

Cyclone and Administrative Challenges: A Critique Review on Government Policies on Relief Work During Natural Disaster, 1864-1876

Debarshi Roy

Ph.D. Research Scholar in History, University of Kalyani

Lab Mahato

SRE, Ph.D. Research Scholar, University of Kalyani

Abstract: *Natural hazards are generally considered within a physical or social context, while natural disaster implies the dynamic impact of large amounts of damage, destruction to property, and other infrastructures, and severe loss of human lives, cattle, crops and social development. Coastal Bengal is a most vulnerable area because of its repeated exposure to cyclones which cause severe damage to crops and commodities. This article focuses on the occurrences, spread and effects of the cyclones that originated in the 1860s and 1870s in the Bay of Bengal. These natural disasters put the process of development back several years in the affected areas. The greatest sufferers are economically and socially disadvantaged members of the community.*

Keywords: Cyclone, Colonial Bengal, Environment, Human, Cattle.

The present topic contextualizes on the backdrop of the British as an alien ruler of colonial Bengal faced administrative challenges during the event of Natural disaster. C. A. Bayly and Bernard Cohn have also brilliantly analysed the process of collection of 'information' and 'knowledge' which played a crucial role in consolidating the position of the British in India by increasing their 'power' to retain their 'control' over the oriental society.¹ During the second half of the nineteenth century, cyclonic appearances in Bengal became more frequent than the earlier times. After the first half of the nineteenth century a major discontent developed among the people against British rule. The inadequate rehabilitation programs rather increased anti-British sentiment. Whichever was a civilized ruler, the relief and rehabilitation work had a connection with its moral foundation.

The historic evaluation of natural disasters, such as floods, earthquakes, cyclones, drought, landslides, etc. structure one of the important segments of the historical reconstruction of human previous and these problems are

additionally increasingly coming to be recognised, with their regional and nearby variations. In recent times cyclones have attracted great attention from environmental historians. The cyclonic visitations produced tremendous distress in the society and economy which obtained deadly blows in the form of loss of human life, cattle and crops. The cyclone caused a great number of deaths for both humans and cattle, which were either blown away or drowned by the cyclone and floods.

Cyclonology and Colonialism

Tirthankar Ghosh in his essay, 'Historicizing Earthquake and Cyclones: Evolution of Geology and 'Cyclonology' in Colonial India', discussed cyclonology and its connection to colonialism. The disastrous result of the cyclone of 1864 in the Bay of Bengal, forced the colonial rulers to pay attention to the necessity of serious investigation of weather forecasts.² Speaking of natural disasters in colonial Bengal, the cyclone has always been the principal reason for destruction ever since it was recorded in Bengal in 1737.³ The first ever recorded cyclone of 1737 left an eminent danger on the economy as well as social lives of the Bengal province by killing 300,000 people at once. Major studies have revealed that in colonial India, the rebuilding of the economy following natural disasters greatly depended on the market and its flourishing of trade. To this contrast, this paper will contribute to the field by discussing the cyclone and its impact on the colonial economy of Bengal in general; damaged goods, crops and floods in particular. Because its agriculture has been the primary backbone of the then colonial economy, as David Arnold himself emphasized, "... there was dominant colonial ideology to restrict India as 'primarily a site for agricultural production'".⁴ Further, it tries to understand the mode of colonial taxation, production and labour migration that happened due to this devastating natural calamity.

Cyclones and Its Impact on Livelihood

At the twenty years of span four major cyclones hit on the delta of Bengal. It heavily affected the livelihood of the people. Four severe cyclones occurred in the Bay of Bengal between 1864 and 1874 and these occurred in October 1864, November 1867, September 1872 and October 1874, which not only caused great loss of life and property but contributed to the emergence of significant meteorological research which included a great deal of literature on cyclonological discourses.⁵ The 1864 Cyclone fell in the Calcutta and its suburbs on November 5. The destruction of the cyclone was witnessed in several districts. The number of people killed in Howrah was 1978. Apart from that the total value of product damaged in the districts was rupees of 60,49,831. But the effect of the cyclone was worst in Midnapore where the number of casualties was 20,065. The one-fourth of the crop was damaged by waterlogging.⁶ It created a scarcity of food in the districts. Mr. Payne a mission worker of the 24 parganas concluded that near the river areas of one mile the average destruction of life was 80 per cent.⁷

