



Review Article

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## Famines: Disasters and Indian Agriculture

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### ABSTRACT

Food production is still the major goal of Indian Agriculture which is largely controlled by the Monsoons. Therefore, famines are closely associated with agriculture in India. In Bengal (1943), the Great Famine has had a significant impact on the subcontinent's socioeconomic circumstances, which has led to marked changes to the lives of those living there. In addition, the socioeconomic landscape of the peninsula has been impacted by famines in a few other states. This review investigates the background of the catastrophic events in the peninsula of South Asia, with a focus on the period of British colonization. Academic viewpoints are offered to the geo-socio-politico-economical circumstances with the incidence of famines in the region. The present paper is an effort to investigate the causes, implications and perspectives of states of hunger during 18-20<sup>th</sup> century in India and Bangladesh. The significance of government initiatives, financial variables and climate trends in intensifying food shortages are among the major themes. The paper also highlights the social and economic consequences of these events on the populations of both countries.

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## INTRODUCTION

On the South Asian peninsula, especially Bangladesh and India during British rule, famine had been a common occurrence. In India, famines between 18<sup>th</sup> century and the early 20<sup>th</sup> century were so bad that they had a lasting impact on the country's population causing fatalities in lakh.

Indian agriculture is highly reliant on the weather; a good summer monsoon in the southwest is essential in obtaining water for crop irrigation (Swain *et al.*, 2017). Major Indian famines have occasionally resulted from droughts paired with ineffective

policies; a few instances of this are the famines that occurred in Bengal (1770), Doji bara, the massive famine of 1876-1878 and that of Bengal in 1943 (Collier and Webb, 2002; Nash, 2003). During the period when the British controlled over India, some observers have linked the severity of famines to the passivity of the British government (Davis, 2001). With the year 1943, the famine had mostly finished around the beginning of the last century.

An exception resulting from issues amid the Second World War was the famine in Bengal. Traditionally,

the main victims of famines in India have been rural artisans and agricultural laborers. Cultivators have been vulnerable during the greatest famines as well (Drèze, 1991).

In times of hunger, railroads constructed with the intention of profiting from the export of agricultural products such as food grains only contributed to worsen the situation economically (Anonymous, 2015; Saurabh and Myllyntaus, 2015). But by the 20<sup>th</sup> century, the British railroad extension had contributed to the cessation of the huge famines during times of peace. They made it possible for the British to provide food to the most vulnerable people more quickly (Burgess and Donaldson, 2017).

The 1943 famine in Bengal was the most recent significant famine to strike parts of the contemporary Republic of India. The last significant famine occurred in Bangladesh in 1974, although there were famines in other parts of British India as well (Taylor, 1981).

### **INDIA IN THE PAST, PRESENT AND PRE-COLONIAL ERAS**

More than 2000 years ago, one of the first treatises on hunger relief was written. This treatise is widely assigned to Kautilya, sometimes called Vishnugupta (Chanakya), who advocated that a virtuous ruler should either give the realm to another king or construct new castles and waterworks and impart his food among the populace (Drèze, 1991). Indian emperors have historically used a variety of hunger relief techniques. A few of these were straightforward, including starting the free distribution of food grains and inviting the public into open-air cooking and grain stores. Monetary strategies, such as revenue and tax forgiveness, army pay increases and advance payments, were further measures. Additional initiatives encompassed the building of public infrastructure, canals, embankments and well sinking. Migration was promoted (Drèze, 1991). During famines, Kautilya suggested robbing the wealthy of their food in order to "thin them by exacting excess revenue" (Drèze, 1991). Five primary sources contain details about

famines from the distant past to colonial periods (Currey and Hugo, 1984):

1. Myths transmitted through oral tradition preserve the memory of famines.
2. Ancient Indian sacred books, such as the scriptures, the Arthashastra as well as the Jataka stories.
3. There had been several famines prior to the 16<sup>th</sup> century, based on records discovered on metallic objects and rocks.
4. Indian historians' writings during the Mughal era.
5. Works by foreign authors who were briefly residents of India (such as Francis Xavier and Ibn Battuta).

