A Dreadful Disease and its Socio-economic Impact in Colonial Bankura

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Abstract

The Colonial British Government established their empire in India for trade and commerce; but their only intention was economic needs. Naturally they had very little embarrass to protect indigenous human health. So, the British, after the establishment of colonial rule started railways and built roads to improve the communication system. As a result, the vehicles reached to the non-developed geographical areas, altering the previous situation. On the basis of diseases like Cholera, Malaria, Smallpox, Plague, which were not rare in India, started a new field of epidemiological history. Malaria was emerged as a dreadful disease in colonial India whose mortality and morbidity rate was very high. In this discourse, I have highlighted the prevalence, impact and mortality rate of Malaria in colonial Bengal, with special reference to Bankura. The common people's belief about this disease and their response to government measures to mitigate the diseases have been significantly discussed also. It has been emphasised how much malaria had affected the agriculture and education system of colonial Bankura.

Key words: Colonial, Dreadful, Government, Malaria, Mortality, Socio-economic.

Introduction: Malaria emerged as a major public health crux in Colonial India. The mortality and morbidity rate of this disease was very high. No province in colonial India was free from malaria outbreaks. In general, one million people died each year in colonial India due to Malaria. Two-thirds of Bengal's villages were affected by the Malaria. Near about 60% of the people of colonial Bengal

were affected by malaria every year.² The epidemic malaria was first spread in Mamudpur of Jessore in Bengal during 1824-1825. This malaria had been epidemic for almost 100 years from the mid of 19th century to 20th century. Its destruction was carried out in almost whole Bengal.³ Malaria was not new in Bengal. Malaria was present in Bengal since the time of Atharva Veda. However, from the mid-19th Century the malaria took the shape of an epidemic. At first Ulagram was reduced to rubble then malaria came to Chakda (which is situated in 24 Pargana district) along the Hooghly River. In between 1857 to 1859 outbreaks of Malaria had reached in Tribani, Bansberia and Bandel of Hooghly. Subsequently devastating the Pandua and Dwarabasini, malaria arrived in 1867 as an epidemic on the eastern shores of Damodar. Exactly within the next 10 years, the epidemic reached Arambagh and Goghat in Hooghly district. In 1866, malaria became an epidemic in Burdwan district. Malaria entered Ghatal in Medinipur district in 1868. The city Calcutta, main administrative centre of colonial Bengal Presidency, was not free from the onslaught of the epidemic.⁴

In Bengal Presidency, Bankura is one of the six districts of Burdwan Division. Bankura district is situated in the middle of eastern plain region of Bengal and western part of Chhoto Nagpur Plateau.⁵ Bankura is located in the middle area of *Rarh*. So, it is considered as middle *Rarh*.⁶ Presently, Bankura is the third largest district of West Bengal. The Cancer Line has passed over the district. This district looks like an isosceles triangle.⁷ Most parts of the district are made of latarite and silt soil.⁸ The colonial Bankura was mainly an agricultural district. Topographically this district divided into two main parts. One portion, Alluvial plain land, which is comprised of Kotulpur, Indas, Patrasayer and western part of Sonamukhi police station, where bi-crops cultivated Sali and Suna land are present. Another portion, the high and curved moram dunga land, made by sand gravel, those are mostly inappropriate for cultivation, Barren land, forest and small hills are present here. In this region the following police stations are

included Mejia, Gangajalghanti, Saltora, Chatna, Indpur, Khatra and Raipur.⁹ In the eastern part of the district low-laying land is present, for this reason, the drainage condition is very poor. Water-logging is a common feature of this area.¹⁰

According to the information given by Dr. Atul Sur, in the eighteenth century, Bauri was the most populous cast in Bankura, followed by Brahmin, Tili, Goyalas and chamars.¹¹ But, in the first decade of twentieth century, on the numerical side the most populous people in Bankura district are the Bauri Community and the next communities are the Santhal, Brahmin, Bagdi, Teli and Goyala.

Table no: 1

The population data of the major caste of Bankura district is given below (1908)

Cast	Total population
Bauri	113,325
Santhal	105,682
Brahmin	93,443
Bagdi	90,868
Teli	73,569
Goala	65,781

Source: L.S.S. O'Malley, *Bengal District Gazetteers Bankura*, 1908, Calcutta, p. 57.