The Bengal Government assisted Rs. 5000 to the local government and rice supplied to the Diamond Harbour, Atcheepur, Dabeepore. The number of people relieved by the relief program in the district was 11,864.⁸ Whereas Cyclones which originated in 1867 in the Bay of Bengal and travelled to the southern and northern parts of Bengal and their influence on society and economy of Bengal, and at the same time questions the very mindset of the colonial authorities in accumulating and documenting statistics for the cyclonic activities which had been supplied with ambiguous information and interpretations. An extreme storm swept over a considerable portion of the Lower Provinces in the course of the night time of the 1st and the morning of the 2nd November 1867 and induced great loss of life and property, particularly in Calcutta and the neighbouring districts. The storm had its origin apparently at some point in the north-east portion of the Bay of Bengal, and the centre of it was ascertained to have passed from the mouth of the Mutlah over Port Canning and Busseerhaut, and thence in a N.N.E. direction to the east of Comercolly and the west of Serajgunge⁹. "The centre of the storm having traversed the country stretching nearly due east from Calcutta to Basirhat on the Ichamati river. In this line, many villages were blown down wholesale, and their destruction was accompanied by much loss of human life. Baruipur, Diamond Harbour, Atharabanka, Basirhat, Gobardanga and Satkhira had suffered severely. The storm-wave beginning from Saugor Island extended a very great distance to the extreme east of the district of 24 Parganas, and in the Kulpotton and Kobadak rivers, the water rose to 6 feet above the flood level. The storm was severely felt in Jessore and Nadia and as far as Dacca and Backergunge."¹⁰

The worst affected section of Bengal by using the capacity of the cyclone was once as soon as the districts of Presidency Division (e.g. 24 Parganas, Jessore and Nuddea) the area loss and destruction in phrases of life, cattle and houses have amounted to most (total extensive range of loss of life, cattle and destroyed houses had been 3,934; 60,609; and 8,12,403 respectively in the three districts) and a large damage used to be completed to the vegetation.¹¹ There can be no question that much of the 24-Pergunnahs has suffered incomparably more severely than the rest of the Division. The whole force of the storm appears to have attacked a line of country stretching nearly due east from Calcutta to Basirhat on the Ichamati River. Through that tract, much of which is very populous and very great. Villages blew down wholesale and human life was sadly lost. Statistics I cannot yet give, but in more than one Police Station more than 200 deaths are said to be reported. To the north and south of this line man, cattle and houses have not suffered much more than in the rest of the Division.¹² In this many villages have been blown down wholesale, and their destruction used to be accompanied with the aid of a good deal of loss of human life, the extra populous locations which suffered severely being Baruipore, Diamond Harbour, Atharabanka, Busseerhaut, Goberdanga, and Satkhirah. The storm wave commencing from Saugor Island prolonged a very exceptional distance to the east of the district, and in the Culpotton and

Cobaduck rivers, the water rose to 6 toes above the flood level.

In Jessore additionally, the storm was once very violent, and the loss of property- mainly of construction very extensive. The component of the district which suffered most used to be that mendacity to the northeast. In Nuddea the gale used to be scarcely much less violent than in Jessore the eastern parts of the district struggling most Bongong, Ranaghat, and Kooshtea. It needed to be mentioned briefly that by definition a 'gale' indicates a strong wind blowing in with tolerable steadiness from one-quarter of the compass; whereas a hurricane, namely, is a violent wind blowing in a circle or vortex of greater or less diameter.¹³

Table-1
Loss of life, cattle and houses in the southern districts of Bengal

Districts	Loss of Life	Loss of Cattle	Destruction of Houses	
			Kutchha	Pucca
24 Parganas	3,628	36,318	409847	207
Jessore	126	11,735	274395	37
Nuddea	180	12,556	127814	103
Total	3,934	60,609	812056	347

Source: Amiya Kumar Bagchi and Arun Bandopadhyay (eds.), *Documents on Economic History of British Rule in India, 1858-1947: Eastern India in the Late Nineteenth Century, Part I: 1860s-1870s*, p. 98.

