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The Epidemic Diseases Act (1897): A study of international and domestic pressures on British epidemic policy formation in India

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ABSTRACT

The Epidemic Diseases Act (EDA) was enacted in February 1897 by the Government of India to prevent and control the spread of the plague. Since then, the Act has become a key legal tool for the control of epidemics/pandemics in India. We attempted to understand the international and domestic pressures that led to the adoption of the EDA in three ways. First, we analyse the legislative structure (Bombay Municipal Act of 1888, Indian Railways Act of 1890, and Act I of 1870) that dealt with infectious or contagious diseases in colonial India before the EDA came into force. Second, we focus on the linkages between international and domestic pressures that necessitated the adoption of the EDA. Third, we analyse the discussions of the Council of the Governor General of India on the bill titled 'A Bill to Provide for the better prevention of the spread of Dangerous Epidemic Diseases', which later became the Epidemic Diseases Act No. III of 1897. We situate the EDA in an international context of International Sanitary Conferences, quarantine, trade concerns, and pilgrimage to Mecca in order to understand the pressures that impacted British epidemic policy formation in colonial India.

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INTRODUCTION

The Epidemic Diseases Act (EDA) was passed on 4 February 1897 by the Government of India to prevent and control the spread of the plague, which reached the shores of Bombay (now Mumbai) in 1896. With increased globalization and ships navigating across the globe, the plague reached pandemic proportions, and its effect was felt throughout the world.[1] India was impacted by the plague with one of the highest mortality rates; it was estimated that India lost around 12 million lives between 1896 to 1930.[2] It led to the adoption of stringent precautionary measures by local administrations and the Government of India to prevent disease transmission inland and at sea ports.

The legislative structure dealing with infectious or contagious diseases in colonial India was fragmented in nature. The EDA was the first step in the creation of a single legislative framework to control the spread of epidemics in India and from India to other countries. A brief Act with only four sections, it laid the foundation of the pandemic/epidemic control policies in India. It was recently employed by the Indian government to control the spread of Covid-19 in the country. The EDA provided the colonial administration with 'exceptional' powers to control the spread of the plague.[3] In the words of David Arnold, the EDA

> gave the government power to detain and segregate plague suspects, to destroy property, inspect, disinfect, evacuate and even demolish dwellings suspected of harbouring the plague, to prohibit fairs and pilgrimage, to examine road and rail travellers—in short, to do anything almost medical and official opinion believed to be necessary for the suppression of the disease.[3(p59)]

We explore the role of international and domestic pressures that led to the adoption of the EDA (1897) in three ways. First, we analyse the legislative structure that dealt with infectious or contagious diseases in colonial India before the EDA came into force. It focuses on the Bombay Municipal Act of 1888, the Indian Railways Act of 1890, and the Act I of 1870 which had provisions that dealt with infectious diseases. Various regulations dealing with plague precautionary measures were enforced under these laws between the months of September 1896 and February 1897. David Arnold,[3–5] Ira Klein,[2] Rajnarayan Chandavarkar,[6] I.J. Catanach,[7–9] and others[10–12] have engaged in-depth with the Indian responses against the plague-preventive measures. We focus on the laws and regulations that were instituted in the initial stages (September 1896–February 1897) to prevent the spread of the plague.

Second, we focus on the linkages between international and domestic pressures that led to the adoption of the EDA. International pressures focus on International Sanitary Conferences (Note 1), quarantine restrictions, international commercial interests, and the pilgrimage to Mecca. Domestic pressures focus on the inadequacies of legislative structure, loss of trade for British India, and fear of transmission of plague to other parts of the country. We build on the work of Mark Harrison and Sandhya Polu who have engaged with the role of international events and treaties in the development of public health policies in colonial India. Harrison has focused on the British colonial trade and pilgrimage to Mecca in the context of International Sanitary Conferences.[13–15] Polu in her work investigates the role of 'international public health diplomacy, epidemiology, trade protection, imperial governance, new medical technologies, and cultural norms' in shaping the Government of India's infectious diseases policy at three levels

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(colonial, imperial and international).[16(p3)] By taking the EDA as the focal point, we attempt to understand the role and linkages of various factors at the international and domestic levels that shaped the infectious/epidemic disease policy of India.

Third, this work analyses the discussions of the Council of the Governor General of India on the bill titled 'A Bill to Provide for the better prevention of the spread of Dangerous Epidemic Diseases', which became the Epidemic Diseases Act No. III of 1897. The Council discussed the passage of the bill, suggestions of the public, the extent of the power provided in the bill, the pilgrimage to Mecca, and policies of segregation.