Among the people of Bankura, the incidence of fever and other diseases was less to the people of Santal and Bauri communities, while the upper caste people were more affected by various diseases. The reason may be stated that they live in the western part of the district and have good hygiene and food habits.¹²

Most of the people of the district were connected with the agriculture.¹³ In colonial period, the economic condition of the people of Bankura was very poor.

Most of the people of Bankura used to spend their days without food and clothes, starvation was their daily companion. There was very little number of doctor and hospital in colonial period. ¹⁴Therefore, most of people of the district were deprived from the Western Medical facilities. In the colonial period, the famine was the matter of fact in this region. F.W. Robertson told that "In this respect it is almost unique in the province". ¹⁵ One of the reasons of famine devastation was repeatedly the attack of various types of life-threating diseases and also the socioeconomic distress of the common people. Renowned journalist Ramananda Chattopadhyay, in *Prabasi* journal Said that Bankura district was most degraded district of Bengal in colonial period. ¹⁶ The Indian chemist Prafulla Chandra Ray in his autobiography mentions the Bankura district of the British era as a ruined district of Bengal. ¹⁷

According to the information given by civil surgeon Dr. V. L watts, there was two types of fever present in Bankura, one malarial and another non malarial fever. Malaria fever was specially found in Indas and Kotulpur of Bishnupur subdivision. Non malarial fever mainly was found in the western part of the district.¹⁸ The first malaria epidemic entered the Bankura district in the early 1870s. Malaria became more devastating in the district in following decades.¹⁹ The eastern part of the Bishnupur sub-division was attached to the Malaria-prone Hooghly district and adjoining tracts of Khandoghosh and Golsi police station of Burdwan district. Naturally, this part of the Bankura district was badly affected by Burdwan fever. From 1872 to 1891, the population of Bishnupur sub-division of Bankura district decreased considerably.²⁰ Not only that, it is important to remember that environmental factors played an important role in the growth of the prevalence of malaria. The eastern part of the Bishnupur sub-division has alluvial low lands. Due to this the natural drainage system in this region was very poor and an unhealthy climate prevailed. Anopheles mosquitoes breed in the swamps, paddy fields and dirty ponds of this region. This mosquito played the main role to spread

the malaria parasite.²¹ On the other hand, western part of the district has porous laterite soils and undulating terrain. As a result, water did not accumulate, so the prevalence of malaria was relatively low there.²² In accordance with Western Medical System, unclean water bodies are the sources of all diseases.²³ Notwithstanding, the Government had not able to adopt any specific policy to improve the sanitary system of colonial Bankura. Due to bad sanitation the death rate of various like Malaria, cholera etc. was very high in the rural areas of Bankura.²⁴ Because of that, the eastern part of the district was more affected by Malaria. In 1875 i.e., during the first prevalence of Malaria epidemic in Bankura, Maa Saradadevi also suffered from the disease. At that time, there was a kind of local traditional medical system in the Jayarambati area to treat Malaria. Maa Saradadevi got cure from Malaria through this local traditional medical system.²⁵A large amount common people (especially rural areas people) of Bankura district used the traditional medical system to get rid from Malaria. Side by side, the people of Bankura also were highly dependent on God and Goddesses for medical treatment and curing diseases.²⁶ In 20th century, only one Western medical practitioner was available for 5-7 villages in colonial Bankura as well as Bengal.²⁷ Western medical system was too much expensive, the village doctor used to charge two rupees per visit to treat the patients. Poor people of the district could not able to pay the charges of doctor's visit charge. ²⁸ The Santals "have a superstition that witches every year go to the place called *Kundli purkhi*; from this tank they bring back with them the germs of certain diseases, specially epidemics ones, and in accordance with what they bring any year the people will have to suffer". 29 To cure from various diseases they used their own medical system. But they were heavily dependent upon their God and Goddesses to get rid from the epidemic of Small-pox, Cholera and Malaria.³⁰

According to the information given by Hunter and O'Malley, Quinine was used to cure Malaria.³¹ But, many people in rural Bengal did not want to take

quinine for malaria fever.³² These people became dependent on other medicine to get relief from malaria. Extract *Kalmegh* Liquid was manufactured in Bengal Chemical and Pharmaceutical Works Limited under the supervision of Dr. Prafulla Chandra Ray, which was used to get rid from Malaria. Besides, Extract of Gulancha Liquid Composite was famous as an anti-malarial drug.³³ A part of the people of Bengal wanted to get rid from Malaria by consuming such medicine. '*Malal*', prepared by Dr. Mohini Mohan Roy, a famous doctor in the region of Kotulpur, became known as the famous anti-malarial medicine in that area. Also, in the treatment of malaria, D. Gupta's tonic and Edward's tonic was widely used in the district.³⁴

