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'Sufficiency and Sufficiency and Sufficiency': Revisiting the Bengal Famine of 1943-44

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UCD SCHOOL OF ECONOMICS UNIVERSITY COLLEGE DUBLIN BELFIELD DUBLIN 4 'SUFFICIENCY AND SUFFICIENCY AND SUFFICIENCY':

REVISITING THE BENGAL FAMINE OF 1943-44¹

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¹ Paper presented at a conference on twentieth-century famines, University of Melbourne, June 2010. Earlier versions were presented at the International Economic History Association Conference, Helsinki, and at Northwestern University, the International Institute of Social Studies (den Haag), and EHESS (Paris). Thanks to Stephen Hannon for drawing the maps, and to Lance Brennan for advice and support.

'SUFFICIENCY AND SUFFICIENCY AND SUFFICIENCY':

Mindful or our difficulties about food I told [Fazlul Huq] that he simply must produce more rice out of Bengal for Ceylon even if Bengal itself went short!

Linlithgow to Amery, January 26th 1943

The doctrine of sufficiency and sufficiency and sufficiency must be preached ad nauseam.

H.S. Suhrawardy, May 1943

The dead body of a...boy was found floating in a ditch near the Adamdighi railway station...the deceased along with his brother was coming towards Adamdighi to get 'Prasad' from the local 'Puja Baris'. In the midway the younger brother was staggering fell down unconscious. Seeing him on the verge of death the elder brother, to get rid of him, pushed him into the ditch and then hastened to the 'Puja Bari' and partook of the 'Prasad'.

Kali Charan Ghosh, Famine in Bengal 1770-1943.

1. INTRODUCTION

Although the broad chronological and demographic contours of the Bengal famine of 1943-44 are well known,¹ its underlying causes are still debated. The

authorities at the time blamed the unfolding crisis on undue war-induced hoarding by merchants, producers, and consumers. This interpretation was repeated in the officially-appointed Famine Inquiry Commission's *Report on Bengal*, which also accused local politicians and bureaucrats of incompetence. The view that the famine was mainly due to market failure in wartime conditions rather than to adverse food supply shocks was popularized in the 1970s and 1980s by Nobel Laureate Amartya Sen. Sen's now-classic account not only began an academic debate about the Bengal famine; it also switched the analysis of famines generally away from food availability decline (FAD) per se to the distribution of, or entitlements to, what food was available. Bengal, Sen argued, contained enough food to feed everybody in 1943 but massive speculation, prompted in large part by wartime conditions, converted a minor shortfall in food availability into a disastrous reduction in marketed supply. Sen's analysis has been enormously influential. As his interpretation of the Bengali evidence continues to be focus of specialist discussion, for specialist and non-specialist alike the Bengal famine has become a near-paradigmatic famine.²

Crucially, the famine was a war-famine. Rangoon had fallen to Japanese forces in March 1942. In the following months they sank a destroyer and several merchantmen in the Bay of Bengal, and engaged in the sporadic bombing of Bengali cities; an air raid on Calcutta in December 1942 caused considerable panic and the displacement to the countryside of thousands of civilians. Although Japanese forces were too thinly spread to risk an invasion, Bengal remained exposed and vulnerable. Its usual supplies of Burmese rice, albeit a small proportion of aggregate consumption, were cut off. On military advice, officials removed rice and paddy deemed surplus to local requirements from

coastal districts such as Midnapur, Bakerganj, and Khulna. They also requisitioned and destroyed boats capable of carrying ten or more passengers to prevent their use by any invading Japanese soldiers. This 'boat denial policy' compromised the livelihoods of two of the most vulnerable groups—fishermen and boatmen—and increased transport costs. Moreover, the authorities prioritized Calcutta, where many workers were engaged in war-related production, over the rest of the province. More than half of India's war-related output was produced in Calcutta by an army of workers numbering up to one million, 'made up to a considerable extent of a volatile class recruited from outside Bengal'. Concern for the city's 'priority classes' accounted for the forcible requisition of rice from mills and warehouses in and around the city in late December 1942.³

Sen also made the more general point that famines are unlikely in democracies, since free assembly, a free press, and the threat of electoral redress force elites to intervene.⁴ Research by Besley and Burgess, using state-level evidence from post-independence India, corroborates; they find that greater newspaper circulation and electoral accountability prompted more generous and effective public disaster relief. This finding is supported by Banik, also on the basis of recent Indian data.⁵

The role of the press during the Bengal famine is interesting in this respect. On the one hand, wartime censorship limited the freedom of the press to criticize or, indeed, to publish news deemed damaging to the war effort. A good case in point is the devastating cyclone that struck Midnapur on October 16th 1942, news of which took nearly a fortnight to reach a senior minister in the Bengal government. Only in January 1943 was the real scale of the damage

revealed, 'mainly because at the outset it was necessary to suppress the full details, as these would have been of value to the Japanese⁷⁶. Opposition spokesmen claimed that the severity of the impending famine was being kept from the people because 'the government has gagged the press and forbidden public meetings where food problems are likely to be discussed⁷⁷. Newspapers supporting the nationalist Quit India movement were censored or shut down at this time and their editors fined or imprisoned.⁸ A clandestine press and an underground opposition operated, but were poor substitutes for the genuine article. The case of Bengal suggests that Sen's hypothesis might thus be extended to democracies or semi-democracies during wartime.

On the other hand, the government did not ban press reports of the famine, nor did it ban newspapers not deemed directly subversive. *Amrita Bazar Patrika* and *The Hindustan Times*, for example, continued to appear,⁹ although they presumably engaged in some self-censorship, as did progovernment newspapers. Ministers also expected the press to propagandize on their behalf. In Bengal in 1943 this meant helping to calm public fears about the food supply and to counter the 'psychological factors' responsible for food shortages and price rises.¹⁰ Here the case of Bengal's most influential English-language daily, the Calcutta *Statesman*, is of particular interest. The *Statesman* won accolades for publicizing the famine through a series of graphic photographs published in August 1943 and later.¹¹ Yet for months beforehand, it toed the official line, berating local traders and producers, and praising ministerial efforts.

The *Statesman* and Calcutta's other leading English-language newspaper, *Amrita Bazar Patrika*, nonetheless also published a great deal of useful

information on assembly debates, policy shifts, price movements, and local conditions throughout 1943 and 1944.¹² Information culled from these newspapers informs much of what is in this paper, the outline of which is as follows. Part 2 addresses how those in authority—the British, local administrators, Hindu and Muslim politicians—interpreted and reacted to the enfolding crisis. Part 3 re-examines evidence on prices, hoarding, and land sales during and in the wake of the crisis. Part 4 discusses the regional dimension of the famine. Part 5 concludes.

2. THE UNFOLDING CRISIS

'Famine conditions of 1770 are already upon us'. Amrita Bazar Patrika editorial, August 1943

Even before the end of 1942 Bengal's prospects were already causing disquiet in London, Delhi, and Calcutta. The weather was not propitious, with much more rain than normal in the west of the province in October-November. Meteorological data indicate that rainfall had been above average across much of west Bengal, although only six out of ninety-one weather stations— Berhampore (Murshidabad), Sonamukhi (Bankura), Midnapur, Contai, and Gopiballabhpur (Midnapur) and Ulumberia (Howrah)—recorded rainfall more than two standard deviations above the average (see Table A1).¹³ In early December a memorandum from the Delhi Government's Food Department informed the Secretary of State in London of an impending crisis due to 'loss of Burma rice, floods in Sind, cyclones in rice growing areas of Bengal and Orissa, and an indifferent rice crop generally in Bengal which is the main rice producing province'.

In January 1943 a committee appointed by Calcutta's corporation suggested the need for food rationing.¹⁴ By March-April the situation was already critical both in coastal sections of Midnapur, where the cyclone had struck, and in eastern Bengal. Relief works began, albeit on a small scale, in villages near Dacca in March, and food rations were supplied to government employees at controlled prices. In early April a deputation from Chittagong, next to Japanese-occupied Burma, prompted an assurance from a senior official that rice and paddy (rough, unhusked rice) supplies would be provided 'immediately' and food rationing introduced there shortly. In Patgram in the extreme north, in 'very many cases' barley chaff was being substituted for rice. There was hardship too in Ishwarnagar in the eastern division of Khulna, where high food prices were hitting labourers, the lower middle classes, and 'those cultivators who have got a small quantity of land and whose paddy crop has failed'¹⁵.