Though the history of the plague pandemic is extensively researched and scholars have pointed out the importance of the EDA in British epidemic policy-making, there is a lack of deeper engagement with the Act. The linkages between international and domestic developments impacting the adoption of the Act are also understudied. The paper addresses this by analysing the discussions around the adoption of the EDA in the Council as well as in vernacular newspapers from the Bombay Presidency and the Punjab and Central provinces.

LEGISLATIVE FRAMEWORK AND PREVENTIVE STRATEGIES

In India, the third plague pandemic (Note 2) was officially first detected in September 1896 (Note 3) in the Bombay Presidency.[11] Multiple theories were propounded regarding the advent of plague in India but no concrete evidence was found to ascertain whether it was indigenous or imported (Note 4). The plague bacillus (*Yersinia pestis*) was discovered in 1894 by Alexander Yersin (1863–1943) in Hong Kong but the role of rat fleas as a vector in the transmission of plague was not discovered till 1898 and it was finally established in 1908 only.[3,17,18] Along with the ambiguity regarding the mode of transmission and the treatment of plague,[8] the lack of experience in British medical professionals in dealing with the plague in India led to the adoption of preventive measures that revolved around segregating the plague patients as well as sanitizing and disinfecting buildings and goods.[14]

The arrival of plague in Bombay created panic in all sections of the society and around 100 000 people fled the city by January 1897.[6,14] The fear of trade and social disruption led to an initial reluctance in the administration to accept the disease as bubonic plague.[6] In a telegram dated 30 September 1896, the Governor of Bombay stated that the city had a 'mild type of bubonic plague' and the 'Municipal Commissioner considers no cause for serious alarm at present'.[19(p3)] As the plague advanced into other districts of the Bombay Presidency and mortality rates increased, the government shed its initial reluctance and adopted measures to suppress the transmission of the plague.[20] In *The Plague in India 1896, 1897 (Vol. 1),* R. Nathan (Indian Civil Services) classified the measures into four categories:

> (1) Measures to suppress the disease in plague centres, and to prevent isolated cases establishing a fresh focus of infection; (2) Measures to prevent the spread of infection of persons travelling by land; (3) Measures to prevent the spread of infection travelling by sea; (4) Measures to prevent the spread of infection by merchandise and food stuff.[21(p127)]

On 6 October 1896, a notification was issued that extended the powers of the Municipal Commissioner of Bombay under Section 434 of the Bombay Municipal Act III of 1888.[22] Section 434 of the Act empowered 'the commissioner' to take special measures 'if he thinks the ordinary provisions of this Act, or any other law at the time in force are insufficient' for the prevention of disease.[23] The notification extended the powers conferred in the Bombay Municipal Act under Sections 422, 424, 425 and 427. It empowered the officials to 'break open and forcibly enter any such building or part of a building' without notice to the owner or occupant.[24(p1034)] The officials could also cleanse and disinfect the building as well as 'direct or cause the forcible removal and disinfection or destruction of any grain, bedding or clothing, goods or articles'.[24(p1034)] The officials could 'remove' a certified patient of bubonic plague 'to any hospital or place at which patients suffering from' plague 'are received for medical treatment'.[24(p1034)] Moreover, any house with plague patient(s) was to be isolated and the officials were empowered to 'forcibly prevent persons from leaving or entering such house'.[24(p1034)] In October 1896, the Bombay Municipal Act was extended to Poona Cantonment (now Pune) under Section 25 of the Cantonments Act, 1889 which allowed the extension of 'any enactment' which was enforced in 'any municipality in British India' by the powers conferred on the Governor General in Council.[25] The temporary regulations devised for the cantonment were also on similar lines of inspection, disinfection, and segregation.[26]

The response of Bombay's population to the notification of 6 October 1896 was defined by panic (Note 5) and exodus.[22] These policies resulted in riots and the attack on Arthur Road Hospital (Note 6) on 29 October 1896 reflected widespread discontentment among people.[27] P.C.H. Snow, the Municipal Commissioner of the city, commented that it 'was exclusively directed against the segregation of the sick and removal to hospital—the one measure which the people—high and low—viewed with the wildest hostility and determined not to tolerate'.[22(p6)]

With official recognition of plague in the city of Bombay, the disinfection of gullies and sewers was undertaken with zeal.[22] Carbolic acid, chloride of lime, naphthalene, permanganate of potash, cresol preparations, quicklime and perchloride of mercury were used as disinfectants. The port trust drains which were approximately 26 000 feet in length were cleaned of silt and around 450 manholes were constructed between 25 September 1896 and 17 November 1896. The disinfection also included the burning of clothes, rags and other items belonging to fever or plague suspects.[22] Grains, goods and merchandise were disinfected to prevent the transmission of plague.[28] The warehouses of grains were disinfected and sanitized as initial cases of plague were found in the storages of Mandvi. The godowns with plague cases were closed for 20 days and grain was exposed to the sun; followed by the disinfection of buildings by burning sulphur. Shops with plague cases were closed and the items were exposed to the sun for at least a day. They were disinfected and fumigated for 3 days before they were allowed to be reoccupied. The disinfection also consisted of the burning of large amounts of food preparations or sweets that were considered contaminated.[22]