Around 269 BCE, the antiquated Ashokan decrees from the period of Mauryas' attest to Kalingas' conquest by Emperor Asoka, which is almost equivalent to the contemporary Odisha state of today. Important pillar and rock decrees refer to the war's estimated 100,000-strong human cost. An even greater number subsequently died, according to the edicts, most likely from wounds and starvation (Keay, 2000). One example of Indian literature is the Periya Puranam, which mentioned a famine in the 7<sup>th</sup> century in the Thanjavur district caused by lack of rain. The Purana claims that Lord Shiva assisted Sambandar and Appar, two Tamil saints, in providing food during the famine (Currey and Hugo, 1984). An inscription from 1054 in the same territory describes another famine that occurred there, mentioning things like "times becoming bad," the destruction of a hamlet and disruptions to food cultivation in landing (Currey and Hugo, 1984). The twelve-year Famine in south India, called *Dvadasavarsha Panjam* and that during 1396-1407 called Durga Devi Famine are two famines that have only been passed down orally (Anonymous, 1883; Currey and Hugo, 1984; Anonymous, 1885). The main sources of information about famines during this time are fragmented and dependent on geography (Currey and Hugo, 1984). Muhammad bin Tughluq, the ruler of the Tughlaq Dynasty, ruled

during the 1335-1342 Delhi famine, which is said to have claimed thousands of lives. The Tughluqs were preoccupied and in a tough condition, thus they were unable to adequately handle the famine (Walsh, 2006). The Deccan saw pre-colonial famines in the years 1460 at Damajipant and subsequently in 1520 and 1629. It is reported that the Damajipant famine devastated the Deccan's northern and southern regions (Anonymous, 1883; Anonymous, 1885). During a famine in 1555, Badayuni Abd al-Quadir asserts that in Hindustan he has seen cannibalism (Eraly, 2007). One of the deadliest famines in Indian history occurred in the Deccan and Gujarat between 1629 and 1632 (Attwood, 2005). An estimated thirty lakh people died in Gujarat and ten lakh in the Deccan in the first ten months of 1631. In the end, the famine claimed the lives of both the wealthy and the impoverished (Attwood, 2005). The Deccan saw further famines in the years of 1655, twenty-seven years later in 1682 and over two centuries later in 1884. In the famine lasting two years during 1702-1704, approximately twenty lakh people perished. The Dojibara famine of 1791-1792 is the earliest hunger crisis in the Deccan with locally documented accounts adequately maintained for analytical research (Anonymous, 1883). The king, Peshwa Sawai Madhavrao II, gave relief by prohibiting the export of grain and bringing in a substantial amount of rice from Bengal through private trade (Anonymous, 1883; Anonymous, 1885), although the data is frequently insufficient to assess the "true efficacy of relief efforts" during the period of Mughals.

Kaw (1996) stated that there were multiple recorded famines in Kashmir during the centuries of sixteen and eighteen. The Afghan kings and the Mughals in Kashmir employed action in their opposition, but as this study aims to demonstrate, their actions were insufficient and in some ways worse than those of their forebears. Current accounts indicate a discernible fluctuation in the frequency of famines over several years. They demonstrated the widespread nature of these famines, as they have been informed that an exceptional flood severely damaged the standing crop. For example, the big

flood of 1640-1642 destroyed 438 villages in the Kashmir region alone (Kaw, 1996).

According to some historians, the Moguls' patrimonial approached toward the peasantry helped to lessen the consequences of the famine. For example, Mike Davis (2001) asserted that Aurangzeb, Akbar and Shah Jahan relied on price restrictions, food export embargoes, giving away meals for free without expecting efforts in exchange and tax breaks (Davis, 2001). These, however, are characterized by Abraham Eraly as "token and random measures, at best palliatives." For instance, during the famine of 1630-1632, the emperor distributed 100,000 rupees or tenth portion of the yearly "pin-money" given to Mumtaz Mahal, his empress, as famine assistance. A tax-exemption of approximately 70 lakh rupees was given by both local Jagir Amirs and imperial revenue officers (Eraly, 2007).