The above description has outlined the critical condition of the economic lives of Colonial Bengal due to the loss of life and destruction of crops, houses and property. Nevertheless, the colonial authority did influence the resource distribution in these hours of urgent need. In the context of Bangladesh in recent years Sharmin Afroz, Rob Cramb and Clemens Grünbühel have argued that the root causes of vulnerability are embedded in the socio-political structures and processes that determine access to resources and influence in Bangladeshi society. As has been pointed out above description that a large number of houses were unroofed and demolished by the violent spread of the cyclone, and the economic life of the poorer section came on the verge of catastrophic disaster. To this, it is argued that labour became scarce as their recovery required a considerable period and money. Even though some amount of benefit was achieved due to the sufficient rainfall in specific areas for certain crops, however, large-scale destruction of crops and stored grain also resulted from the severe forces of the storm. The cyclone had brought about a huge quantity of water with it in the form of rain that caused serious inundations which ultimately brought about floods. Here it needs to be mentioned that the first ever rainfall map appeared in the year 1840, before that there has not been any such thing to locate such rainfalls in such specific areas.¹⁴ Therefore, now and then the large-scale spread of water covered the

agricultural field under water, which was sometimes considered by the Collectors and other officials as beneficial to the standing crops or for the future crops. On the other hand, it had been already observed that floods had destroyed a considerable number of standing crops and stored grain. Damages to the houses and property provided a serious blow to the poor inhabitants of the region. However, there was widespread ambiguity and confusion in the official circle about the exact amount of loss of property and houses suffered by the victims as the cost of the destructive cyclone. Damages to bridges and embankments provided a lasting blow to the overall pattern of water systems and irrigation which collapsed as a result of excessive floods and inundations.¹⁵

The only other districts which suffered to a very extensive extent have been Howrah, Hooghly and Midnapore in the Burdwan Division and Noakhally in the Chittagong Division. The loss of existence and Property in these districts is mentioned on the margin. In Howrah, the storm was once felt nearly as severely as Calcutta, and in the Botanical Gardens, remarkable harm was once completed to the bushes and plants, as has been observed underneath the head of Agriculture. In the Hooghly district, the storm used to be especially robust at Baidyabatty, Serampore and Hooghly the pressure of the wind extending inland to about 10 miles alongside and parallel to the river. In the eastern element of Midnapore, the gale was once very robust, particularly at Tumlook, Doro, Mysadul and different regions and a remarkable many boats had been misplaced at the mouth of the Russoolpore River. In Noakhally the loss of cattle aggregated 3168.¹⁶

Table-2

Loss of life and houses in the districts of Howrah, Hooghly, Midnapore and Noakhally

Districts	Loss of Life	Loss of Houses
Howrah	78	9553
Hooghly	24	1309
Midnapore	21	(Not stated)
Noakhally	14	178

Source: *Annual Report of the Administration of the Bengal Presidency*, The Bengal Secretariat Office, Calcutta, 1867-68, pp. 222.

The results of the gale in the different districts do not require to be especially noticed. The storm no longer extended to any district of the Patna and Bhaugulpore Divisions nor the Santhal Pargunnahs and the district of the Chota Nagpore Division. It was once additionally no longer felt in the route of Darjeeling and the Western Dooars place there was once only rain accompanied using strong wind not approaching a gale. In all the massive open rivers a vast wide variety of boats had been misplaced collectively

with their cargoes, and an exact deal of harm was once finished to the plants in some districts, in particular in these of the Presidency Division.