The spread of plague from Bombay to other regions within India through railways was a pressing concern for authorities in October 1896.[29] The fear of plague as well as stringent plague eradication policies resulted in a mass exodus from the Bombay presidency to the hinterland, which in turn led to the diffusion of plague in the latter.[12] In October 1896, orders were given

under the Indian Railway Act of 1890 for 'medical inspection of passengers' at the 'important stations along the main lines from Bombay'.[19(pp18–19)] The Act under chapter VI Section 71 empowered the authorities to 'refuse to carry […] a person suffering from any infectious or contagious disorder'.[30] The Act also specified that an individual suffering from an infectious disease would not be allowed to travel without special permission from the railway master or a railway servant. Lastly, it was specified that arrangements should be made 'for the separation of the person suffering from the disorder from the other persons being or travelling upon the railway'.[30] Section 117 of the Indian Railways Act prescribed punishment if an individual suffering from infectious or contagious diseases undertook railway travel.[30] The regulations promulgated under the Act instituted a system of medical examination, surveillance of passengers arriving from infected areas, and disinfection of merchandise and clothing.[31] In the majority of the countries, plague remained a port city infection but due to the presence of large railway networks, extensive grain trade and human mobility, plague reached the interior parts of colonial India.[2]

To reduce the spread of plague via sea, quarantine measures were instituted at ports under Act I of 1870. A small Act with only two sections, it empowered the Governor General of India in Council and local administrations to make rules relating to the quarantine of vessels as well as to regulate the interaction between a vessel and a port in case either of them was infected.[32] The Government of Bombay under this Act devised certain quarantine rules for vessels leaving Bombay for the ports of Aden, Perim and the Somali coast. The rules provided directives to the vessels regarding signalling (flags and light signals) before entering a port, communication regarding plague cases on vessels to the Health Officer of the port, and quarantine measures to be adopted if there were plague cases on board. Rule IV of the notification specified the days of quarantine if an individual suspected of plague was found on the ship:

> If the Health Officer […] shall have reason to believe at the time when the vessel arrives in the harbour that any person on board is suffering, or during the voyage has suffered, from plague, he shall direct the Commander to take the vessel to the quarantine anchorage as aforesaid, and there to remain for a period of fifteen days from the day of arrival in the harbour […].[24(pp1032-1033)]

Similar quarantine rules were devised by the Madras government against the vessels arriving from Bombay port under the Act 'as a temporary measure at the Madras port'.[19(p74)] The transportation of rags and second-hand clothing by sea was prohibited under the Sea Customs Act (1878) from the ports of Bombay and Karachi to other Indian ports (Calcutta, Rangoon and Madras).[21]

The regulations enacted under these legislations presented the government with certain legal questions regarding the scope of the existing laws. The legality of the regulations dealing with the removal of the plague patients from the train and isolation in a temporary hospital led to uncertainty in the administration as it did not come under the purview of the Indian Railways Act. On 3 January 1897, a conference held at Lieutenant-Colonel Hutchinson's (Commissioner of Lahore) house discussed the legality of the issue and Dr Raye (Inspector General of Civil Hospitals, Punjab) felt that he was unable to provide necessary guidelines and instruction in this regard 'unless assured that such instructions, whether in all respects legal or not, will be fully endorsed by the executive authorities'.[19(p30)]

Similar legal hurdles arose when regulations regarding the medical inspection of passengers were devised under Act I of 1870. In a telegram dated 27 January 1897, the Secretary to the Government of Bombay (General Department) wrote to the Secretary to India (Home Department) for the sanction of certain measures. Devised under Act I of 1870, these measures dealt with medical inspection of individuals leaving Bombay by sea.[19] On 28 January 1897, the Secretary to the Government of India responded that 'regarding rules of medical inspection of ships and bills of health Government of India is doubtful whether they come entirely under the Act I of 1870, but they can be acted upon'; he also conveyed that a bill (Note 7) was introduced in the legislative council which will 'provide powers to make such rules'.[19(p88)]

The legislative framework and policies adopted by the government in relation to infectious diseases proved insufficient to control the spread of plague in other parts of the country. By the end of September 1896, the plague spread to Ahmedabad; and by December 1896, it reached Poona and Karachi.[1]