## THE BRITISH EMPIRE

The late 18<sup>th</sup> and early 19<sup>th</sup> centuries saw an increase. More people perished from 24 significant famines during 1850-1899, roughly one crore fifty lakh, than during any other fifty-year period (Sourabh and Myllyntaus, 2015). These British Indian famines were bad enough to affect the sustained population increase of the nation considerably in the long term, particularly over the fifty years between 1871 and 1921 (Singh, 2002). Ten lakh to one crore people are thought to have died during the first famine, the Great Bengal famine of 1770 (Sen, 1983; Visaria and Visaria, 1983; Gráda, 2015; Datta, 2000).

The famine caused Bengal's earnings to the East India Company to plummet during 1770-1771 to 174,300 Pounds. The East India Company's stock price plummeted as a consequence. The company was forced to apply from the Bank of England for a loan of ten lakh pounds to pay for the £60,000-\$1 million yearly military expenditure (James, 2000). Subsequent attempts were undertaken to demonstrate that net revenue remains unaffected by the starvation, but this was only made feasible by the

collection being "violently kept up to its former standard" (Bowen, 1991). According to the 1901 Famine Commission, there were four "severe scarcities" and twelve famines between 1765 and 1858 (Kumar and Desai, 1983).

## FAMINE IN INDIA

Later in the 1800s, India experienced a string of catastrophic crop failures that caused epidemics in addition to starvation. Although regional in nature, the death toll can be very high. During the tenure of Lord Curzon as viceroy, a severe famine struck much of India killing over ten lakh people (Fieldhouse, 1996; Davis, 2001; Fagan, 2009).

Top ten worst famines in India during the British: Eight lakh people perished in Rajasthan, Punjab and the North West Provinces during 1837-1838; maybe twenty lakh in the same area during 1860-1861; almost ten lakh in various areas in 1866-1867; forty-three lakh extensively distributed regions between 1876 and 1878; an extra twelve lakh in Kashmir and the North West Provinces during 1877 and 1878; and most tragically, more than fifty lakh perished during a period of hunger struck a sizable portion of the country in 1896-1897. In 1899-1800, almost ten lakh people were estimated to have perished. According to researcher Murton (1970), famines that were documented after the Brits arrived but prior to the Famine Codes in India were established in the eighties of the nineteenth century had a bias based on culture in their reported reasons since they "reflect the view of a handful of Englishmen." On the other hand, these sources provide precise meteorological and crop conditions recorded. Throughout from the 1870s onwards, Florence Nightingale published a number of articles in an attempt to inform British citizens about the famines in India (Gourlay, 2017).

Florence Nightingale noted that the famines in British India had nothing to do with food scarcity in a specific region. Rather, they were brought on by insufficient food transportation, which was brought on by the lack of a social and political system (Nightingale *et al.*, 2006).

Grain famine and "money famine" are the two categories of famine that Nightingale distinguished. The peasant was deprived of food because money was taken from him and given to the landlord. Funds intended for employment and public works initiatives that might have supported food growers were instead redirected to other purposes (Nightingale *et al.*, 2006). Nightingale brought attention to the fact that funds intended to fight starvation were being used for other purposes, such as funding the British military's 1878-1880 expedition in Afghanistan (Nightingale *et al.*, 2006).

There is evidence that during pre-colonial India, perhaps there were severe famines occurring in south India every four decades and in the 12<sup>th</sup> century, their incidence may have risen. Even then, these catastrophes did not seem to be as common as those which occurred during British control in the 18<sup>th</sup> and 19<sup>th</sup> centuries (Currey and Hugo, 1984).