From 1921to 1931 malaria was endemic in Bankura district mentioned by Amiya Kumar Banerji.³⁵ Though the number of people in Bishnupur Subdivision decreased. In this District malaria was epidemic during 1931-1940.³⁶ The prevalence of malaria in Bankura is traced from a statistics of Bengal government in 1922. The number of deaths due to malaria in Bengal was 5, 40,463; in Bankura the number of deaths was 52325 that is a little less than 10% of total Malarial death of Bengal. It is easily conceivable that this huge amount of Malarial death had a drastic impact on the Socio-economic life of the people of Bankura. During this time 149.3 pounds of quinine was sold in the district Bankura. Each patient consumed an average of one greans of quinine.³⁷

Some natural causes were blamed for the increase of prevalence in Malaria outbreak in Bengal, the introduction of some man-made modern systems were equally responsible. For example, introduce of railway disrupted the normal drainage system of Bengal, which led to the accumulation of water in various places, which forms as a breeding ground of mosquito.³⁸ The railway line of Bankura was started in 1900 through Howrah-Adra-Gomoh section of the Bengal Nagpur Railway. The railways in Bankura district were set up due to political, military and economic interest. The construction of lines of the railways disrupted

the normal drainage.³⁹ Kedar Nath Chattopadhyay wrote in *Prabasi Partrika* that in 1905, the normal drainage system in the district was completely destroyed, which led to spread of Malaria like an epidemic.⁴⁰ There were plenty of filthy tanks in Bankura district, especially in the Bishnupur sub-division. Malaria parasite host mosquito, Anopheles breeds in the stagnant water of closed reservoirs, naturally filthy tanks and rice fields took a vital role in spreading of Malaria.⁴¹ In a government report, it was declared that overgrowth of water hyacinth in reservoirs one of the causes of Malaria out breaks.⁴² But, the colonial government did not adopt any initiatives to improve the district's sanitation and drainage system.

According to a government report published by Health Department of Bengal Province in 1926, 5, 43, 899 people died from Malaria in that year. In other words, near about an average of 1.5 thousand people were died from Malaria every day in Bengal.⁴³ In colonial Bengal, the prevalence of Malaria was high during August to December. In those months, people of all ages, young to old in Bengal, were afraid of that dreadful disease. Not only that, but they also took mental preparation by thinking that they will have to fight with this terrible enemy in these few months. There was widespread anger among the common people of Bengal over the government's role on the malaria prevention programme. They said that the government had spent a lot of money and taken various measures to catch criminals involved in theft, robbery, murder etc., but even though the villages of Bengal had become crematoriums due to attack of malaria, the government had not taken any special measures to prevent that.⁴⁴ Anti-malarial operation was taken only for the profitable areas and somewhere about European dwellings. But, unfortunately the areas from which British Raj had no direct benefit were completely neglected.⁴⁵ Bankura was not so important to the Colonial Government that is understood in Hunter's writing where he said "This is an unimportant jail, but quite sufficient for an unimportant district". 46 In

this situation Gandhian Congress workers in the Bankura district came forward to the anti-malaria struggle. Gandhian leaders of Kotulpur, Manmathanath Mallick, Rakhal Chandra Nag, etc, formed *Kotulpur Hitasadhan Samiti* at Kotulpur to fight against malaria. In the same context, *Mirzapur Union Palli Sanskar Samiti* was formed by Bibhutibhushan Ghatak in 1927.⁴⁷

As a result of this dreadful attack of Malaria, villages of Bengal were depopulated. In the daytime, roaming of ferocious wild animal was a common picture in the villages of Bengal.⁴⁸ The health system of colonial Bengal was in a very deplorable condition. Diseases like Malaria, Cholera, Small-pox etc. ravaged freely in the villages of colonial Bengal. The peasant community of the villages of Bengal was dying-in condition.⁴⁹ Due to malaria, the population of the districts of Bengal was gradually reduced. Moreover, people suffering from recurrent fever also reduced ability to work. A large amount of land in the districts remained uncultivated due to lack of agricultural labour.⁵⁰ Even on the eve of Independence, a part of Bankura's agricultural land remained uncultivated. In the year 1947-48, 20.87% of the total cultivation land in Bankura district remained uncultivated.⁵¹ Among other factors, the manpower problem also took an important role in the plight of agriculture in the district. Like the other districts of Bengal, due to repeatedly sufferings from malaria fever, the ability of agricultural work of the people of Bankura district was minimised,⁵² which had a worsened impact on the district's economy.