Before the adoption of the EDA, legal problems arose due to limitations of scope and limited jurisdiction of the existing laws. For instance, the Bombay Municipal Act and the Calcutta Municipal Consolidation Act of 1888 were legally applicable only to limited areas and were not uniform.[21] Due to the lack of a single legislative framework for British India, the regulatory response to the plague was fragmented in nature. R. Nathan commented that there was a need for 'more general and wide-reaching' legislation.[21(p130)] He further shed light on the apprehension of the Government of India regarding the higher mortality rates owing to plague, its transmission into other parts of the country, and its impact on trade which made it 'necessary to take special powers by legislation'.[21(p130)] Apart from these factors, various international and domestic pressures also necessitated the adoption of the EDA.

International and domestic pressures leading to the adoption of the EDA

The onset of the plague in Hong Kong in 1894 and then its transmission via steamships to Bombay created panic among European countries.[33] On 3 October 1896, the *British Medical Journal* announced the arrival of plague in Bombay and commented that:

> From a commercial point of view it is even more grievous than the recent outbreak in Hong Kong. Although Bombay in its harbour tonnage returns does not show much more than one third amount of Hong Kong, still the city is so central that whether seaward or landward the possibilities of spread are enormous.[34(p966)]

To safeguard commercial interests and ports from the plague infection, governments across the globe started instituting quarantine measures against Bombay Port in 1896. On 8 October 1896, quarantine was imposed at Bussorah (present day Basra) for 21 days against arrivals from Bombay Port.[35] The authorities at Constantinople also imposed a quarantine of 10 days against arrivals from Bombay on 16 October 1896.[36] France declared quarantine for 7 days against arrivals from Bombay and later also prohibited the importation of rags, old clothes, bedding

and raw hides.[19] Malta imposed 20 days of quarantine on arrivals from India. Cyprus, Egypt, Turkey and Morocco also imposed similar quarantine measures.[19] The colonial government was under immense pressure to employ stringent preventive measures and enact laws and regulations to stop the transmission of plague via Bombay Port and other Indian ports to European ports and their colonies.

The precautionary measures used by several countries revolved around the regulations devised at the International Sanitary Conference held in Venice (1892) and Dresden (1893). According to the Venice Sanitary Convention, the ships were classified into three categories: healthy, suspected and infected. Healthy ships referred to those ships that had recorded no cases of plague during the time of departure or during the voyage after leaving an infected port. Suspected ships recorded cases of plague but no fresh cases were recorded within 9 days. Infected ships were those which recorded the cases of plague within 9 days of their arrival.[21]

In the Suez Canal, the infected ships were to be detained at a sanitary station and the sick on board were to be sent to hospitals whereas healthy individuals were to be kept under observation. France imposed severe regulations on passengers from India; in Marseilles, passengers arriving from Bombay in some instances were not allowed to disembark. France employed a series of quarantine measures against both healthy and infected ships. Other countries such as Belgium, Italy, Portugal, Holland, and others also devised regulations based on the larger framework of regulations established by International Sanitary Conferences.[21] The Government of India was also apprehensive of the upcoming International Sanitary Conference to be held at Venice in 1897 as the European governments could decide to further increase the restrictions placed on Indian vessels.[16]

Apart from the imposition of quarantine regulations against arrivals from India, the restrictions on the export of goods and merchandise posed an imminent risk to the trading interests of both India and Britain. George Hamilton, the Secretary of State for India voiced his concerns regarding the impact of the plague on India's interest to the Governor General of India in Council:

> The alarm caused by the plague in India and elsewhere is greater than might have been expected to result from this mortality, one-third of the population of Bombay are said to have left the city; trade and manufactures have been arrested; European and African harbours have declined to admit vessels, passengers, and goods from the infected ports of Bombay and Karachi; and Russia has notified that all India must be treated as contaminated by plague. Not only is there risk of the epidemic spreading to other cities and provinces of India, where millions of people are congregated on relief works and at poor-houses, but for the time a serious injury has been done to India's export trade.[19(p100)]

Restrictions on the export of raw hides and skins from India to France, Italy, and Germany had disastrous effects on India's trade. Restrictions were placed on merchandise and goods as they were considered contagious in nature and 'were capable of carrying the plague'.[13(p182)] The total seaborne trade of India in private merchandise declined for the years 1896–97 and 1897–98, particularly in the Asian region (Table I).