Technology and innovation in agriculture have been aggressively promoted by the Indian government. The National Agriculture Market (eNAM), the direct benefit transfer in fertilizer sales and digital cards for soil health, the construction of single agriculture data sets stored in a database (Agristack) and encouraging farmer-producer associations (FPOs) are among the initiatives. By expanding information availability, strengthening crop and soil management and guaranteeing higher rates for what they grow *via* an open auction sale system, these initiatives seek to assist farmers. For instance, ITC established the ITCMAARS agricultural app, which uses a partnership approach to give farmers access to finance, high-quality inputs at fair pricing and contemporary tools. Agtech advances have the potential to grow the Indian economy by \$95 billion and raise farmer incomes by 25% to 35% (Anonymous, 2020b).

## ACADEMIC VIEWS

The Nobel Laureate in Economics Amartya Sen discovered that disparities in the supply of food, rather than a scarcity of food, were the cause of the famines throughout the British rule. He connected

the lack of democracy of the British Empire to the inequalities.

Davis (2001) called the catastrophes of the decades of 70s and 90s of nineteenth century "Late Victorian Holocausts," wherein the massive crop failures owing to weather coupled with the British Government's inept approach worsened the situation. In India, the negative impression of British rule is ubiquitous. Millions of people perished, according to Davis (2001), "not outside the modern world system, but in the very process of being forced into its political and economic structures." They perished during the height of capitalism being liberal; in fact, numerous of them were killed as a result of the theological application of Bentham, Smith and Mill's inviolable ideas." Still, Davis asserted that these famines only happened under an economic liberal system, not social liberalism, because the British Raj was an authoritarian and undemocratic regime (Mantena, 2007).

According to Roy (2007) and Fergusson (2003), the famines were caused by natural disasters and were a part of India's ecosystem. According to Roy (2007), in order to end India's agricultural stagnation, significant investments were needed. However, these failed to materialize because of lack of water, poor livestock and soil quality with an underdeveloped market for inputs, all of which made agricultural expenditure exceedingly risky. India concentrated on institutional agricultural changes after 1947, but this did not succeed in ending the trend of stagnation. India did not experience famine until the 1970s, when the government made significant investments in agriculture. However, Roy (2006) believed that enhancements in the efficiency of market help to lessen climate-related famines post 1900, assuming the sole exception of the Bengal catastrophe of 1943 (Roy, 2006).

According to McAlpin (1979), the 19<sup>th</sup>-century economic shifts in India played a role in the famine's eventual end. India's heavily dependent economy on subsistence agriculture in the nineteenth century led to the twentieth century's more varied economy which offered alternative employment opportunities

and reduced disturbance to agriculture (and thus, death) throughout periods of shortage (McAlpin, 1979). Between 1860 and 1920, Indian railways were built, providing farmers with prospects for higher profits in other markets and enabling them to accumulate assets that they might later utilize in times of scarcity. In the Bombay administration, numerous farmers had been cultivating some of their harvest intended for shipment abroad by the early 1900s. Food was also transported by rail if anticipated shortages started to raise food costs (McAlpin, 1979). In a similar manner, Donald Attwood (2005) noted that regional food deficits in any particular area and time of the year were substantially mitigated by the unseen influence of the market by the last decade of the nineteenth century (Attwood, 2005) and also that 'from 1920, huge-scale organizations connected these areas into a growing and expanding world, resulting in a rapid drop in death rates and consequently an upsurge in public wellbeing' (Attwood, 2005).

While famines in India and Ireland were not caused by colonialism, Cormac Ó Gráda (2009) claimed that the failure of the ruling class to respond adequately was more of a factor in both cases. The railway and other forms of better communication played a role in the subcontinent's hunger-free period between the 1900s and 1943, he noted, "although the shift in ideology away from hard-line Malthusianism towards a focus on saving lives also mattered." He made the observation that the further back in time one goes, the more erratic the reports of hunger get, both in India and globally (Gráda, 2009).

## REASONS

Inequitable precipitation and British governmental and economic policy were the causes of the famines (Srivastava, 1968; Sen, 1983; Bhatia, 1991). The growth of export agriculture, taxes for open trade and conflicts, rack-renting and disregard for agricultural investment are among the colonial policies implicated (Davis, 2001; Mander, 2009). The British Empire's economy depended heavily on India for its exports of jute, rice, opium, wheat, cotton, indigo and millets. These exports, mostly to

China, provided important foreign exchange and stabilized the poor rates of grains in British markets (Wong, 1998; Davis, 2001). Davis (2001) claimed that lakh of hectares which were available for use to meet the consumption at home were replaced with crops for export, making Indians more susceptible to food shortages. Ravallion (1987) refuted the notion that exports played a significant role in the famine, highlighting that trade did, in fact, provide a slight balancing influence on the country's food intake.