An outbreak of cholera in Calcutta in May 1943 drew media attention to the growing influx of poor people from the surrounding countryside. The migrants' habit of queuing for hours for food in front of controlled shops led them to 'indulge in unhygienic practices and create unhealthy conditions in the localities where shops are located'.¹⁶ The poor were also blamed for the appalling state of the city's dustbins.¹⁷ Meanwhile the Ministry of Civil Supplies announced that labourers' food rations in Calcutta in future would consist of equal shares of *atta* (a kind of wheat flour) and rice, in order to release rice for

the rural areas. Urban workers were expected to 'cheerfully bear this sacrifice' for the sake of others who required assistance 'very badly'¹⁸. In early July the government opened its first food shop in Calcutta, selling rice at 6 annas per seer (about 2lbs.) to the very poor. H.S. Suhrawardy of the Muslim League, as the minister responsible for civilian food supplies, made the first sale.¹⁹ Meanwhile 'growing economic distress' in the city was producing a considerable increase in petty crime.²⁰ Classic symptoms of famine, such as the sales of girls and women, mass migrations into the towns and cities, and the consumption of 'unedibles and meat from dead cows'²¹, were widespread by July.

The regional incidence of the famine may be inferred from Maps 1 and 2. Map 1, based on the classification adopted by the government's revenue department, was criticized for omitting subdivisions found to be 'appreciably or even severely affected' in an ambitious survey organized by statistician P.C. Mahalanobis for the Indian Statistical Institute (ISI). Map 2, based on an alternative classification and deemed more reliable by Mahalanobis,²² highlights two clusters of 'very severely affected' subdivisions. The first, in the coastal west, includes two subdivisions in Midnapur (Contai and Tamluk) and one (Diamond Harbour) in 24-Parganas. The second much larger cluster contains twelve subdivisions straddling the eastern divisions of Noakhali, Tippera, Dacca, and Faridpur. In addition, eight subdivisions to the north of the second cluster and twelve to its west were 'severely affected'. Both maps imply that the western half of the province, apart from the three subdivisions in the first cluster and 'severely affected' Howrah, escaped relatively lightly.

At the outset the official stance was that there would be no problem as long as 'consumers do not rush to lay in stocks at once for a long period

ahead'.²³ As the crisis intensified the focus shifted to hoarding, whether out of fear or greed, which the authorities blamed for the 'maldistribution' of available rice supplies. Until the crisis degenerated into out-and-out famine, the policy mantra—as articulated by Secretary of State for India Leo Amery in London, Viceroy Lord Linlithgow in Delhi, and Suhrawardy in Calcutta—was that 'grave maldistribution', was the problem. Although all parties, 'from the cultivator upwards'²⁴ were to blame, no treatment was too severe for profiteers and hoarders; they should be handled 'rough', and—in the words of a European member of the local assembly—this was 'also most decidedly the view which prevails in the UK and in Russia'²⁵.

In a candid unpublished account written in the famine's wake, regional commissioner for food supplies Henry Braund conceded that he, in common with 'the official classes and most business men', had initially dismissed 'the whole thing as the result of panic and "hoarding" '. The authorities in Delhi were particularly insistent on denying an 'intrinsic shortage'. And although Suhrawardy warned his audience at an important official conference about food supply in Delhi in early July that Bengal was 'in the grip of a very great famine', representatives of other Indian provinces ignored him and applauded instead the suggestion that 'the only reason why people are starving in Bengal is that there is hoarding'. But Braund also conceded that even in March some brave officials— and he named two—were predicting famine.²⁶

Bengal Governor John Herbert began to sound the alarm in private in early July²⁷, but his report that the food drive had located only 100,000 tons in stocks of 400 maunds or more was interpreted by Linlithgow as evidence of 'how much is in fact available'²⁸. By mid-July, however, Linlithgow had changed his

tune and was demanding food imports as a matter of extreme urgency, no matter 'how unpalatable this demand must be to H.M.G.' and realizing its 'serious potential effect on military operations.²⁹ Linlithgow wished to announce the imminent arrival of food shipments in his valedictory address to the New Delhi legislature.

Back in England, for months Amery had insisted that the problem was one of hoarding, and that there was 'no overall shortage of foodgrains...but a maldistribution for which responsibility is shared by all parties from the cultivator upwards'.³⁰ Amery now began to take Linlithgow's pleas seriously and argued the case at a war cabinet meeting on 31st July. But his insistence that failure to help would seriously compromise India's role as a theatre of war fell on deaf ears.³¹ The war cabinet held that 'the shortage of grain in India was not the result of physical deficiency but of hoarding' and that grain imports would not solve the problem. Against Amery's pleas, it supported the position of the minister for war transport, who was willing to offer 'no more than 50,000 tons [of wheat from Australia] as a token shipment...to be ordered to Colombo to await instructions there' and 100,000 tons of Iraqi barley³². On August 16th *Amrita Bazar Patrika* published a telling cartoon on its front page of emaciated people on a beach with ships carrying food in the distance, with caption 'A Mirage! A Mirage!'

In early September Amery was informed by the minister responsible for war transport that he had 'an actual deficiency of ships' for the operational plan prepared by the military and approved by cabinet. A few days later, General Auchinleck, head of British forces in India, echoing Amery's request, pleaded with the chief of imperial general staff in London that 'so far as shipping is

concerned, the import of food is to my mind just as if not more important than the import of munitions'³³. Later Amery tried the same argument: conditions in Bengal were becoming 'a serious menace to supply operations and the movement of troops, and also very bad for troop morale'. To no avail: on 24th September the war cabinet decided that diverting ships to lifting grain for delivery in India before the next Indian harvest would not be possible. This prompted Amery to muse in his diary that 'Winston [Churchill] may be right in saying that the starvation of anyhow under-fed Bengalis is less serious than sturdy Greeks, at any rate from the war point of view, but he makes no sufficient allowance for the sense of Empire responsibility in this country'.³⁴ Although in mid-October Amery was still referring in public to only 'scarcity verging on famine', in private he must have known that the game was up.

Suhrawardy, new to his post, was probably misled at first by the gospel of 'plenty' propagated by the colonial authorities. His early pronouncements were based on the 'theory that there is sufficiency and that is the duty of the Government to make the best of resources within the province'.³⁵ Soon enough, he realized that Bengal was in serious trouble, although he was under pressure from Delhi and London to stress 'sufficiency' and 'hoarding'.³⁶ There was little effective that he could do; he could not apply the Famine Codes³⁷ because the food required to sustain the prescribed rations was lacking. So he appointed an expert to devise a form of gruel that would contain as little rice as possible, and advised the poor to try substitute foods. He organized the food drives, described in more detail below. He announced at the end of August that rationing would be introduced in Calcutta and the industrial areas (but only in

October). He also claimed that the rest of India was gradually realizing Bengal's parlous state, and held to the hope that prices would soon fall.³⁸

The *Statesman* changed its tune in early July, with an editorial on the province's need of 'more and cheaper food'. By mid-August it was much more critical, stating that the crisis menaced Bengal 'in many ways...apparently there are months of this penury and disintegration to come'³⁹; referring to the 'growing annoyance' being caused by long speeches calling on public opinion to rally behind the official campaign against hoarding; and commenting acidly that 'presumably these loud assertions about evildoers growing rich on the people's misery have their foundation in knowledge'. 'If there are large-scale culprits' the *Statesman* held, 'they should be ruthlessly jumped on without further delay, and there will be applause for the jumper'.⁴⁰ Thereafter, the *Statesman*—and *Amrita Bazar Patrika*—adopted a policy of reporting on the extent of starvation frequently and graphically. Its photographic images of the famine made world headlines.⁴¹ On October 5th it editorialized:

We have not liked all the comments lately transmitted from Britain about the Bengal famine. Some have looked neither tactful nor true. ..There has been the further obscuring factor of war-time censorship which until a fortnight or so ago seems virtually to have withheld from the British public knowledge that there was famine in Bengal at all. But a proportion of the cabled comments seem to have been inspired (we choose this verb deliberately) by a wish to lay blame for catastrophe wholly on Indian shoulders.