The transmission of plague via Mecca pilgrims from India was perceived as a major risk by the European authorities. Pilgrimage to Mecca was already a contentious issue in the International Sanitary Conferences after the outbreak of cholera in Mecca (1865) and its transmission to the European continent.[38] This issue was discussed in sanitary conferences held since the Constantinople Sanitary Conference of 1866.[39] In a telegram dated 14 January 1897, the Secretary of State raised concerns shared by other countries regarding pilgrimage to the Viceroy of India. He stated that Russia was pressurizing the British government to prohibit pilgrimage from India for the year 1897; also, the fears of Russia regarding pilgrimage were also shared by the Austrian government. He further highlighted the unsuitability of Bombay as a port of departure for the pilgrims.[19]

The issue of pilgrimage also highlighted the friction between the provincial governments and the imperial government. The port of Bombay was closed for pilgrimage but the governments of Calcutta and Madras were requested to keep their ports open for the purpose of pilgrimage. The Government of Madras was vehemently against the shifting of the pilgrim traffic to Madras due to the fear of infection reaching the province through pilgrims arriving from different regions.[19] *Shams-ul Akbar* reported that strong protests were registered by the Madras government, the Madras Municipality, the Chamber of Commerce, the Harbour Trust Board, the Trades Association, and the Mahajana Sabha against the use of Madras port as the harbour for pilgrim traffic.[40] This issue was also raised by Joy Gobind Law in the discussion of the Council for the EDA bill.[41] Due to its traditional policy of non-interference in religious matters, the government was initially reluctant to put a ban on the pilgrimage but later prohibited the pilgrimage for the whole year.[16] The government was under immense pressure as the issue of pilgrimage would have posed an imminent risk to India's trade interest in the upcoming Venice Sanitary Conference of 1897. The eventual ban on pilgrimage and the rigorous medical inspection employed by India was appreciated in the Venice Sanitary Conference and the government was able to avoid drastic measures such as trade embargoes and quarantine against its commerce.[16]

TABLE I. India's total seaborne trade in private merchandise between 1894 and 1904 in crores of rupees (Note 8)

Continent	1894–95	1895–96	1896–97	1897–98	1898–99	1899–1900	1900–01	1901–02	1902–03	1903–04
Europe	120.51	122.36	116.85	109.07	117.64	114.08	120.35	130.70	131.15	157.37
Asia	37.38	40.34	38.46	37.71	40.47	42.06	39.42	49.42	48.32	55.70
America	8.89	8.48	7.94	9.19	8.28	10.71	10.06	11.60	12.04	13.38
Africa	10.62	10.93	10.80	9.25	13.08	10.79	11.11	11.49	14.15	8.79
Australia	1.57	1.45	1.64	1.57	1.61	2.03	2.69	2.70	1.92	2.52
Total	178.98	183.57	175.70	166.80	181.10	179.68	183.64	205.93	207.60	237.78

Source: Statistical abstract relating to British India from 1894–95 to 1903–04[37]

The quarantine restrictions, international pressures encountered by the imperial government, the threat to India's commercial interests, and the transmission of plague to other parts of the country led to the adoption of stringent measures despite protests from the local population. Bombay, being a major port as well as a commercial city, was connected internationally with major ports and domestically with interior regions of India through a vast network of railways. The Government of India imposed quarantine measures at the port of Madras (now Chennai), Calcutta (now Kolkata), Karachi and Rangoon (now Yangon) against the vessels arriving from Bombay. These measures were also used to satisfy international concerns regarding India's effort to control the transmission of the plague.[14] For the British authorities, the unrest and riots which erupted as a result of the extreme measures highlighted the lack of laws to deal with such events. On 28 November 1896, the *British Medical Journal* commented on the lack of general laws on riots and disturbances which arose as a result of the segregation policies: 'It would appear that there are no General Laws for India in connection with this subject, and the local authorities have no rules to guide them in their dealing with the matter now in hand.'[42(p1606)]

The differing attitudes of the British government regarding quarantine policies within India faced criticisms from the delegates of European countries at International Sanitary Conferences. Sandhya Polu in her work highlighted the lack of a legislative framework in India that was in congruence with the regulations of International Sanitary Conferences. She argued that 'India needed a domestic counterpart to the International Sanitary Conventions'.[16(p43)] In a despatch to the Secretary of State for India, Viceroy Elgin summarized the pressures that necessitated the adoption of special legislation to control the plague:

> The situation appeared to us to be of such gravity. having regard to the high mortality, the persistence of the disease in Bombay and Karachi, the apprehension that it might spread and become endemic in other places, the injury that was resulting to the trade of the places affected and the country at large, and the fear that foreign powers might introduce regulations and restrictions disastrous to the commerce of the country, that we considered it necessary to take special powers by legislation, with a view to prevent the spread of, and to suppress the plague, and to guard against infected vessels leaving our ports.[19(p79)]