Among these famines was that of Odisha during 1866-1867, which subsequently extended to Hyderabad and Mysore *via* the Madras Presidency (Walsh, 2006). In the dreadful and severe famine of 1866, over one-third of the population in Odisha perished (Samal, 1990). An estimated 1,553 orphans were left behind by the famine and their guardians had to provide them with monthly three rupees to male children and sixteen to the female children until they attained the age of seventeen (Samal, 1990). Similar famines followed in the Deccan (1876-78), Eastern India including Bengal (during 1873-74), Western Ganga region, the state of Rajasthan, the middle of India (during 1868-1870) and during 1876-1878 in the regions of Bombay, Madras, Mysore and Hyderabad (Walsh, 2006). A significant number of workers in agriculture and craftspeople from the southern part of India moved to the tropical British colonies during the 1876-1878 famine, commonly referred to as 'the 1876-1878 Great Famine', to serve as indentured laborers on plantations (Roy, 1999; 2006). The high mortality toll, which ranged from 56 lakh to 1 crore and 3 lakh, countered the typical populace rise in the presidencies of Bombay and Madras between the first and second censuses of British India, which were conducted in 1881 and 1871, respectively (Roy, 2006; Dyson, 2018).

The significant death toll from the string of famines that occurred between 1860 and 1877 sparked political debate and controversy, ultimately resulting in the establishment of the Indian Famine Commission. Later on, this commission would provide a draft of the Indian Famine Code (Currey and Hugo, 1984). But the 1876-1878 Huge Famine

was the instantaneous cause for investigations leading to the procedure that culminated in the conception of the Indian Famine Code (Currey and Hugo, 1984). The famine of 1896-1897 in India was the ensuing important famine. In spite of the fact that the drought in Madras Presidency preceded this food shortage, the *laissez-faire* attitude of the government toward business of foodgrain worsened it (Ghose, 1982). For example, the territories of Vizagapatam and Ganjam, which were included in the most harshly disturbed by the scarcity of food in the Madras Presidency, kept on shipping foodgrains throughout the disaster. Various infectious diseases, including influenza and the bubonic plague, often struck and killed a population that was already vulnerable due to malnutrition after these famines (Walsh, 2006).

#### **THE 1943 BENGAL FAMINE**

The most detrimental of the Bengal famine of 1943 occurred in the beginning of 1945, having peaked in the same year from the month of July to November (James, 2000). Statistics on famine deaths were faulty and up to twenty lakh deaths are thought to have occurred (Nafziger, 2012). While the Japanese seizure of Rangoon in 2007 resulted in the interruption of Bengal's rice supply, this accounted for merely a portion of the food required for the area and contributed to the famine (Gráda, 2007). The Irish economist and lecturer Cormac Ó Gráda (2007) claimed that military concerns took precedence over the needs of the underprivileged in Bengal (Gráda, 2007). It should be highlighted, therefore, that the Army was instrumental in ending the Famine and that the elected government of Bengal was ultimately responsible for providing food. The Indian government attempted to send food from places of plenty, like Punjab, to areas of famine, like Bengal; however, the provincial governments impeded the grain's path (Anonymous, 1945). According to the Famine Commission of 1944-1945, there was less food available until the end of 1943 due to the bad harvest. Although his calculations have been questioned, Amartya Sen, an economist concluded that Bengal has sufficient rice to feed everyone in the entire state for the most of 1943. Sen