That has an effect on the cyclone in the district of Rajshahi used to be combined with heavy harm and small-scale destruction in distinct components of the district. The Deputy Collector of Rajshahi district had initiated enquiries about the extent of injury in the nation-state of the district. The harm carried out by way of the storm had been vast in quite a few components of the Rajshahi town, many mat homes had fallen and severe fruit timber had been injured. The cyclone had regarded in the district of Pabna with information of loss of lifestyles of girls due to the falling of her residence and at "Sirajganj lives had been lost, (one from exposure) whilst at the Sudder one or two instances have been on my own heard of."¹⁷ There used to be large damage that had been accomplished to property, in all places thatched homes and huts have substantially suffered, scarcely one somewhere escaping from damage, and more than half of having been blown down.¹⁸ The best loss in property had been sustained through retailers and others, who had been forwarding items via rivers to different parts. Hardly any boat of any form was once in a position in the large rivers to trip out so extreme gale, and the boatmen had saved their very own lives using forsaking their boats.¹⁹

The 1874 Bengal cyclone caused severe floods in many districts of Bengal province and killed over eighty thousand people at a time. It made a landfall over the areas of Balasore in Orissa. As per the colonial report, no damages were made by this storm at the initial stage of landfall. The later stage of the cyclone caused severe damage to Midnapore and its adjacent areas. Crop fields and houses near coastal areas were ruined by the storm. The later stage of this cyclone also damaged many Parganas of the northern Balasore area in Orissa. The colonial government suspended the collection of the revenue of these areas after this disaster. Not only the coastal areas, the effect of this cyclone was observed in Burdwan also. The tower of a church and many houses have been blown down. In Birbhoom and Bankura rice fields along with the fields of minor crops were damaged.

The storm initially hit the areas of Balasore and Orissa. It was reported that 'no damage was done in this neighbourhood except a few walls undermined by the heavy driving rain... there it was more of a heavy rainstorm than anything else. At Jajepore it was simply bad weather.' It was recorded that no trees were overturned. No houses unroofed. The storm therefore was not heavy. In the centre of the district, the only damage done was the spoiling of the rice crop in flower at the time, and the threshing out of that which was ripe. Both these crops are fortunately insignificant in extent and the main crop remains uninjured. The only portion of the district falling within the direct track of the cyclone was the two northernmost police station jurisdictions of Baliapal and Jellasore, excepting the Futiabad pergunnah on the west of the Sooburnrekha, where trees and houses have suffered damage but not of a severe character. In Baliapal and Jellasar, the ravages of the storm have been almost indescribably disastrous. It is

unanimously described as having raged in its intensity from noon till midnight.²⁰

In Burdwan, the damage done in the town was very great indeed. The tower of the church, the portico of the Maharajah palace, and a very large number of kutchahouses, had been blown down. Thatched houses were enraged very generally, and some of the Government offices and European houses, including the Circuit Houses, have lost doors and windows. The telegraph posts had been blown down in all directions.²¹ A number of large trees forming the avenue along the Grand Trunk Road from the cutheries to the church and race-course had been blown down. Several native thatched huts in exposed places were blown down, but the houses in the town of Burdwan suffered to a lesser degree as they protected one another. The Dilkoosha palace and menagerie also suffered and a large tree fell across one of the bear pits four small bears escaped and added to the terrors of the villages.²² The earthen embankment that connected the masonry at the Banka anicut with the side of the *nulla* was carried away, as it was apprehended, but the masonry of the work stood in a manner which does credit to the contractor who built it. The flood in the Banka has completely subsided.²³

The cyclone of 1874 had an adverse effect on the district of Midnapore. In the district of Midnapore, the injury done to the trees and buildings in the town had been properly attended to by the removal of fallen trees and houses. Large quantities of grain had been destroyed by submersion, and 'Government food-relief was urgently called for.' At Baliaghya bazaar a few shops were swamped by the rising of the watercourse and thousands of maunds of rice damaged, but this grain had all been collected for exportation, and the loss of paddy and rice which may have been intended for local consumption has not exceeded at the outside 2 per cent. From Chandra outpost the sub-inspector reported that—"Chandra outpost, where the cyclone was not felt, about 14 annas, or about seven-eighths, of the mud-built houses [had] been blown down."²⁴ The loss of stored grain was estimated at between one-fourth and half of the stock. The sugarcane was reported to have been much injured and the canal had been somewhat damaged.