By now, the *Statesman* doubted Suhrawardy's credibility, given his 'earlier disingenuousness or ill-informed propagandistic optimism'⁴². Later, it

confessed that it too had been duped into false hopes. In a strongly-worded editorial in mid-January 1944 the *Statesman* berated Amery for blaming the provincial authorities for the famine, and for claiming that 'when it became necessary for the Government of India to act, it did so promptly'. Part of the blame lay with 'Mr. Amery's own important office in Whitehall':⁴³

Throughout the months when disaster in Bengal approached, the authorities in London, as in New Delhi and Calcutta, were lavish in soothing assurances that no genuine or serious food-shortage existed in India, the perceptible signs of deaths being due merely to transient maladjustment originating mainly from defective transport. Conceivably (though we do not think so) officialdom's policy was to deliberately conceal from the Indian public ugly certainties then well known to themselves, in order that unavoidable factual dangers might not be worsened by others of a psychological sort. But in that case there is no particular reason for supposing that the realities of the situation are being candidly placed before the public now. Government cannot have it both ways.

Bengal's rice output in normal years was barely enough for barebones subsistence. An output of 9 million tons translates into 1 lb per day or less than 2,000 kcals per adult male equivalent. Even allowing for imports from neighbouring provinces and Burma, the province's margin over subsistence on the eve of the famine was slender. It is hardly surprising, then, that almost from the outset there was controversy about an issue that has dominated the historiography on the Bengal famine: the extent of the *aman* [autumn rice] harvest shortfall in late 1942 and of food availability in 1943.

Although the authorities in London and New Delhi expected political leaders in Bengal to argue the case for adequacy, the weak coalition government that ruled until late March 1943 was ambiguous on the issue. In early January 1943 its agriculture and industries minister, the Nawab Bahadur of Dacca, sought to reassure consumers by claiming that although the 1942 *aman* crop was less than the previous year's, it was no worse than that of 1940. In February, however, the Nawab announced that estimated rice production in 1942/3 (6.9 million tons) was far short of consumption requirements (9.3 million), an assessment that caused the price of rice to rise significantly. His statement, according to the Communist People's War, 'encouraged hoarding right and left^{, 44}. In March the Nawab revealed that Bengal was also short of other essential foodstuffs, 'namely wheat, *dal* [dried pulses], mustard, sugar, and salt'. As for rice, the loss of Burmese imports, military demands, the so-called 'denial policy' which had led to the requisitioning of stocks in areas vulnerable to Japanese attack, and 'hoarding on a fairly extensive scale' had produced local shortages.⁴⁵

In opposition, the Muslim League accepted that Bengal was short of rice; its leader even warned that 'the disaster of 1770 would be re-enacted' unless effective action was taken.⁴⁶ In power, its main spokesman, H.S. Suhrawardy, insisted at first that despite local difficulties and maldistribution, the province contained enough food. He promised soon to publish 'full statistical details' that would clearly show that there was 'a sufficiency', and to inform the public of far-reaching measures that would stabilize prices and supplies 'on a long-term basis'⁴⁷.

'Sufficiency' was the cornerstone of the Suhrawardy plan, announced on May 11th, which promised to identify hoards and arrange for their fair redistribution, and to open more controlled shops, where limited amounts of food would be available at subsidized prices, in Calcutta. It would also establish food committees to discover and help stamp out anti-social behaviour, help organize a Grow More Food campaign, and 'bring in supplies from outside'. Its slogan, 'do not grind the faces of the poor', was directed at hoarders.

As ministers and their supporters intensified their attacks on hoarders and speculators—in mid-April the *Statesman* called for tougher action against 'the hoarder and speculator', and suggested special courts to bring the 'evilly disposed' to book, while in mid-May a senior politician referred to them as 'national enemies'⁴⁸—opposition spokesmen blamed the authorities for 'clouding issues on the assumption that there are hoards of foodstuffs in the rural areas of Bengal which, if made available, will solve the problem'.

The numbers promised by Suhrawardy, buttressed by a 'surmise' regarding the carry-over of rice stocks from the previous year, were immediately attacked as faulty and unreliable by two widely respected scholars at a meeting organized by the opposition in Howrah. Professor Radhakamal Mukherjee held that it was 'not safe to take too optimistic a view of Bengal's food resources at this juncture and stress... psychological factors... rather than the economic factor of serious actual food shortage'. Henry Braund, who as regional food commissioner should have been in a position to know, claimed that at the end of 1942 the carry-over position was 'precarious'.⁴⁹ Less than a week later an opposition party working committee 'express[ed] deep concern at the food situation [and] called on the authorities not to juggle with figures but to admit

candidly that Bengal was a deficit province and to deal with the situation with an appreciation of the stern realities⁷⁵⁰. In the course of a lengthy debate in the local assembly in mid-July, the opposition accused ministers of obfuscating reality by focusing on carry-over and hoarded stocks, and demanded that Bengal be declared a famine area. A prominent opposition leader noted that the previous ministry had at least 'declared that there was shortage of food in Bengal and they made the Government of India accept that position', but that Suhrawardy had played a 'colossal hoax' on the people by saying there was no rice shortage in Bengal.⁵¹

By early July Suhrawardy had changed his tune somewhat:⁵²

I have found criticisms made against me that I had stated that there was no shortage when actually there was serious shortage in the Province. I do not plead guilty to the charge. It appeared to me that insistence on shortages would only increase panic and stimulate hoarding and thereby aggravate the general food scarcity and push up prices.

Later, his reply to the accusation that 'for five months he had declared that there was no shortage of foodgrains' would be that 'mere insistence on shortage would not help anyone'⁵³. Even in mid-October, when describing the crisis as 'unprecedented famine', he still added a plea to cultivators and traders to release stocks for public consumption, prompting the *Statesman* to muse that 'many will certainly disbelieve' his forecast that prices were bound to fall. The *Statesman* went on to criticize politicians for their 'disgraceful' record of 'false or ignorant prophecy', noting how Amery, Delhi, and Suhrawardy's 'inept'

predecessors had 'proclaimed that food-shortage in India and Bengal was practically non-existent'.⁵⁴

In Bengal, socioeconomic status broadly overlapped with religion, and pre-existing religious tensions conditioned the positions adopted by various parties during the famine. Pre-partition Bengal had a Muslim majority. The Muslim share was highest in the east of the province (Map 3). Where Muslims were in a minority, as in Calcutta, they tended to live in residentially segregated areas. Moreover, the sectarian divide was widening over time. In Calcutta, for example, the Muslim share of the population remained at about one-in-four between 1901 and 1941, but the coefficient of variation in the Muslim share across the city's districts rose from 0.50 in 1901 to 0.65 in 1921 and 0.71 in 1941.

Bengali Muslims were poorer and less educated, but well mobilized politically. The poorest strata among the peasantry were disproportionately Muslim, and Muslim leaders prominent in 1943 such as A.K. Fazlul Huq, H.S. Suhrawardy, and Khwaja Nazimuddin had cut their teeth on populist communal politics in the 1920s and 1930s, supporting pro-peasant land reforms and controls on moneylending. Hindu politicians were more likely to represent landlord and trading interests, as well as the genteel and literate *bhadralok*. Communal rioting took on an economic hue, with Muslim wrath directed particularly against Hindu and Marwari traders and moneylenders.⁵⁵

Communal tensions had escalated in the twentieth century.⁵⁶ Muslims, broadly speaking, sided with the British authorities as the Hindu intelligensia rejected the Raj. After 1939 the Muslim League, representing the majority of Muslims, supported the war effort, while Hindus were unenthusiastic at best.

There were also divisions within the two main confessional groups, however. Fazlul Huq, first minister of Bengal from 1937 to 1943, was more willing to collaborate with Hindu politicians, and not trusted by the colonial authorities, who connived in the collapse of his weakening coalition in late March 1943 and its replacement by a more pliant Muslim League administration, headed by Khawaja Nazimuddin.

'The Hindu section of the traders is dominant in the internal economy of Bengal', noted P.C. Joshi, general secretary of the Communist Party of India, in *People's War*.⁵⁷ Moneylending was mainly in the hands of Hindu *banias* (traders), *mahajans* (usurers), and landowners, and the Bengal Moneylenders' Act of 1940 had hit them hard.⁵⁸ Thus the hoarders targeted by the Muslim League during the famine were likely to be Hindus. While the League was criticised for giving contracts to the trading firm of Isphahani Brothers, prominent Muslim League supporters, the Hindu Mahasabha attacked the government and 'big firms, particularly non-Bengalis' for holding on to excess stocks. The pro-*bhadralok* Mahasabha also claimed that repeated warnings against hoarding only served to create panic especially among 'the poor middle class people who were obliged to keep small stocks to meet the present abnormal situation'.⁵⁹ Religious affiliation thus influenced the positions taken by leading actors during the famine, and also the attribution of blame, both in its wake and subsequently.