contended that inflation was the root cause of the famine, with those who benefited from it consuming more and leaving less for the general populace. This assertion was not made in the Famine Commission Report. It claimed that due to the fact that producers selected to store or sell trade grains at a premium price rate, impoverished people and those working in service jobs in villages went hungry (Gráda, 2007). However, the impact of fungal disease on rice and potential estimation errors were not taken into consideration in these investigations. According to De Waal (1997), the British government, which was actually composed of elected Bengali politicians, neglected to enforce the Famine Codes for the Bengal famine in 1943 due to the fact that they were unable to identify a paucity of food (Waal, 1997). The 1943's famine of Bengal was the final major famine to strike India. It is particularly significant in the annals of famine history because of Sen's seminal 1981 work "*Poverty and Famines: An Essay on Entitlement and Deprivation*" the precision and evaluation of which have been sharply disputed by famine specialists (Gráda, 2007). The Bengal catastrophe mixture, which was made of rice and sugar, was created as a result of this catastrophe. Tens of thousands of lives would subsequently be saved at liberated concentration camps like Belsen.

There has been a decrease in the number of famines with short durations and limited consequences since the 1943 Bengal famine. Sen (as cited by Iqbal and You, 2001) blamed a free press and democratic government for the decline or abolition of famines following independence, not higher food production. There hasn't been a significant famine in India since 1943 thanks to the Indian government's successful containment of subsequent famine threats in 1984, 1988 and 1998 (Devereux, 2007). The 1947 Indian independence did not end crop damage or precipitation deficits. Thus, the danger of famines persisted. Major famines in West Bengal (1973), Gujarat (1967), Maharashtra (1987) and Bihar (1979) posed a serious threat to India. But because of government assistance, these did not materialize into famines (Drèze and Sen, 1991). Although the death toll was not as high as it was during the Bengal famine in 1943 or previous ones, the issue

persisted. According to Jean Drèze (1991), "an event which must count as marking the second great turning point in the history of famine relief in India over the past two centuries" was the independent Indian Government's "largely remediation" of the reasons three significant shortcomings of the British famine policy from 1880 to 1948 (Drèze, 1991).

India accounted for 19 crore 40 lakh of the 81 crores malnourished individuals worldwide during 2016-18 (FAO, 2019), which makes it a crucial country to target for addressing hunger worldwide. The minimal nutritional intake decreased over the past 20 years, despite a more than threefold increase in the income per head.

## DEVELOPMENT OF INFRASTRUCTURE

Efforts for relief from food scarcity increased following the British withdrawal, resulting in a reduction in the incidence of hungry deaths. Policy measures in independent India were intended to provide food at subsidized prices through the public distribution system and to help people become self-sufficient in earning a living (Thakur *et al.*, 2005).

The establishment of institutions like the Pantnagar University, the Cuttack Central Rice Institute and the Shimla-based Central Potato Research Institute between 1947 and 1964 laid the groundwork for the country's agricultural infrastructure. Despite the benefits of the improved infrastructure, food imports were still necessary because of India's 3% annual population growth. One crore tonnes of food was brought from the US at its highest point (Swaminathan, 2007).

The NABARD (National Bank for Agriculture and Rural Development) was established to fill infrastructure gaps over the twenty years from 1965 to 1985 (NABARD). NABARD offers aid with debt restructuring and credit postponements (rescheduling) to eligible establishments such as State Cooperative financial institutions and RRBs (Regional Rural Banks) that may avail such assistance (Kumar, 2004; Singla *et al.*, 2004). Superior-producing cultivars of rice and wheat were introduced during the same period. This phase's

actions gave rise to the Green Revolution and a sense of self-assurance in India's capacity for agriculture. Initially celebrated as a triumph, the Green Revolution in India has been reduced' to a 'competent achievement' recently. It is not that the quality food production has reduced; rather, it has commenced to decelerate to a state that could no longer keep pace with the populace expansion in the country. Coarse grains were the foremost priority during 1985-2000, over and above the production of oilseeds, pulses, vegetables, fruits and dairy products. Rain-fed areas received additional attention and a wasteland development board was established. However, public spending on infrastructure and irrigation decreased. Additionally, the cooperative credit system began to gradually crumble during this time. Through the Kisan Credit Card program, NABARD established a credit system in 1998-1999 that enables banks to provide farmers in need with fast, short-term loans. With a total credit of Rs. 33 thousand 9 hundred 92 crore rupees (US\$ 4.3 billion) provided by the issuance of Twenty-three million credit cards in November of 2002, the plan has gained popularity between beneficiary producers and lending institutions (Singla *et al.*, 2004). Land use for fuel or food has become a competitive problem between 2000 and the present because of the demand for ethanol.