District Health Officers and District sanitary Inspectors were the in-charge of anti-malarial measures in the rural areas of Bengal. The anti-malarial measures that were taken by the colonial government with the help of district boards in the rural areas of Bengal were as follows, "Free distribution of quinine and cinchona by the district boards through their dispensaries and special anti-malaria and public health centres and propaganda by magic lantern lectures, and distribution of lectures constituted the main activities of the district boards in this direction." ⁵³

The district Board was responsible for the administrative activities such as maintenance of Road, Bridges, Ferries, Pond, Sanitation, Water supply system, Medical Relief etc. All the above mention works are completed by District Board with the help of Bankura and Bishnupur's Local Board and Kotulpur Union Boards.⁵⁴ The District Board was diligent in preventing the spread of epidemic diseases, especially malaria. Since 1885, the Bankura District Board had been carrying out the all-important and responsible functions imposed on it by the government but their main obstacle in carrying out its activities was financial stringency.⁵⁵ The residents of Birshinghapur were severely affected by malaria. As a result, no students came to Primary School for four months.⁵⁶ Since, Birshinghapur and its adjoining areas were not guaranteed to be malaria free for a long time, the District Board decided to move the Primary school. The Government as well as the District Board extended its hand to stop the malaria scourge. In 1937, Anti-Malarial Society was formed in Bankura district with the initiatives of government and District Board. Total twelve Anti-Malarial Societies was formed in the district.⁵⁷ According to the advice of anti-malarial societies, the common people of villages, teachers and students all emphasized on the practice of cleaning the bushes of the village, removing the rotten water from the *Dobas* and cleaning the water hyacinth from the water reservoirs. These societies also distributed medicines to the people suffering from malaria free of cost.⁵⁸ Following table shows the location of the different anti-malarial societies in the district Bankura.

Table No:2

Location of the Anti- Malarial Societies

Sl. No	Anti-Malarial	Contribution of	Contribution of	Total
	Society	Government	District Board	
1	Bhadul	Rs. 100	Rs. 50	Rs. 150
2	Bhutsahar	Rs. 90	Rs. 45	Rs. 135
3	Krishnabati	Rs. 100	Rs. 50	Rs. 150
4	Hadalnarayanpur	Rs. 100	Rs. 50	Rs. 150
5	Kaktiya	Rs. 100	Rs. 50	Rs. 150
6	Parulia	Rs. 70	Rs. 35	Rs. 105
7	Narra	Rs. 60	Rs. 30	Rs. 90
8	Joypur	Rs. 80	Rs. 40	Rs. 120
9	Indas	Rs. 100	Rs. 50	Rs. 150
10	Shanbanda	Rs. 60	Rs. 30	Rs. 90
11	Balut	Rs. 40	Rs. 20	Rs. 60
12	Kotulpur	Rs. 100	Rs. 50	Rs. 150
	Hitasadhan Samiti			

Source: Bankura District Board Health Committee Proceedings, dated 17.08.1937. (Bankura District Board Record Room).

Considering the above table, it can be understood that most of the anti-malarial societies were formed in the Bishnupur Sub-division. As the prevalence of malaria was very high in the Bishnupur sub-division within the Bankura district, so the formation of these societies was much more in these areas. In 1932 the prevalence of Malaria was very high in four villages under the kotulpur Union

Board, namely Shiromonipur, Baghrol, Ganti and Jaganathpur.⁵⁹ In 1939, the then Sanitary Inspector of Kotulpur Public Health Committee Krishna Chandra Singha mentioned the severity of Malaria in the Kotulpur region in a letter to the District Health Officer.⁶⁰ The terrible picture of Malaria at that time is shown in the table number 3.