Adoption of the EDA

A bill (No. I) titled 'A Bill to Provide for the better prevention of the spread of Dangerous Epidemic Disease' was introduced by Sir John Woodburn on 28 January 1897 in the Council of the Governor General of India.[41(p14)] The bill was further referred to the Select Committee composed of Sir John Woodburn, Sir James Westland, M.D. Chalmers, P. Playfair, R.M. Sayani, and Joy Gobind Law; the committee was instructed to report it at the next meeting of the Council. The Medical Board of Calcutta and the Government of Bombay gave certain criticisms and suggestions which were incorporated by the Select Committee in the amendment of the bill. The report of the Select Committee was presented to the Council on 4 February 1897.[41]

Woodburn, while introducing the report in the Council, commented that there were almost negligible suggestions from the non-official bodies and he assumed that the public supported the bill based on the remarks from the press. The discussion of the Council members centred around the passage of the bill and suggestions of the public, the extent of the powers provided in the bill, the pilgrimage to Mecca, policies of segregation, and the response of people. Sayani (Note 9) observed that the bill was hurriedly passed and in ordinary circumstances, general public opinion would have been taken into consideration but plague presented extraordinary circumstances. He stated that under such circumstances the role of the Council was to 'grant to Government what they ask for and to leave to Government the responsibility'.[41(p24)] The Maharaja of Darbhanga remarked that an early introduction of the bill would have provided an opportunity to consider the inputs and suggestions of non-official bodies. Emphasizing the need for enlisting public support for the bill, he said: 'Supported by popular feelings the sanitarian may achieve great results, but he is doomed to failure if he has to work in the teeth of polar opposition.'[41(p28)] The Lieutenant Governor of Calcutta also wished for an earlier introduction of the bill but for different reasons. He pointed out that the existing laws were insufficient to deal with the plague in Calcutta had it broken out the same way it did in Bombay. He also said that in the absence of a law such as the EDA, he would have been compelled to introduce special legislation to empower the Medical Board and quell the spread of plague in Calcutta, had it broken out. Responding to the Maharaja of Darbhanga, Chalmers sympathized with the Maharaja's concern and argued that the bill was deliberately kept vague as it did not take public inputs into account. He reasoned that the bill rather empowered the local governments to make specific regulations to tackle any epidemic, and provided the local governments a space to take people's inputs and suggestions into account if they so wished. Woodburn also responded to the complaints of the Lieutenant Governor and the Maharaja of Darbhanga and stated that the Government of India did not introduce the legislation earlier because it was under the impression that the plague would be confined to a limited region as happened in the case of Hong Kong.[41]

The issue of segregation was discussed among the members of the Council with Rai Bahadur Ananda Charlu moving an amendment in clause 2, sub-clause (2), paragraph (b) to insert 'temporary accommodation' between 'in hospital' and 'or otherwise'.[41(p26)] He believed that even as the word 'otherwise' was vague enough to allow multiple interpretations, an explicit mention of 'temporary accommodation' would assuage public fears. Pandit Bisambhar Nath supported the amendment. Drawing from his understanding of North-Western Provinces and Oudh, he believed that policies of segregation and isolation would create panic and fear, especially among Muslims who subscribed to the practice of purdah. He went beyond Ananda Charlu's amendment and suggested:

> where segregation is to be enforced as a precautionary measure, the people affected by disease may not be forcibly removed to hospitals, but that camps provided by the people or the community concerned may be allowed to be used for the exercise of the measure. That will afford some relief to the people, and they will not then regard this measure, which is indeed a beneficial one, as one calculated to excite too much needless terror.[41(p35)]

Woodburn expressed no objection to Ananda Charlu's amendment, which was subsequently included in the final bill that was passed. Although not commenting directly on the amendment, Lieutenant Governor contributed to the discussion on segregation. He emphasized the critical importance of segregation in quelling the plague but qualified it with respect for 'Oriental decorum' (Note 10).

The pilgrimage to Mecca was an important point for discussion in the Council. Joy Gobind Law called the pilgrimage a 'danger' which required 'drastic remedies', including the prohibition of pilgrimage from Madras and Calcutta.[41(p24)] Sympathizing with Joy Gobind Law's view, the Lieutenant Governor called for complete prohibition of pilgrimage. If not, then he suggested a mechanism for observing and quarantining the pilgrims for a certain number of days before letting them embark on the pilgrimage. Woodburn reiterated the government's traditional position of non-interference in religious matters. Instead of advocating a complete prohibition, he considered distinguishing pilgrims from affected areas and non-affected areas as a more reasonable response. Sayani considered the matter of pilgrimage as 'delicate' as it was a religious duty to perform the pilgrimage. He further added that pilgrimage should only be undertaken if the individual has sufficient means to support himself and his family for the course of voyage. He also invoked the traditional law which stated that an individual should refrain from undertaking the voyage if plague is persisting either in the place of origin or destination.[41]