## DROUGHT IN BIHAR

The 1966-1967 Bihar famine was a minor one with a low number of starving deaths when compared to the earlier famines. This drought demonstrated the ability of the government of India to manage the worst of the drought-related circumstances. Approximately half of the 2325 official deaths attributed to famine during the Bihar drought happened in the state of Bihar. There had been no appreciable increase in infant starvation mortality throughout the Bihar famine (Singh, 2002).

Bihar's foodgrain production came down from 75 lakh tonnes in 1965-66 to 72 lakh tonnes in 1966-67. The reduction to 43 lakh tonnes in 1966-67 was more drastic. The foodgrain production of the country decreased by 19% from 8 crore 94 lakh

tonnes in 1964-65 to 7 crore 23 lakh tonnes in 1965-66. Rising food grain prices caused migration and malnutrition, but the public distribution system, aid provided by the government and charitable groups lessened their consequences (Anonymous, 1989). The Indian government frequently requested food and grains sourced from the United States to replenish damaged crops, but Lyndon B. Johnson restricted US food aid in response to Indian critique of the United State's participation in the war in Vietnam (Brass, 1986; Anonymous, 2020a). More than 20,000 fair-price outlets were established by the government to give food to the underprivileged and people with low incomes at defined prices (Cuny and Hill, 1999). This influx caused a widespread drought in Bihar, even though crops and livestock were devastated. A large-scale drought was also prevented by using a variety of drought prevention strategies, including enhancing communication skills, broadcasting radio bulletins and providing jobs for impacted individuals in government public works initiatives (Gupta *et al.*, 1995).

The 1966-1967 drought in Bihar provided momentum for additional policy changes in agriculture, which culminated in the Green Revolution (Thakur *et al.*, 2005).

## MAHARASHTRA DROUGHT OF 1972

India thought about being self-sufficient and exporting food in the early 1970s following a number of years of favorable rainfall and a bountiful crop. The Maharashtra state government claimed earlier in 1963 that the state's agricultural situation was continuously monitored and that remedial actions were initiated as soon as any shortage was identified. The government enacted "The Maharashtra Deletion of the Term 'Famine' Act, 1963" based on this and said that the word famine was no longer relevant in this situation (Sainath, 2010). When 25 million people needed assistance in 1972 due to the drought, they were unable to predict it. The Maharashtra government's relief efforts included jobs and initiatives to create productive assets like planting trees, conserving soil, excavating canals and constructing man-made lentic water



bodies. Food was delivered *via* the public distribution system *via* fair-priced stores. There were no documented hunger deaths (Anonymous, 1989).

A significant amount of food was drawn to Maharashtra by the state's large-scale employment programme for the underprivileged segments of the population (Drèze, 1991). During the famines in Bihar and Maharashtra, the Scarcity Manuals were put into practice, which helped to prevent deaths caused by acute food shortages. Drèze (1991) referred to the Maharashtra relief program as a model program, while the Bihar program was subpar. During the height of Maharashtra's drought, the government's relief efforts helped employ nearly 5 million people, effectively preventing famine (Waal, 1997).

The public's direct pressure on the Maharashtra administration, believing that it was their right to work under the relief works programme, was another factor in Maharashtra's effectiveness. People demonstrated by picketing, marching and even rioting (Drèze, 1991). "They would let us die if they thought we would not make a noise about it," a labourer is quoted by Drèze as stated (Drèze, 1991).

The drought in Maharashtra, which is renowned for its effective application of hunger prevention measures, resulted in zero fatalities (Anonymous, 1989).

