ignorance and apathy as impediment to their health-improvement. But the colonial state made no attempts to understand the mentality of the natives despite the repeated pleas of the local officers for the fund. The Lieutenant-Governor

overlooked the request of the local residents in the Rajmahal town and refused to sanction any fund to improve the sanitary condition of Rajmahal. He didn't even order the East Indian Railway to undo their wrongs. Such apathy of the government might have resulted from its economic profitability. The reason why the government invested heavily in the sanitary improvement of the rising town of Sahebganj rather than the declining Rajmahal was the financial profitability promised by Sahebganj. Similarly, the officials were assiduous to resist the outbreaks at Deoghar because it posed a more significant threat to disrupt the daily economic activities on a larger scale through diffusion.

On the other hand, vaccination in Jharkhand exemplified one of the most exciting and complex models in India. While the government tried to promote vaccination through its agency in the initial years, soon, they realised their limitations, as the natives offered widespread resistance. Therefore, the government introduced a more diverse and complex system named the 'Nadia Model.' But due to its regional specificities, we can rather call it the 'Chota Nagpur model' of vaccination which had a greater reliance on active cooperation with the inoculators. This heavy reliance on native cooperation resulted from an acute lack of trained vaccinators in Jharkhand. The educated natives of Bengal and Bihar hardly wanted to be employed among the 'savage' Adivasis and 'wild beasts of the forest' in a hostile situation. On top of that, the vaccinators and superintendents in Jharkhand were underpaid. Even though the district and circle officers realised the need for an extra allowance, the high authority was absolutely against it. As a result of the government's refusal to be more sensitive regarding the pay scale, the progress of several medical programmes was impeded. Additionally, the inconsistency and conflict among the officials diversified the government's opinions and often delayed essential decisions. The disagreements among the district-provincial officers or among the government departments were so recurrent that it seems inaccurate to interpret the terms like— 'Government reaction' or 'Government initiative' uniformly.

To overcome the numerous difficulties of the vaccination operations in Jharkhand, the government followed a policy of negotiation and oppression. This duality between negotiation and oppression became instrumental in establishing the hegemony of vaccination over the natives and the inoculators. Although this process resembles the Gramscian equilibrium of consent and coercion, the chances of cultural diffusion from the microscopic middle class or bourgeoisie of Jharkhand were minimal. In contrast, the government agents such as Zamindars were the most prominent in the anti-vaccination activities. They created a significant obstruction to the operations of the vaccination department in the rural areas of Jharkhand. Apart from them, the cultural diffusion among the Adivasi communities was highly unconvincing as they were considerably successful in resisting much of the colonial interventions over a large area of the Jharkhand.

In its attempt to address these challenges mentioned above, along with the geographical difficulties, diverse populations with different attitudes, lack of proper vaccinators, and reluctance in spending the necessary funds, the government introduced the licensed vaccination system. They reappropriated the existing agency of inoculators and privatized the vaccination to a large extent. But the inoculators were hard to pursue, and therefore the government became oppressive by implementing the Anti-Inoculation Act. This act was already functioning around the areas of Bengal proper and extended to Jharkhand in 1869. Since then, the local authorities charged several inoculators for practising hereditary inoculation and often imprisoned or fined them under the order of the District Magistrates. As a result, most of the inoculators retired from their age-old practice of inoculation. But such oppressions created a vacant space, and the government utilized the same agency of the native inoculators to fill the gap by convincing them to perform the vaccination. This negotiation saved the government from its economic responsibilities as a state and made it possible to reach the people who had previously opposed the vaccination operations. While the natives of Jharkhand, by and large, were left with no

other options but to accept vaccination as the only mode available, a few communities like the Santhals became less hostile towards vaccination as they had the previous familiarity with the inoculators.

Despite the extensive opposition of the natives in Jharkhand against the western medical interventions, a group of zamindars emerged, who willingly or unwillingly supported the vaccination and other medical initiatives. Several of them built dispensaries in their localities, while others tried to set an example to the people by taking vaccination publicly. On the other hand, the government found its alliance among the newly emerging middle class and the 'reputed natives'. Babu Haragauri and Tarini Prasad took the initiative to employ native doctors to treat cholera Rohini, and the Raja of Darbhanga donated funds to improve water supply and drainage. At Deoghar, prominent natives participated and actively helped the government execute its sanitary developments plans and these attempts were few.

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