3. MARKETS, PHANTOM HOARDS, AND LAND SALES:

I think, looking back, that the adoption of the psychology or gospel of 'plenty' in Bengal was a mistake.

Henry Braund, colonial administrator⁶⁰

In late 1942 the crisis in Midnapur and panic about the *aman* harvest caused both the price of rice and its coefficient of variation across Bengali markets to rise abruptly (Figure 1). This placed so much pressure on markets in neighbouring Bihar that its governor felt 'compelled to prohibit the export of any food-stuffs from Bihar except under permit'.⁶¹ Prices then settled briefly, but the removal of price controls and the Nawab of Dacca's declaration caused them to take off again in March. In Calcutta the price of rice rose from Rs. 10 per maund in November 1942 to double that five months later. In late March the price reached Rs. 29 in Rangpur and Rs. 27 in Cox's Bazaar, and it hovered between Rs. 25 and Rs. 30 per maund in Patgram in the extreme north of the province. In early April rice cost Rs. 23 in Comilla and over Rs. 25 in Dacca.⁶² At the end of April Fazlul Huq challenged his successor to bring down the price of rice, since 'if it was the fault of his [i.e. Huq's] ministry that the price of rice had gone up, let Sir Nazimuddin [his successor] bring it down'⁶³.

[FIGURE 1 ABOUT HERE]

The imposition of price controls on 20th August 1943 led to rice shortages even in Calcutta. Many dealers found it virtually impossible to obtain rice;

others disposed of their stocks before the order came into effect and did not replenish them because they could not even purchase rice at Rs. 30 per maund, the maximum sale price. The ordnance also forced many rice dealers to close shop. Meanwhile Suhrawardy warned traders against withholding stocks from the market.⁶⁴

Between August and December 1943 a significant gap separated official and black market prices.⁶⁵ The black market price of rice rose to Rs. 40 per maund in Calcutta, but by mid-October rice was being sold openly at Rs. 50 to 60 in the eastern division of Mymensingh, and soon would reached Rs. 80 in parts of east Bengal.⁶⁶ Prices began to fall as soon as producers were reassured about the quality of the new *aman* crop. Traders began to dispose of existing stocks of old rice at Rs. 18 to Rs. 25 per maund for rice of medium quality. While considerable shortages persisted in some areas soon the new crop began to appear in bazaars in the interior in late November and was being sold at about Rs. 16 per maund. The general opinion seemed to be that prices would continue to drop unless the government proceeded to buy up the crop, in which case cultivators and speculators would hold, driving the price back up again.⁶⁷

A few weeks later, however, supplies had dried up again in the eastern division of Mymensingh, where dealers from Dacca and elsewhere were buying it up at prices above the controlled rates.⁶⁸ In mid-January 1944 the price of rice, which had fallen from Rs. 40 a maund to Rs. 11 and Rs. 12 as new grain began to come on the market a few weeks earlier, rose to Rs. 22, or Rs. 5 above the controlled price. Official sources, however, claimed that the price of rice was in fact falling; they reported prices of Rs. 15 at Howrah, Rs. 11-8 at Contai, and Rs. 16-4 at Calcutta on January 17th, against prices of Rs. 17, Rs. 12, and Rs. 17-8 a

week earlier.⁶⁹ Government purchases of *aman* rice may have been partly to blame for any rebound; opposition spokesmen held that distress was persisting due to a 'continued rise in the price of rice and paddy'. In response to Suhrawardy's denial that prices were rising 'throughout Bengal'—only in certain deficit areas—opposition spokesman produced detailed evidence on price rises in the *mofussil* (rural districts).⁷⁰

The relative buoyancy of prices in early 1944, given the general impression that the late 1943 *aman* harvest had been a good one, argues against the presence of excessive hoarding on a large scale at the height of the famine. It would be silly to claim that no merchants or traders tried their hand at speculation; the point is that had the famine-inducing prices of summer and autumn 1943 been mainly due to hoarding, then the release of hoarded rice thereafter would have forced prices down more than they actually fell. In early 1944 the *real* price of rice was roughly the same as two years earlier.

Three further points regarding prices bear noting. First, the literature has focused on price movements over time, paying less attention to price variation across the province. As noted earlier, the rise in the black market price of rice was much greater in east than in west Bengal at the height of the crisis, suggesting intra-provincial as well as inter-provincial balkanization. Second, the war forced up the price of rice and wheat across the subcontinent (Figures 2-4). Increases were relatively mild until 1942/3, but big in 1943/4. Figures 2 and 3 show that the national market for rice became more segmented from 1940/1 on, while that for wheat became so only in 1943/4. Note too how the gap between rice prices in Bengal and the rest of India (Delhi apart) widened in 1943/4. The wide range of wholesale prices quoted for rice in early June 1943—for example,

Rs. 30-8 per maund in Chandpur-Puranberar (Bengal), Rs. 18-2 in Purnea (Bihar), Rs. 12-10 in Bareilly (U.P.), Rs. 6-4 in Larkana (Sind)⁷¹—suggests that the balkanization of Indian markets exacerbated Bengal's supply problems during the famine.

[FIGURES 2-4 ABOUT HERE]

Such balkanization ruled out one of the remedies emphasized by the classical economists, i.e. the cushion provided by free trade when harvests failed, as the balance of trade in foodstuffs adjusted to relative price movements.⁷² Evidence from pre-industrial Europe suggests that markets functioned more or less normally during famines there.⁷³ Certainly, there was no prospect of this happening in Bengal in 1943. The 'basic plan' devised in Delhi late 1942 envisaged Bengal obtaining 370,000 tons of rice—about four per cent of its annual requirements-from the rest of India in the year beginning December 1942, whereas in the seven months from December 1942 it actually received 44,000 tons.⁷⁴ During the famine, the reluctance of neighbouring provinces to supply Bengal was a frequent bone of contention, well captured by the remark of the governor of neighbouring Bihar, who had just imposed an embargo on food exports from that province. 'By conviction', he confided to Linlithgow, 'I hold with Adam Smith but in a crisis like this I am prepared to accept 100% control.⁷⁵ Symptomatic, too, was the response of representatives of the other provinces to Suhrawardy's statement at an All-India Food Conference in July that Bengal was 'in the grip of a very great famine, probably of a size and nature that may be equal to the Orissa famine of 1867': they

greeted the suggestion by another delegate that 'the only reason why people are starving in Bengal is that there is hoarding' with applause.⁷⁶

[FIGURES 5 AND 6 ABOUT HERE]

Third, prices in general rose during the famine. A cost-of-living index for Bengal before and during the famine is lacking, but cost of living indices for the working classes in three northern Indian cities report increases ranging from 105 to 125 per cent between January 1942 and January 1944.⁷⁷ Figure 5, which summarizes market price data for a range of food items (meat, vegetables, fruit) as reported in the *Statesman* between January 1943 and March 1944, confirms that price rises in Bengal were by no means confined to rice.

The 'food drives' of June and August 1943 followed from the hoarding hypothesis. The first drive, which excluded the twin cities of Calcutta and Howrah, began on June 7th.⁷⁸ Local food committees, assisted by thirty thousand temporary workers, were charged with taking stock of resources available and 'arranging for their equitable and amicable distribution amongst the village population as a whole'. Suhrawardy, who described the food committees as an extension of the traditional *panchayat* (village assembly), promised not to intervene except 'where persuasion has failed, or where a surplus in one area has to be transferred to a deficit area'.⁷⁹ He promised that his officials would 'enter every household and look under every *taktaposh* and...drag out the hoards', and his officials held that the food drive was responsible for reported falls in the price of rice in a 'number' of districts in early June.⁸⁰ The *Statesman*

backed Suhrawardy's attempts at 'getting out, from wherever it is, such hoarded food as exists...with what result is not yet clearly seen', and lauded his contribution to the assembly debate on the food situation.⁸¹