### **DROUGHT IN WEST BENGAL**

The second significant drought, which occurred in West Bengal during 1979-1980, resulted in a 17% decrease in agricultural output and a 1 crore 35 lakh tonnes foodgrain shortage. The government used its food reserves as leverage and foodgrains were not imported in excess. Beyond India, not much was understood about the famine (Anonymous, 1989). The understandings from the famines in West Bengal and Maharashtra are mirrored in the Drought Prone Area Programme (DPAP) and the Desert Development Programme. These programmes intended to bring the harmful effects of droughts down by employing environmentally friendly soil and water conservation practices. Large-scale

initiatives to diversify agriculture, expand irrigation and enhance rural infrastructure were also started. The 1987 drought taught us the importance of managing watersheds, creating jobs and developing in an ecologically sustainable manner (Thakur *et al.*, 2005).

### **DROUGHT IN GUJARAT IN 1987**

The interruptions in the rainfall of 1987 had stark concerns for the Indian state of Gujarat. A grave famine affected 16 of 19 districts in the state. The Saurashtra region was hit hard by a severe economic crisis that resulted in the closure of peanut mills and significant disruptions to agriculture.

### **MAHARASHTRA DROUGHT OF 2013**

The Union Agriculture Ministry said in March 2013 that more than 11,801 Maharashtra villages were classified as drought-affected (Mehta, 2013). The 1972 drought in Maharashtra is the only drought to date which has been worse than this one (Marpakwar, 2013).

### **ADDITIONAL ISSUES**

Large-scale malnutrition-related deaths have persisted in India until the modern era. For instance, there are reports by Times of India that in 2009, grave or moderate famine took the toll of based on the reports of the Times of India (TNN, 2010). Also, in 2010, The Times of India analyzed that half of children's mortalities in India were associated with nutritional deficiencies (Dhawan, 2010).

Increasing cost of exports, temperature variations, rainfall vagaries and the retreating glaciers in the Himalayas due to greenhouse effect, all these affect the status of foodgrain production in India. There are indications that prior to independence the probability of famines were higher if agricultural production does keep pace with the increasing rate of population growth. Numerous individuals, including Scientist Dan Banik and social campaigner Vandana Shiva, concur that since India's independence in 1947, famines and the ensuing widespread death toll from malnutrition have been eradicated.

## CONCLUSION

The chronological evidence of famines in British India, provides a serious reminder of the overwhelming significances of natural calamities, lack of effectiveness in governance and socio-economic disparity. While the Indian subcontinent

has observed a substantial reduction in wide-ranging famines in contemporary decades, the fundamental weaknesses and challenges that added to these disasters still continue. Across centuries, India has struggled with the threat of famine, often worsened by elements such as drought, failure of crops and insufficient set-up. The British India was marked by a chain of overwhelming famines, the Great Famine of 1876-78 and the Bengal famine of 1770 being the major ones, which resulted in casualties to millions. The British government's strategies, often categorized by economic abuse and negligence of the rural populace, had a significant role to play in worsening these predicaments. In spite of the challenges presented by famines, the history of India also offers instances of adaptation and resilience. Conventional practices like famine relief practices and public works schemes, as well as latest initiatives such as the Green Revolution, have facilitated to alleviate the effect of these adversities. However, India's exposure to famine remains a concern, predominantly in areas with reduced access to resources and infrastructure. India of the modern times has made considerable advances in focusing on food security and decreasing the occurrence of famine. Nonetheless, the menace of food insecurity continues, principally in the view of climate change, rate of population expansion and economic disparity. Safeguarding that all people have easy approach to ample food is a serious challenge for the government and civil society in India. To conclude, the record of famines in Indian subcontinent performs as a warning of the distressing results of natural catastrophes, failures in governance and social disproportions. Although much progress has been observed in recent past, the vulnerability of India to food insecurity is still a matter of grave concern. By taking a lesson from the past and empowering the future, India can shape a more robust and justifiable

civilization that is better armed to resist the confronts of food insecurity and famine.

## Conflict of Interest

The authors declare no conflict of interest.

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