Cyclone of 1876 and Government Refusal on Relief Program

The gruesomeness of the 1876 cyclone was more than the previous three cyclones. It hit the parts of lower Bengal particularly in the Dacca, Noakhali, and Bakargunge regions on 31 October 1876. Sir Richard Temple, the Lieutenant governor of Bengal inspected the affected areas by touring on the boat. He arrived at Noakhali on November 7 and was instructed for a relief and rehabilitation program. Five large boats arranged for the supply of food. The next morning, a rumour had been spread that the Governor had come to rescue the people. The destitute were assembled at Noakhali station. But the Governor's visits to the coastal area were a pre-plan tour. It was not initiated for investigation of affected areas. After visiting the flood

areas, he concluded that 'people recovering their own, there was no sign of hunger, and at every homestead dried up crops'. He argued that the Government's role in the relief program was minimal. Earlier during the famine of 1874, he refused to remission on land tax. He was a believer in free market relief policy. The negligence of the Government for rehabilitation, and the endurance of the colonial rule had dried up among the people.²⁵

Cyclone and Social Responses

While observing the history of human civilizations throughout the ages, we can find several instances of natural disasters, which severely affected contemporary societies. Hence, the field of 'disaster study' is an unavoidable component of history. Through the lens of history, disasters can be interpreted from various perspectives. Not only the effect but also the response of the society to the change of their familiar environment can be traced through historical references. The historical records of the disasters help us to reconstruct and understand the social, economic and cultural changes that occurred within the society. Scholars have tried to explain the multifaceted impact of disasters for ages. According to historians, the disaster study acts as the spatiotemporal bridge between past events and structural understandings. They have explained the close relation between the rise of political power and these natural hazards. As a result of successful prevention of the natural calamities rulers became popular within the society. Hence, gradually natural disasters became synonymous with the 'rule of experts. Throughout the world, we can find many origin myths, which start with a description of a mega-disaster.

Many regions of the Indian subcontinent carry a prolonged history of natural disasters, that affected the lives of the inhabitants of respective regions in many ways. Hence, meteorological studies became an important 'tool' in order to control the economy of the Indian subcontinent. Tirthankar Roy has attempted to portray a picture of the socio-economic history of the disasters in the Indian context. He has linked the experience of the disasters with the gradual growth of knowledge of combating the damages caused by these natural calamities. Among the disasters, cyclones are one of the most destructive ones. The Bay of Bengal is considered one of the major tropical basins that produce six percent of the global total rate of cyclones annually.²⁶

Bengal suffered more natural calamities in the 1870s. The repeatable famine troubled the life of the poor. In such dreadful events of life, people wished for more assistance from the Government. The damages at Chittagong were huge in the cyclone of 1876. More than 170 cultivators petitioned the local government on November 7 for a relief program. But in reply stated 'it was too early to discuss relief'. More than 215,000 people died in the cyclone of 1876 but the Government only expensed Rs. 22,023 for relief work. 'The Bengalee', a Calcutta-based newspaper unhappy with the relief work argued the amount of money spent on relief was five times less than actual needs.²⁷ Apart from the Government's refusal of assistance, local

zamindars are also silent on rehabilitative programs. The ryots were Muslims and their selfish and quarrelsome attitude was not like by the landlords. The cruelty of the zamindars during such catastrophic events, there was an anti-Hindu and upper castes resentment arose among the marginal Muslims. On the other hand, the acceptance of the Christian missionaries grew by relief work. Over Rs. 3000 dollars collected in Britain for the relief work in Eastern Bengal.²⁸