The drive unearthed little rice, however. At first, Suhrawardy claimed that boats and carts had been used to conceal stocks; some, he said, had been shifted 'into jungles'.⁸² Soon however, it was clear that the vast majority of the rural population was short of food, and that the drive had laid bare 'an acute shortage'. Unless large stocks were to be found in and around Calcutta, warned ABP, the official 'thesis' of Suhrawardy and the Government of India would be 'completely demolished'.⁸³ Under pressure to provide disaggregated data on the outcome, Suhrawardy admitted that while he had no statistics, 'the general picture was that in most places a deficit had been reported'. Nor would Suhrawardy, whose mantra had by now switched to 'To hope for the best and to prepare for the worst', reveal how any surpluses were disposed of.⁸⁴ Nalini Sarkar of the pro-Congress Swarajya Party conceded the drive's usefulness as an exercise in statistical intelligence, but wanted to know why the public had not yet been informed its outcome, and whether enough hoarded food had been located to meet 'the present situation'. Given the government's heavy emphasis on hoarding, it was important that it published the results of the drive soon. Sarkar, a prominent business leader, did not believe that 'very big' stocks existed.⁸⁵

Criticism that the exclusion of Calcutta and Howrah led to a food drive directed against urban hoarders in early August 1943. That two-day drive employed police attached to the Department of Civil Supplies to deal with large merchants, local police to deal with small merchants, and authorized officers

drawn from the local civil service to deal with householders and smaller traders. It involved a total of 2,850 officers visiting 250,000 units, or an average of nearly 100 units each. Each policeman or official was accompanied by two volunteers, in order to help and 'generally to protect the interests of the people'. The drive lasted from dawn to dusk on both days. In the case of merchants or shopkeepers stocks of 20 maunds or more required a licence. The official view was that 1.25 maunds per person (excluding children under 4) was sufficient for the rest of the year.

August 7th and 8th 1943 were declared public holidays in order to facilitate house-to-house inspections in the two cities. The 'drive' was explained as a means of ascertaining stocks. According to the *Statesman*, 'in several houses officers discovered stocks far in excess of the unit's requirements and these were duly 'frozen', i.e. the groups were directed not to remove or in any way dispose of them until further notice'. The search also unearthed 'numerous instances of stocks above the amount permitted'. In the following days the *Statesman* was silent on any unearthed hoards, although its European op-ed columnist continued to insist on the vital need to unearth 'the millions of tons which would be required for consumption in the Provinces in which they were hidden'⁸⁶. Within a fortnight, however, Suhrawardy was conceding that in Calcutta stocks in the hands of consumers, traders, and employers were 'not considerable'⁸⁷. The 'food-search' had revealed enough for a month's subsistence in the city, including stocks in the hands of government officials and employers.⁸⁸

In October a joint statement from the Bengal, Indian and Marwari Chambers of Commerce expressed doubts 'whether apart from the stocks which the government are fully aware and are virtually under their control, there are any appreciable undeclared stocks held by merchants in Calcutta or outside'⁸⁹. This assessment tallies with a confidential memorandum prepared by the Government of India Food Department, and forwarded by Linlithgow to Amery on 7th September 1943, which found:⁹⁰

The much-heralded 'anti-hoarding' drive in the Bengal districts and in Calcutta has achieved very little that is positive. The Bengal Government themselves do not claim that it is more than a 'food census', disclosing stocks in the districts amounting to rather more than 300,000 tons. The Bengal Government emphasises that this is 'stock', and is in no sense 'surplus', except to a negligible extent. In Calcutta itself practically no stocks were disclosed which would be classified as 'hoards', or were held in contravention of the Foodgrains Control Order.

The relatively small number of traders fined during the spring and summer of 1943 is further circumstantial evidence against large-scale speculative hoarding. Throughout the crisis the authorities campaigned against the twin offences of hoarding and profiteering. Traders who withheld stocks without declaring them, and traders who made a false declaration, were liable to fines, imprisonment, and the confiscation of their stocks. Retailers charging more than the controlled price were similarly liable and might be barred from carrying out business in future or deprived of supplies of key items such as coal and kerosene. The non-trading hoarder, whose motive was fear, was not immune, but the main target of the campaign was the creature who, 'for sheer greed, grabs and withholds from circulation the food of his fellowmen'.⁹¹

In the circumstances, it is striking how relatively few traders were charged or convicted for hoarding and profiteering in rice during 1943. Thus, in the week ending April 7th 1943 thirty-nine cases of profiteering were detected; eighteen related to sugar, nine to kerosene, eight to coal, two to salt, and two to *atta*. In the following week 104 cases were dealt with, of which fifty-five related to sugar, twenty-five to kerosene, twenty to coal, one to mustard oil, and three to medicines. During the week ending April 28th, the Ministry of Civil Supplies proceeded against eighty-two people for profiteering and hoarding; twenty-nine cases related to sugar, and twenty-seven to coal. There were thirty-eight prosecutions for hoarding and profiteering in the week ending May 14th, of which nineteen related to coal and ten to sugar. Of the nine people convicted for profiteering in Calcutta on May 27th, one was fined for hoarding rice, five for profiteering in sugar, and three for profiteering in coal and coke. The total number of prosecutions in June came to 174, of which forty-eight related to sugar, thirty-two to coal, and thirty-four each to oil and kerosene. The total number of prosecutions for profiteering and hoarding reached 622 in July; 130 related to atta and flour, 115 to sugar, ninety-two to kerosene, eightyone to coal, fifty-two to mustard, and only forty-three to rice.⁹² Again, of the 168 prosecutions for hoarding and profiteering in Calcutta in December 1943, twenty-eight related to kerosene, twenty-eight to medicines, twenty-one to coconut oil, eighteen to paper, and only fifteen to rice.⁹³ This would suggest that the authorities had no difficulty in discovering hoarders of other basic household commodities, who greatly outnumbered hoarders of rice.

The huge increase in forced land transfers during the famine is also consistent with a poor harvest. Hundreds of thousands of *ryots* were forced to sell off some or all of their land; 1.7 million land transfers were made in 1943, and 22.9 per cent of families were forced either to sell or mortgage all or part of their paddy land.⁹⁴ Chattopadhaya and Mukerjea noted that the price of paddy land varied from Rs. 150 to Rs. 200 'or a little more' in different areas in 1939; in 1943 their surveyors noted average prices of Rs. 258 in Contai, Rs. 184 in Diamond Harbour, Rs. 175 in Tangail, and Rs. 352 in Feni. Given that between 1939 and 1943 the cost of living more than doubled and the price of rice rose by considerably more⁹⁵, this indicates a reduction in the real price of land. Figure 7 shows that sale values did not rise with sales; given the nominal (though not real) rise in the price of land, the average size of land transfers must have fallen during the famine.⁹⁶

This implies that most of the sales were by smallholders normally reliant on agricultural labour to make ends meet, and who needed the cash to buy food. This is hardly surprising, but even P.C. Joshi, leader of the Communist Party, conceded that the middle peasantry also suffered in 1943. 'How is it', he asked, 'that even the middle peasant has to sell off; where did his rice go?' Joshi's answer—that 'he got humbugged by the hoarder and tempted by the high price offered' and 'began sinking to the status of a pauper'—lacked conviction. But that *nobody* had enough food in Joshi's view, except a small minority, 'the zamindars, the rich jotedars, and the mahajans', surely implies a general supply shortage. The zamindars were big landlords and the jotedars major landholders

and employers of labour, while the mahajans belonged to a business caste that specialized in moneylending.⁹⁷

The Communists played a curious game during the famine. The party's support for the war effort led to its legalization in 1942. Its organizational and relief work won it plaudits during the famine, although its anti-Congress stance and uncritical support for the war alienated many. The party and its affiliates vigorously supported the food drives,⁹⁸ and even after the authorities conceded that there was a food availability problem, the party weekly *People's War* continued to target the hoarder. It reserved its greatest scorn for S.P. Mookerjee and the Hindu Mahasabha: 'Dr. Shyamaprosad [Mookerjee] gives the lead, the Hindu hoarders pay the cash and call the tune, the Fifth Column gives the cadres'. Although Mookerjee had courted the support of the masses by organizing relief on communal lines, his policies helped 'not the Hindus of Bengal but only its Hindu hoarders', and he relied on 'Fifth Column youngsters' from the Forward Bloc, Anushilan, etc' to dole out the relief.⁹⁹ Asok Mitra later castigated the party for its 'tame emphasis on the need to prevent food riots and unearth hoarding', noting that 'with the access they enjoyed at that time to information, they should have known that if anyone were hoarding to the point of forcing a famine on the country it was the central and provincial governments and their purchasing agents^{, 100}.