In view of the vagueness of the sections of the bill and the excessive powers vested in the Central and provincial governments, the members of the Council justified the same by citing the 'extraordinary circumstances'.[41] Sayani, exemplifying the fears posed by the plague, commented that the government needed to safeguard the country to prevent human suffering, the collapse of commerce, and the 'excommunication of India from the commercial union of the world'.[41(p25)] The fear of the spread of plague in other parts of the country, its impact on commerce, and the ineffectiveness of the plague preventive measures constituted the 'extraordinary circumstances' and the bill was hurriedly passed on 4 February 1897, which brought into force the Act No. III of 1897 titled 'The Epidemic Diseases Act'.[41]

The EDA had four sections which provided the government extraordinary powers to control the spread of the plague. The first section had three sub-sections which provided the title and the extent of the Act. The Act extended to the whole of British India and included the regions of Upper Burma, British Baluchistan, Santal Parganas and the Pargana of Spiti.

The second section of the Act defined the powers of the Governor General in Council to take special measures and prescribe regulations to control dangerous epidemic diseases and was divided into three sub-sections. The first sub-section empowered the Governor General in Council to take measures in the event of an outbreak of dangerous diseases if he considered the ordinary provisions insufficient; he could 'empower any person to take such measures' and 'prescribe such temporary regulations to be observed by the public or by any persons or class of persons as he shall deem necessary to prevent the outbreak of such disease'.[41(p39)] This sub-section was based on Section 434 of the Bombay Municipal Act.[19] The second sub-section outlined the measures and regulations for traffic on both land and sea. Clause (a) empowered the government to inspect any vessel that arrived or left the port of British India as well as the detention of any vessel or person intending to sail or arrive if considered necessary. The provisions under clause (a) were instituted for the protection of the Indian ports from infection and also the protection of commercial interests abroad by ensuring that vessels leaving Indian ports were not a source of infection or danger. Clause (b) empowered the inspecting officer to inspect the persons traveling by railway or otherwise, segregate travellers in hospital, temporary accommodation, or otherwise if they were suspected to be infected with any disease. The third sub-section empowered the local governments (with respect to territories administered by them) to exercise any or all powers conferred under the Act by any general or special order by the Governor General in Council.[41]

The third section penalized (under Section 188 of the Indian Penal Code) any person for disobeying any regulation or order made under the Act. The fourth section protected a person from any legal proceedings intended or done in good faith under this Act.[41]

The vernacular newspapers from the Bombay Presidency and the Punjab and Central provinces, while highlighting the importance of the adoption of an Act such as the EDA, provided certain criticisms regarding the difficulties that could have arisen due to inspection, segregation, and the abuse of power. *Gujàrati* flagged the need for inspecting officers to treat all classes of railway passengers—especially women—courteously as well as asked the government to learn from the blunders of complete segregation in Bombay while instituting new rules under the EDA. Directly addressing Woodburn's stated reasoning in the Council for a delayed introduction of the bill, *Gujàrati* pointed out that the government was already aware of the spread of plague in Karachi, and therefore, Woodburn's explanation was not convincing.[43] The *Mumbai Vaibhav* focused on the issue of house inspection and demolition although not critical of the demolition policy per se, the newspaper did flag two crucial points: first, delegation of the discretion of demolition decision to subordinates would result in the oppression of the people; second, the demolition and burning of insanitary huts should not be indiscriminate.[44] Similar sentiments were earlier echoed by Ananda Charlu in the Council; he had commented that inspectors 'must be men who have something to lose in the way of reputation or status'.[41(p27)] The *Deshi Mitra* was critical of medical inspection of passengers at night and suggested that the inspection be done at destination stations as opposed to some central stations.[45] *Paisa Akhbar* was also deeply critical of the Act and remarked that the dangerous Act would cause great inconvenience to the railway passengers especially the third class passengers. It was also critical of the unlimited powers which could result in the abuse of authority.[46]

Deeply critical of the rules framed under the EDA, *Subodh Sindhu* flagged issues such as forceful segregation, oppressive and whimsical destruction of properties of suspected plague cases and injury to religion so much so that people preferred death from plague instead of conforming with the rules.[47] The editor of *Paisa Akhbar* highlighted that he received several letters complaining about the prevalence of rampant corruption in the form of bribes to inspectors.[48] Criticizing the Act, *Lahore Punch* commented that the new Act brought great miseries on the local population and these miseries surpassed the pain brought by the famine and the plague together.[49]