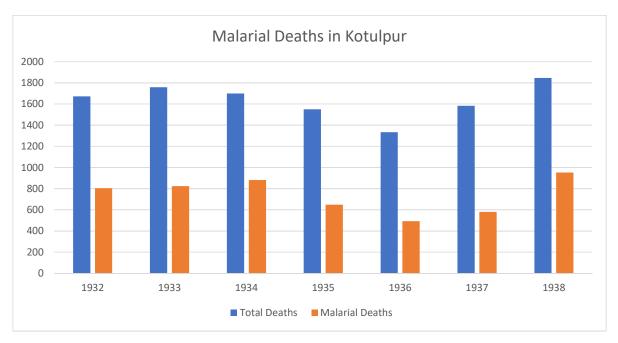
Table No. 3

Statement of total deaths and Malarial deaths at Kotulpur from 1932 to 1938

Years	Total Deaths	Malarial Deaths
1932	1673	805
1933	1758	825
1934	1700	881
1935	1550	648
1936	1334	493
1937	1584	580
1938	1847	953

Source: Letter from Krishna Chandra Singha, Sanitary Inspector, Kotulpur Public Health Committee to the District Health Officer, Bankura on 10 June 1939.

From the above the table, it is clear that at that time almost half of the total deaths in Kotulpur area of Bankura district were due to Malaria. This is reflected in the Bar diagram as follows.



Source: Letter from Krishna Chandra Singha, Sanitary Inspector, Kotulpur Public Health Committee to the District Health Officer, Bankura on 10 June 1939.

Bishnupur sub-division of Bankura district was a developed area as an agricultural as well as economic perspective. Mainly, due to Burdwan fever, malaria was not only prevailed in Bishnupur town but also in the entire Bishnupur Sub-division and the population was declined. From 1921 the population of Bishnupur town was gradually decreasing, in 1941 the population was 24961.⁶¹ According to Sir Ronald Ross's words. "malaria fever is important not only because of the misery which it infects upon mankind, but because of the serious opposition which it has always given to the march of civilization in the tropic. Unlike many diseases, it is essentially endemic, a local malady and one which unfortunately haunts more specially the fertile, well-watered and Luxuriant tracts-precisely those which are of the greatest value to man."⁶²

Conclusion:

Bankura district is situated in the central part of Rarh Bengal. District looks like an isosceles triangle. The economic condition of the common people of Bankura was not sound during the colonial period. Malaria emerged as a major

public health problem in Colonial Bengal, as well as Colonial India. The mortality and morbidity rate of Malaria was very high in Colonial Bengal. Bankura district did not get rid of the occurrence of this Malaria, where a huge number of peoples were affected by physically, socially and economically. Due to poor Sanitary system in the rural area of Bankura, the prevalence, impact and mortality rate of Malaria was so much high than the district administrative centre. District Boards and Anti-malarial societies of Bankura, as well as Bengal, played an important role to Malaria eradication, whither government's contribution was very nominal. Financial stringency of Bankura District Board was great hinderance to take measures to Malaria eradication. There was widespread anger among the common people of Bankura and Bengal over the government's role on the malaria prevention programme. Gandhian Congress workers in the Bankura district came forward to the anti-malaria struggle. The Santals considered that the Malaria epidemic was the influence of *Daini* (witch). People suffering from recurrent Malaria fever which reduced their ability to work. A large amount of land in the districts remained uncultivated, which had a worsened impact on the district's economy. Malaria was very high in the Bishnupur sub-division within the Bankura district. It is necessary to remember here, Bishunupur Sub-division is luxuriant area of Bankura District. Villagers were highly affected to Malaria Epidemic. The Malaria had made the lives of children in the Bankura district miserable and had become a barrier to their proper education. Due to insufficient infrastructure of Western Medical System in the district, common peoples were dependent on Traditional medical system and grace of God or Goddess to save their life from Malaria epidemic. Western medical practitioners were not available every village in colonial Bankura as well as Bengal. So, most of the people of colonial Bankura were dependent on their destiny to get rid from Malaria.

¹ Arabinda Samanta, Rog Rogi Rastra Unish Sataker Bangla, Progressive, 1st edition, Kolkata, 2004, p. 17.

² *The Indian Year Book: 1942-43, Volume XXIX*, edited by Francis Low, Publishing by Bennett, Coleman & Co. L.T.D, p. 590.

³ L. S. S. O'Malley, *Bengal District Gazetteer, Jessore*, Calcutta, 1912, pp. 61-62.