Finally, Table 1 describes the impact of the famine on household debt by occupational group. The proportion of families in debt virtually doubled between 1943 and 1944. The 'Other Agricultural' category refers to rent receivers and non-cultivating landowners (including widows). No group seems to have been

immune; curiously, the table implies no striking difference between agriculturalists and non-agriculturalists.

[FIGURE 7 AND TABLE 1 ABOUT HERE]

To summarize. There *was* a food availability problem, though its extent cannot be resolved with any accuracy. Some believed that the true situation was even worse than implied by the Nawab Bahadur of Dacca's declaration in February 1943, and that some of the *aman* crop in west Bengal rotted only after it had been harvested, but against this there is the assessment of a leading merchant and Muslim League politician that the shortage in 1943, taking carryover and the likely size of the *aus* harvest into account, was only one million tons.¹⁰¹ In normal times, Bengal might have been resilient enough to cope with such a shortfall; in 1943, given military requirements and war-related disruption to trade and communications, this was a disastrous deficit. That there was a deficit may be inferred from informed commentary at the time, from the failure of the food drive, and from the high incidence of forced land sales by starving peasants.

4. THE REGIONAL DIMENSIONS OF THE FAMINE:

As noted earlier, the impact of the Bengal famine was quite uneven by region (Maps 1 and 2).¹⁰² Calculations of its demographic toll are constrained by reliance on imperfect censal and civil registration data. Yet estimates of vital rates before and during the famine imply that nearly two-thirds of the excess

mortality between mid-1943 and mid-1944 and nearly three-quarters of the reduction of births in 1944 occurred in east Bengal, in divisions constituting present-day Bangladesh¹⁰³ (Maps 4 and 5, based on Maharatna 1996).

Two factors affecting the late 1942 aman crop—the Midnapur cyclone and an outbreak of brown rust disease (*Helminthosporium oryzae*)—were mainly confined to western Bengal. The role of brown rust disease is still controversial. According to Amery its effect had not been recognized locally until about April 1943. Some hold that its impact was far greater than conceded at the time, however, with plant pathologist S.Y. Padmanabhan claiming that 'nothing as devastating as the Bengal epiphytotic of 1942 has been recorded in plant pathological literature.¹⁰⁴ Official data, warts and all, confirm that the decline in agricultural output was proportionately greatest in the west (Map 6). The extent of the damage caused by the fungus was not realized until the crop had been harvested; certainly the manner in which the cyclone dislodged flowering paddy plants in the coastal west increased their vulnerability to fungus. Final crop forecasts by the director of agriculture¹⁰⁵ imply massive declines of over half relative to 1941 in the 1942 aman crop in the divisions of Burdwan, Bankura, Midnapur, Rajshahi, Rangpur, and Malda. Harvest deficits in divisions normally in deficit, located mainly in the east (Map 7), were smaller. Map 8 describes the variation in literacy across the province, as represented by the proportion of the adult population which was literate; its south-north gradient hardly reflects relative famine intensity either.

This pattern described in Map 2 squares reasonably well with that of excess deaths (Map 4), whereby the five worst-affected divisions were Midnapur, Howrah, Murshidabad, Dacca, and Tippera.¹⁰⁶ Map 5 indicates that the declines

in births were greatest in Dacca, Pabna, Faridpur, Tippera, Mymensingh, and Murshidabad (in that order). The demographic outcome in the largely urban and industrial division of Howrah muddies the water. Although births hardly declined in Howrah—indicating that the crisis was less severe there—the death rate rose considerably. This anomalous outcome is perhaps explained by the deaths in Howrah of migrants from nearby rural areas. However, as noted above, Map 2 singles out Howrah, and the division is also included in an October 1943 assessment of the worst-affected areas by the acting governor of Bengal.¹⁰⁷

The following analysis, loosely replicating that by Mokyr and others for mid-nineteenth century Ireland,¹⁰⁸ is based on data from twenty-four of Bengal's divisions, and excludes the more urbanized divisions of Howrah and Hooghly. The dependent variables are the changes in the birth and death rates.¹⁰⁹ *DDRA* is the increase in the death rate in July 1943-June 1944; *DDRB* also includes excess deaths in July-December 1944. *DBR* is the reduction in the birth rate in 1944. These are regressed on:

MAGQ: agricultural output per head
DAGQ: proportionate change in agricultural output
MUSLIM: Muslim percentage of the population
DENSITY: population per square mile
PCURB: urban percentage of the population
CDR: the crude death rate before the famine
YOUNGLIT: child and young adult literacy rate
PRATIO: ratio of rice price during the famine to its pre-famine level

The variables and the correlations between them are described in Tables 2 and 3. The outcome of the regression analysis is described in Tables 4 and 5.

In Table 4 the results using *DDRB* are somewhat stronger than those using *DDRA*. The only variables to pack a significant statistical punch were *DENSITY41*, *CDR*, *DBR*, and *YNGLIT*. High population density and a high non-crisis death rate were associated with bigger increases in the death rate. Higher literacy rates among the young—a proxy for living standards in the recent past—had the opposite effect. Table 5 describes the outcome of modelling reductions in the birth rate; the results are broadly analogous.

Variables with small coefficients and little or no explanatory power included *PCURB*, *DAGQ*, and *PCMUSLIM*. The failure of *PCMUSLIM* does not come as a surprise, given its high correlation with population density. The failure of *DAGQ* supports an entitlements approach to the crisis in the following sense: eastern divisions experienced lower proportionate declines in the *aman* crop in 1942, but they were deficit provinces. The huge gap, documented earlier, between black market prices in east and west Bengal after July 1943 implies that market forces failed to move rice from where it was in relative surplus to where it was in relative deficit at the height of the crisis. Our price data fail to capture the market segmentation that became much more of a problem after mid-1943; perhaps this explains why data on rice prices by division up to mid-1943 (*PRATIO*) fail to account for the variation in births or deaths.

5. CONCLUSION:

The Bengal famine is sometimes described as India's last, although most of its victims lived in the mainly Muslim area that would become East Pakistan between 1947 and 1971 and thereafter Bangladesh. The famine has become paradigmatic as an 'entitlements famine', whereby speculation born of greed

and panic produced an 'artificial' shortage of rice, the staple food. Here I have argued that the lack of political will to divert foodstuffs from the war effort rather than speculation in the sense outlined was mainly responsible for the famine. Those in authority at the time knew that there was a shortfall. The war cabinet in London chose not to act on it. Churchill's lack of empathy for India and 'all to do with it' mattered; his immediate reaction to Amery's last-ditch plea for more shipping on November 10th was 'a preliminary flourish on Indians breeding like rabbits and being paid a million a day by us for doing nothing about the war'.¹¹⁰

Neither price movements nor the outcome of the food drives of the summer of 1943 support the case for massive hoards of rice being kept from the market in the hopes of further price increases. Markets did 'fail' in another sense, however: the disruption of transport facilities led to huge increases in the price of rice in the east of the province, which suffered most during the famine, during the second half of 1943. The problem in Bengal in 1943 was not internecine strife, but the failure of the imperial power to make good a harvest shortfall that would have been manageable in peacetime. The famine was the product of wartime priorities.

Occupational Group	Sampl	le size	% Families in debt			Average loan per family [Rs.]		
	1943-4	1946	1943	1944	1946	1943	1944	1946
Cultivator	7,005	22,204	34.6	61.7	63.2	90.0	88.4	159
Agricultural Labour	2,463	5,148	21.8	50.5	49.3	56.9	51.8	71
Other Agricultural	907	2,604	33.9	56.8	56.0	115.1	115.9	306
All Agricultural	10,375	29,956	31.4	58.6	60.0	87.6	83.3	158
Non- Agricultural	4,394	16,658	25.6	52.6	42.1	79.5	79.2	120
Total	14,769	46,614	29.8	56.9	53.7	85.5	82.2	148

	TABLE 2. CORRELATION MATRIX										
						-	501110				254244
DDRA	DDRA	DDRB	DBR	MAGQ	DAGQ	PCURB	PCMUS	YNGLIT	CDR	PRATIO	DENS41
	1.00										
DDRB	.784	1.00									
DBR	417	.075	1.00								
MAGQ	070	.159	.413	1.00							
DAGQ	.168	104	429	700	1.00						
PCURB	.108	.055	.090	214	055	1.00					
PCMUS	.176	.081	328	214	.326	527	1.00				
YNGLIT	.077	271	094	404	.195	.261	.037	1.00			
CDR	513	628	250	.014	.030	026	144	251	1.00		
PRATIO	141	190	.129	.597	405	144	.031	.093	.041	1.00	
DENS41	.643	.328	593	441	.443	110	.605	.374	443	173	1.00