CONCLUSION

We have focused on the international and domestic factors that necessitated the adoption of the EDA. The legislative framework

that governed the infectious diseases policy before the adoption of the EDA (1897) proved insufficient in controlling the spread of the plague. Certain regulations promulgated by the colonial administration were outside the scope of these laws (Indian Railways Act of 1890 and Act I of 1870). Similarly, legislations such as the Bombay Municipal Act of 1888 and the Calcutta Municipal Consolidation Act of 1888 were also insufficient in controlling the spread of the plague. The increasingly complex network of trade resulted in interrelated commercial interests of Europe with the rest of the globe. The fear of the spread of the plague in the European continent and its adverse impact on commercial interests led to severe quarantine measures against the major ports of British India. Along with this, the upcoming Venice International Sanitary Conference of 1897 pressured the Indian government to control the transmission of plague from Indian ports to foreign countries to avoid further sanctions against its ports. The lack of laws that were a 'domestic counterpart' to the regulations of International Sanitary Conferences in British India,[16(p43)] also led to the adoption of the EDA. Despite the discontentment regarding the stringent regulations and the scope of the power conferred by the Act on the Government of India, its adoption reflected the strong international pressures on the colonial administration. The rapid transmission of plague from Bombay to other parts of the country, rising mortality rates, loss in trade, and growing discontent among the domestic population due to preventive measures led to the hurried passage of the bill.

Conflicts of interest. None declared

NOTES

1. International Sanitary Conferences were a series of fourteen conferences held between 1851 and 1938 to prevent the spread of cholera, yellow fever and plague. It aimed at the creation of standard quarantine regulations against these diseases. In the first International Sanitary Conference (1851), 11 European states and Turkey participated; they were represented by two delegates (a physician and a diplomat) from each participating country. Since there was no clarity on the aetiology and prophylactic measures for these diseases, it was difficult to reach an agreement. The first four decades (six conferences) produced no tangible results; the Dresden Conference of 1893 (the eighth conference) was ratified by 11 countries in 1897. The international health cooperation which emerged as a result of these conferences culminated in the Pan American Sanitary Bureau, the Office International d'Hygiene Publique and the Health Organization of the League of Nations. The International Sanitary Conferences served as the predecessor of the WHO.[38,50–53]
2. Plague has reached pandemic proportions three times—The Justinianic plague (541 CE), the Black Death (1347 CE) and the Third Plague Pandemic (1894 CE)—and killed millions of people throughout the world.
3. The first official case in Bombay was detected by Dr Viegas, a Bombay Municipal Standing Committee member. Although, P.C.H. Snow (then Municipal Commissioner of Bombay) in his report points out that plague was already present in the month of August 1896.
4. P.C.H. Snow's report 'On the Outbreak of Bubonic Plague in Bombay 1896–97' outlined two possible theories regarding the transmission of the plague in the Indian subcontinent.[22] He states that some contended that it was brought by the pilgrims from certain villages in the Himalayan ranges where the plague was already endemic in nature. Others argued that the plague infection reached the shores of Bombay via Hong Kong as the two ports had blooming trade relations and it was brought by either humans or rats. The appearance of plague in the district of Mandvi lent credence to this theory.
5. On public attitude towards government measures, Snow captured it in the following manner: 'Let us alone to die, but do not interfere with our customs or prejudice which are far more important than any danger from the plague.'[22(p6)]
6. The rumour that the sick were deliberately killed in the Infectious Diseases Hospital at Arthur Road provoked the workers towards violent action.
7. The bill being referred to here is: 'A Bill to provide for the better prevention of the spread of Dangerous Epidemic Disease', which later became the EDA.
8. The total seaborne trade in the table includes exports, imports and the re-exports of private merchandise. In the original data, entries for the period 1894 to 1898 are in tens of rupees, and from 1898 to 1904 are in British Pound (or Sovereign or simply £). In the adapted table, all the entries for 1894 to 1898 period (four columns) are multiplied by 10 (as original entries are in tens of rupees) while the rest of the columns (six columns covering 1898 to 1904) are multiplied by 15 (because according to historical references, the exchange rate of rupee and pound was: 1 £ equals to 15 rupees.[54,55]
9. Rahimtulla M. Sayani (1847–1902) served as the president of the 12th annual session of the Indian National Congress (Calcutta) in 1896. He served in the Bombay Legislative Council during 1880–90 and 1894–96. He served in the Imperial Legislative Council during 1896–98.
10. The Lieutenant Governor suggested a few ways through which segregation could be put in place without infringing on Oriental decorum, that is, customs and prejudices of the 'natives'.

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