⁴ Arabinda Samanta, *Op.cit*, p. 17.

⁵ Sukanta Majumder, *History of Health and Medicine in Colonial and Post-Colonial Bankura: 1900-1977*, Thesis submitted to Bankura University for the Degree of Doctor of Philosophy, Department of History, 2023. P. 37.

⁶ *Ibid*, p. 36.

⁷ *Ibid*, p. 38.

⁸ L. S. S. O'Malley, Bengal District Gazetteers, Bankura, 1908, p. 8.

⁹ Sanjoy Mukherjee, *Opanibasik Amolay Bankurar Orthoniti*, in *Bankura Parichai: 3rd volume*, edited by Parthapratim Majumdar, Chandidas Mukherjee, Sanjoy Mukherjee and others, Progressive, Kolkata, 2012, p. 256.

¹⁰ Amiya Kumar Banerji, West Bengal District Gazetteers, Bankura, 1968, Sree Saraswaty Press, Calcutta, p. 478.

¹¹ Dr. Atul Sur, Attharo Shataker Bangla O Bangali, Sahityalok, Kolkata, 1985, p. 13.

¹² L. S. S. O'Malley, *Op.cit*, p. 80.

¹³ L. S. S. O'Malley, *Op.cit*, p. 45.

¹⁴ Prabasi, Jaistha, 1326 BS, 19th Bhag, 1st khanda, 2nd sankha, p. 165.

¹⁵ F. W. Robertson, *Final Report on the Survey and Settlement Oparations in the District of Bankura, 1917-1924,* Calcutta, 1926, p. 18.

¹⁶ Ramananda Chattopadhyay, *Bankurar Unnoti, Prabasi, Baisakh*, 1331, B.S, 24 *Bhag*, 1st khanda, 1st *sankh*a, p. 114.

¹⁷ Prafulla Chandra Ray, Atmancharit, 1st published in 1973, Dayspublishing, 1st edition, Kolkata, 2011, p. 379.

¹⁸ L. S. S. O'Malley, Bengal District Gazetteers, Bankura, 1908, pp. 80-81.

¹⁹ Rathindra Mohan Chaudhuri, *Naya Bankurar Gora Pattan O Bikash*, Paschim Rarh Itihas O Sanskriti Charcha Kendra, Bankura, 2007, p. 134.

²⁰ Amiya Kumar Banerji, West Bengal District Gazetteers, Bankura, 1968, Sree Saraswaty Press, Calcutta, pp. 478-79.

²¹ L. S. S. O'Malley, *Op. cit*, pp. 80-81.

²² L. S. S. O'Malley, *Op. cit*, p. 81.

²³ Annual Report of the Sanitary Commissioner For the Year: 1882, p. 94.

²⁴ Sukanta Majumder, Sanitation Policy in Colonial Bankura, Samaj O Rajniti, 21st Year, 1st Sankha, 2021, p. 98.

²⁵ Swami Biswashrayananda, *Sisuder Maa Saradadevi*, 1st in 1978, 30th Reprint, Udbodhan Karjalay, Kolkata, 2021, p. 21.

²⁶ Rathindra Mohan Chaudhuri, *Op. cit*, p. 120.

²⁷ Sarat Chandra Chattapadhyay, *Charitrahin*, Reflect Publication, Kolkata, 1996, p.149.

²⁸ Sarat Chandra Chattapadhyay, *Pandit Mashy*, Gurudas Chattapadhyay and Sons, Calcutta, 1920, pp-77-78.

²⁹ Rev. P.O. Bodding, *Studies in Santal Medicine and Connected Folklore*, Part I, II, III, 3rd reprint, The Asiatic Society, Kolkata, 2011, p. 7.

³⁰ Abir Lal Bandyopadhyay, *Bankurai, Santal Adibasi Somajer Swastha Vabnai Oeitijha: Opanibeshik Adhunikata, Somaj O Rajniti*, 13th *Barsha*, 2nd *Sankha*, 2014, p. 17.

³¹ L. S. S. O'Malley, *Op.cit*, p. 81; W. W. Hunter, *The Statistical Account of Bengal, Vol IV*, Trubner & Co, London, 1876, p. 303.

³² Tarasankar Bandopadhyay, *Arogya Niketan*, 25th Reprint, Prakash Bhaban, Kolkata, 1424 B.S, p. 14.