TABLE 3. SUMMARY STATISTICS							
	Mean	SD	Min	Max			
DDRA	93.90	47.70	13.83	178.02			
DDRB	121.17	66.12	20.40	271.83			
DBR	-39.23	15.98	-65.75	-0.52			
MAGQ	93.60	25.03	41.5	152.10			
DAGQ	-32.86	21.75	-65.23	19.55			
PCURB	5.73	5.87	1.08	24.41			
PCMUS	52.98	26.26	2.42	83.93			
YNGLIT	6.72	2.15	3.18	11.55			
CDR	20.93	4.07	12.80	29.50			
PRATIO	4.49	0.69	2.78	5.95			

		DDRA		DDRB			
		II	III	IV	V	VI	
MAGQ	.737			.803			
DAGQ	.320			072			
DENSITY41	.128 **	.085 **		.083 *	.168 **		
PCURBAN	1.97			2.91			
PCMUSLIM	417			078			
YNGLIT	-4.73 *	-4.89 **	-3.47 **	-14.5 *	-16.4 **	-14.9 **	
DBR			-1.81 **		2.16 **	694	
CDR	-2.43	-3.60	-8.24 **	-9.05 **		-12.9 **	
PRATIO	-6.88			-20.5			
Ν	24	24	24	24	24	24	
Prob > F	.017	.002	.000	.005	.006	.000	
Adjusted R ²	.467	.447	.516	.504	.378	.556	

TABLE 5. MOL	TABLE 5. MODELLING THE VARIATION IN LOST BIRTHS						
	VII	VIII	IX				
MAGQ	.088						
DAGQ	028						
DENSITY41	049 **	044 **	034 **				
PCURBAN	695						
PCMUSLIM	.070						
YOUNGLIT	1.98 **	.645					
DDR			116 **				
CDR	-2.41 **	-2.47 **	-2.89 **				
PRATIO	-4.22						
N	24	24	25				
Prob > F	.002	.000	.000				
Adjusted R ²	.634	.637	.702				

TABLE 4. MODELLING THE VARIATION IN EXCESS MORTALITY

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Weather	Period	S-O-N Rainfall	SDs from S-	Administrative
Station		(0.1 mms.)	O-N Mean	District
Alipur	1901-70	6589	+1.15	S 24 Parganas
Sagar Island	1901-70	9009	<mark>+1.51</mark>	S 24 Parganas
Sandheads	1901-70	4133	+0.27	S 24 Parganas
Budge Budge	1901-70	6479	+1.27	S 24 Parganas
Borsat	1901-59	3721	-0.01	N 24 Parganas
Basirhat	1901-70	6722	<mark>+1.87</mark>	N 24 Parganas
Gosaba	1901-56	5921	+0.87	S 24 Parganas
Krishnanagar	1901-70	5463	+1.36	Nadia
Ranamagat	1901-67	3657	+0.38	Nadia
Haringhata	1908-66	4308	+0.53	Nadia
Berhampore	1901-70	7946	<mark>+2.70</mark>	Murshidabad
Azimganj	1901-61	4171	+0.46	Murshidabad
Potkabari	1901-56	3965	+0.89	Murshidabad
Kalyanganj	1906-54	4509	+0.96	Murshidabad
Bharatpur	1931-60	4724	<mark>+1.65</mark>	Mursihdabad
Gangarampur	1901-68	5929	+0.87	Dakshin Dinajpur
Itahar	1901-62	7152	<mark>+1.58</mark>	Uttar Dinajpur
Raiganj	1901-59	3810	+0.01	Uttar Dinajpur
Balmghat	1901-70	7948	+1.22	Dakshin Dinajpur
Jalpaiguri	1901-70	4262	-1.05	Jalpaiguri
Buxa	1901-68	8331	-0.59	Jalpaiguri
Kalchini	1901-66	7107	-0.14	Jalpaiguri
Darjeeling	1901-70	5026	-0.27	Darjeeling
Kalmipong	1921-70	3589	-0.44	Darjeeling
Siliguri	1901-67	6355	-0.62	Darjeeling
Mongpoo	1901-70	4060	-0.60	Darjeeling
Kurseong	190-170	7280	-0.24	Darjeeling
Bagdogra	1901-47	5654	+0.53	Darjeeling
Malda	1901-70	5195	+0.67	Malda
Gazole	1901-57	5486	+0.80	Malda
KB Aerow	1901-70	5441	-0.60	Koch Bihar
Dinhata	1901-58	5059	-0.40	Koch Bihar
Mathabhanga	1901-67	5113	-0.52	Koch Bihar
Mekliganj	1901-55	4760	-0.67	Koch Bihar
Tufamganj	190-165	6005	-0.46	Koch Bihar
Asansol	1919-70	3505	+0.13	Bardhaman
Burdwan	1901-70	5165	+1.07	Bardhaman
Kalna	1901-63	3937	+0.78	Bardhaman
Katwa	1901-66	4716	+1.05	Bardhaman
Suri	1901-70	4519	+0.80	Birbhum
Bolpur	1901-66	4267	+1.03	Birbhum
Mayureshwar	1934-61	3653	+0.99	Midnapore
Bankura	1901-70	4144	+0.62	Bankura
Khatra	1901-63	4712	<mark>+1.53</mark>	Bankura
Indus	1901-66	5032	<mark>+1.61</mark>	Bankura
Kotalpur	1901-58	4239	+0.63	Bankura
Onda	1901-57	4598	<mark>+1.83</mark>	Bankura
Gangajalghati	1901-61	3497	+0.51	Bankura

TABLE A1. Rainfall in Bengal, September-November 1942

Sanamukhi	1901-63	5921	+2.63	Bankura	
Taldangra	1915-70	5631	+1.11	Bankura	
Indpur	1915-67	3617	+0.54	Bankura	
Barjora	1918-63	4130	+1.51	Bankura	
Simlapal	1918-69	5037	+1.31	Bankura	
Majhia	1918-55	4226	+1.31	Bankura	
Palasdanga	1918-55	4617	+0.96	Bankura	
Chatna	1919-02	4297	+0.98	Bankura	
Ranibandh					
	1919-70	4607	+1.33	Bankura	
Saltora	1919-68	2728	-0.01	Bankura	
Ambikanagar	1919-44	3800	+0.98	Bankura	
Patnasayar	1938-61	5354	+1.18	Bankura	
Deuli	1941-63	3718	-0.15	W Midnapur	
Saranga	1915-56	5018	<mark>+1.87</mark>	W Midnapur	
Midnapore	190-170	7498	+2.30	W Midnapur	
Contai	1901-50	9850	+2.30	E Midnapur	
Tamluk	1901-70	7539	+1.36	E Midnapur	
Panskura	1901-70	4887	+0.69	E Midnapur	
Gopiballabhpur	1914-54	8041	+2.29	E Midnapur	
S Belpahari	1909-69	4187	+0.64	E Midnapur	
Narayangarh	1911-63	3742	+0.01	E Midnapur	
Ramnagar	1910-67	8013	+1.42	E Midnapur	
Kolaghat	1922-70	3253	-0.13	E Midnapur	
Balichak	1922-69	7135	<mark>+1.87</mark>	E Midnapur	
Kharagpore	1923-70	6697	<mark>+1.52</mark>	W Midnapur	
Amlagora	1901-56	5589	<mark>+1.58</mark>	W Midnapur	
Serampore	1901-63	4107	+0.16	Hooghly	
Hooghly	1901-62	4783	+0.76	Hooghly	
Arambagh	1901-68	5456	<mark>+1.65</mark>	Hooghly	
Chandktala	1928-61	5344	+0.08	Hooghly	
Tentulia	1931-56	5939	+1.99	Hooghly	
Knanakul	1929-65	5633	+1.03	Hooghly	
Tarakeshwar	1932-64	5957	+1.46	Hooghly	
Howrah	1901-48	6142	+1.60	Howrah	
Uluberia	1901-68	7139	+2.35	Howrah	
Purulia	1901-70	3107	-0.16	Purulia	
Raghunathpur	1901-70	4099	+0.86	Purulia	
Barabazar	1901-68	5329	+1.55	Purulia	
Jhaldah	1901-61	3691	+0.27	Purulia	
Manbazar	1901-62	4744	+1.26	Purulia	
Bagmandi	1936-62	3607	-0.07	Purulia	
Jaipur	1936-55	2019	-1.33	Purulia	
Para	1936-68	2678	-0.60	Purulia	
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[FIGURES 1-6 AND MAPS 1-8 FOLLOW]