Cyclone and Maritime Sailor Safety Management and Trade

During the colonial period in Bengal (1864-1876), maritime trade faced significant challenges due to cyclones and natural hazards. In 1839, Henry Piddington in his research on the gale and hurricane in the Bay of Bengal on the 3rd, 4th and 5th of June, 1839; was his first memoir concerning the theory of the Law of Storms in India.²⁹ However, the East India Company and later colonial administrations developed some safety measures for sailors, including improved weather forecasting, port regulations during storms, and building sturdier ships. However, despite these efforts, sailor safety remained a concern due to the unpredictability of cyclones and the limited technological advancements available at that time. Many ships were lost, leading to a continuous struggle to balance maritime trade with the safety of sailors amidst the forces of nature. The region's reliance on sea routes made ships vulnerable to these elements. To manage sailor safety, various measures were attempted, such as improved navigation techniques, establishing storm shelters, and enforcing regulations during inclement weather. However, the unpredictable nature of cyclones made it difficult to guarantee the safety of sailors and vessels, resulting in significant losses and ongoing efforts to find better solutions to protect both trade interests and the lives of sailors.

The colonial government of Bengal took some measures to look after the well-being of maritime trade sailors during the later nineteenth century. In this case, Piddington's research and advice came to a significant aid to the sailors during the time of the cyclone in colonial Bengal. Piddington advised the sailors by suggesting that, If that course crosses your track it is plain that you may have to and let it pass on first. If you are on that side of it that by standing on or standing back, for a time you increase your distance from it, or get out of its way, of course you will do so, and in both these cases you will have avoided a Cyclone by your knowledge of the Law of Storms.³⁰

These efforts included implementing regulations to ensure better working conditions, establishing hospitals and dispensaries for sick or injured sailors, providing rudimentary insurance schemes, and occasionally setting up shelters or relief centres during cyclones and natural disasters. Meteorology had also been proved as an indispensable 'tool' to secure colonial maritime trade and restore maritime hegemony over the Indian Ocean.³¹ However, these initiatives were often limited in scope and effectiveness due to logistical constraints, inadequate resources, and the vast challenges posed by the maritime environment and the unpredictable

nature of disasters. Overall, while there were attempts to address sailor welfare, it remained a challenging task for the colonial administration during that time.

Among other natural hazards in colonial Bengal, the effect of the earthquake has been minor in terms of other natural hazards such as cyclones. However, during the colonial period in Bengal between 1864 to 1876, earthquake safety management, while important, wasn't as extensively addressed as cyclone and other natural hazard safety measures. The region primarily focused on cyclone preparedness due to the frequent occurrences of cyclones and their significant impact on maritime trade and coastal areas. Earthquake safety measures were relatively limited compared to cyclone management, as earthquakes were less frequent in that specific region during that time. However, basic awareness and some structural improvements were occasionally undertaken to mitigate earthquake risks, but the focus remained largely on cyclone preparedness and response.

The above narrative of the cyclones indicates the relatively strong point in the path and impact of the cyclones which broadly assorted from district to district. The cyclone narrative commonly tends to consist of descriptions of the transformation of land and human beings living in the immediate neighbourhood of the cyclones. Thus, it can be seen from the above discussion that the cyclone had taken away a considerable number of human lives and cattle, along with the creation of the condition of diseases. Not only that, the cyclone at that time under colonial rule Bengal's maritime trade was hugely affected by such cyclones. However, the colonial government did well to encounter the effects of cyclones on the maritime trade and the safety of the sailors by introducing several methods and safety measures to reduce the risk of losing the lives of the sailors and goods. The loss of human lives and destruction of cattle had considerably impaired agricultural production. The number of deaths of human lives and cattle which were reported by the police, as it was ascertained by the Collectors and Magistrates was 'under the mark as some deaths by drowning and not reported to or ascertained by the police.' Thus, large-scale confusion was prevailing regarding the actual number of deaths that occurred, and it can be assumed that there was an increased number of deaths than had been reported. The amount of loss of lives and property had continually remained a matter of assumption and hypothecation no important approach to the safety of lives (human and cattle) and evaluation of data was once devised by way of the State until the end of the nineteenth century.

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