³³ *Prabasi*, 2nd *Bhag*, 4th *Sankha*, 1309 B.S, p. 162.

³⁴ Kotulpur Uchhavidalaya Satabarsha Purti Smaranika, 1991, p. A/2.

³⁵ Amiya Kumar Banerji, *Op.cit*, p. 480.

³⁶ *Ibid*, p. 480.

³⁷ Ramanuj Kar, *Bankura Zelar Bibaran*, Kenjakura, Bankura, 1332 B.S, p. 48.

³⁸ Bangay Malariar Adim Itihas, Kosthi Pathar, Prabasi, Joistha, 1332 B.S, p. 255.

³⁹ Amiya Kumar Banerji, *Op.cit*, p. 329-30.

⁴⁰ Kedar Nath Chattopadhyay, *Banglar Khahisnutama Zelar Unnayan*, *Prabasi*, 51 Bhag, 2nd Khanda, 1st Sankha, 1358 B.S., p. 51.

⁴¹ Census 1951, West Bengal District Hand book Bankura, A. Mitra, p. xxxiii.

⁴² Fifty-Eight Annual Report of the Director of Public Health Bengal: 1925, p. 69.

⁴³ Mukti, 1st Year, 32nd Issue, 26th July, 1926, p. 8.

⁴⁴ Pallibasi, 26th August, 1925.

⁴⁵ Binata Sarkar, *Malaria Fever and its Control in Burdwan district: A Critique on Colonial Health Policy,* in Arabinda Samanta, Syed Tanveer Nasreen, Aparajita Dhar edited *Life and Culture in Bengal*, Progressive, Kolkata, 2011, p. 95.

⁴⁶ W. W. Hunter, *The Statistical Account of Bengal, vol-IV,* Trubner & Co., London, 1876, p. 292.

⁴⁷ Rathindra Mohan Chaudhuri, *Op.cit*, p. 134.

⁴⁸ Prabasi, 3rd Part, 8th Issue, Agrahayan 1310 B.S, p. 311.

⁴⁹ *Palli-sri*, 1st Year, 10th Issue, 1345 B.S, p. 8.

⁵⁰ *Palli-sri*, 1st Year, 5th Issue, 1345 B.S, pp. 4-6.

⁵¹ Census 1961, West Bengal, District Census Handbook, Bankura, B. Ray, Printed by the Anu Press, Calcutta, p. 135.

⁵² Palli-sri, 1st Year, 5th Issue, 1345 B.S, pp. 4-6.

⁵³ Fifty- Eight Annual Report of the Director of Public Health Bengal: 1925, p. 68.

⁵⁴ L. S. S. O'Malley, *Op.cit*, p. 114.

⁵⁵ Abir Lal Bandyopadgyay, *The Local Intelligentsia in a Bengal District: Bankura 1869-1947*, Unpublished Thesis submitted to The University of Burdwan for the Degree of Doctor of Philosophy in Arts (History), 2018, p. 83.; Letter No. 401/VII-3(b) from Babu Woomesh Chandra De, BA, BT, District Inspector of Schools, Bankura to the Chairman.

⁵⁶ Rathindra Mohan Chaudhuri, *Bankurajaner Itihas-Sanskriti*, Granthakar, 1st edition, Bankura, 2000, p. 378.

⁵⁷ *Ibid*, pp. 378-79.

⁵⁸ Ramkrishna Das, Bankura Zelar Sadhinata Sangramider Sankhipta Bibaran, pp. 85, 107-08.

⁵⁹ Abir Lal Bandyopadhyay, *The Local Intelligentsia in a Bengal District: Bankura 1869-1947*, Thesis submitted to The University of Burdwan for the Degree of Doctor of Philosophy, Department of History, 2018.

⁶⁰ Letter from Krishna Chandra Singha, Sanitary Inspector, Kotulpur Public Health Committee to the District Health Officer, Bankura on 10 June 1939.

⁶¹Census of India, 1941, pp. 20-21; Census of India, 1921, Vol. V, Part-1, p. 46; Census of India, 1931, Vol. V, Part-1, p. 39.

⁶²Government of Bengal, Public Health Department, Report on the working of the Anti-malaria Campaign in Rural Areas of Bengal with Quinine and Plasmochin For the First Year: 1933-34, p. 3.