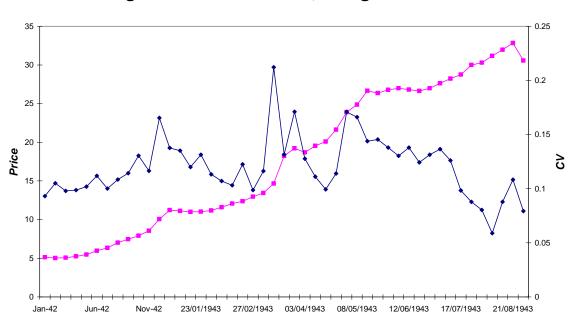
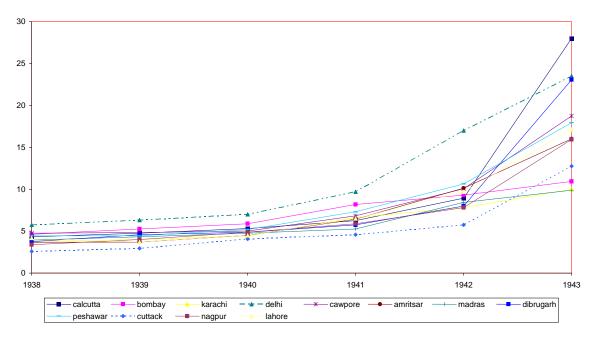


Figure 1. Price and CV, Bengal 1942-43

Fig. 2. Rice Prices in Twelve Markets, 1938/9 to 1943/4 (Rs. per Md.)



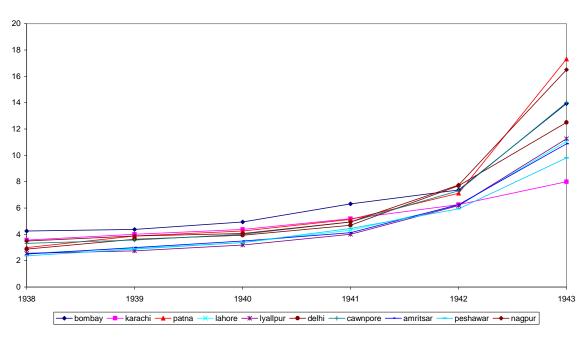
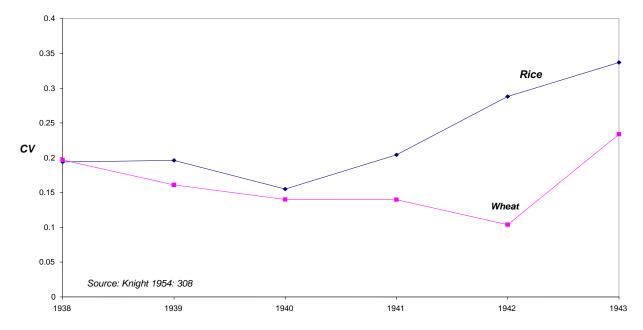
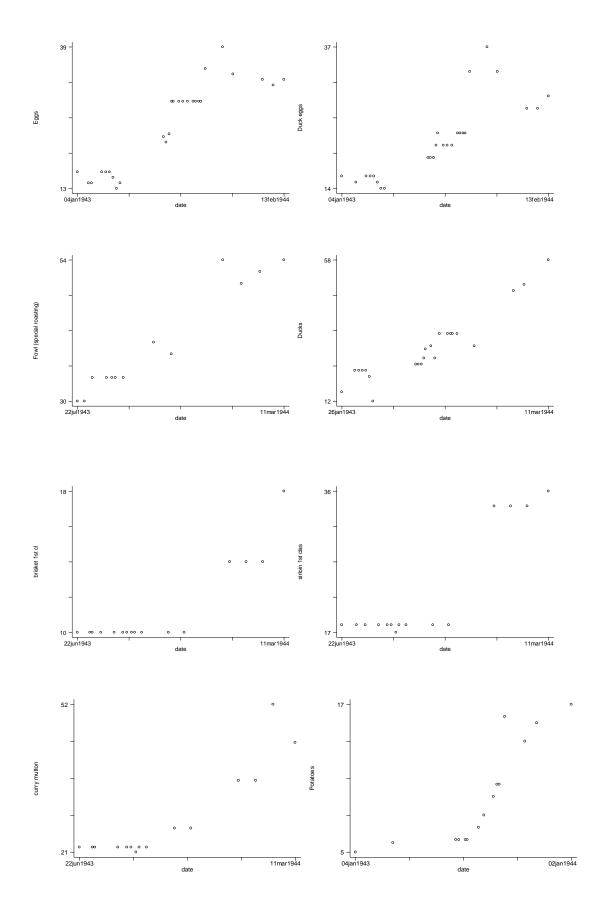


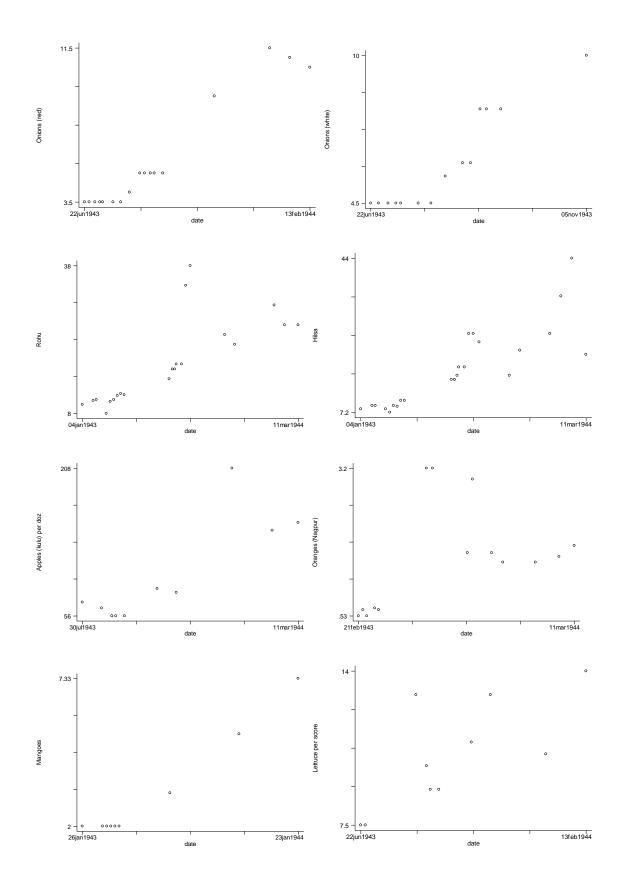
Fig. 3. Wheat Prices in Ten Markets, 1938/9-1943/4 (Rs. per Md.)

Fig. 4. CV of Rice and Wheat Prices 1938/9 to 1943/4









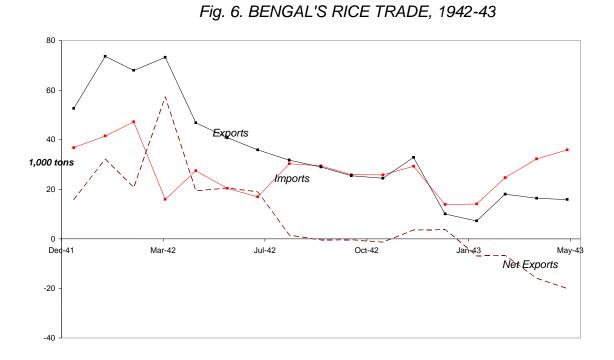
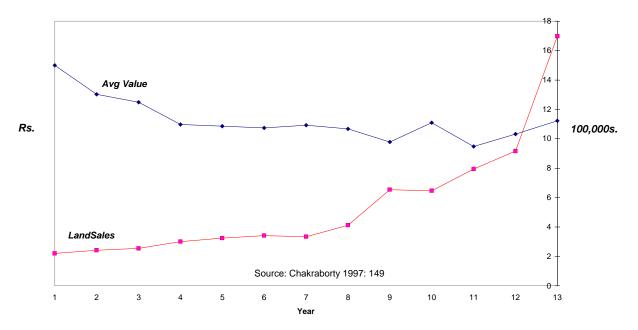
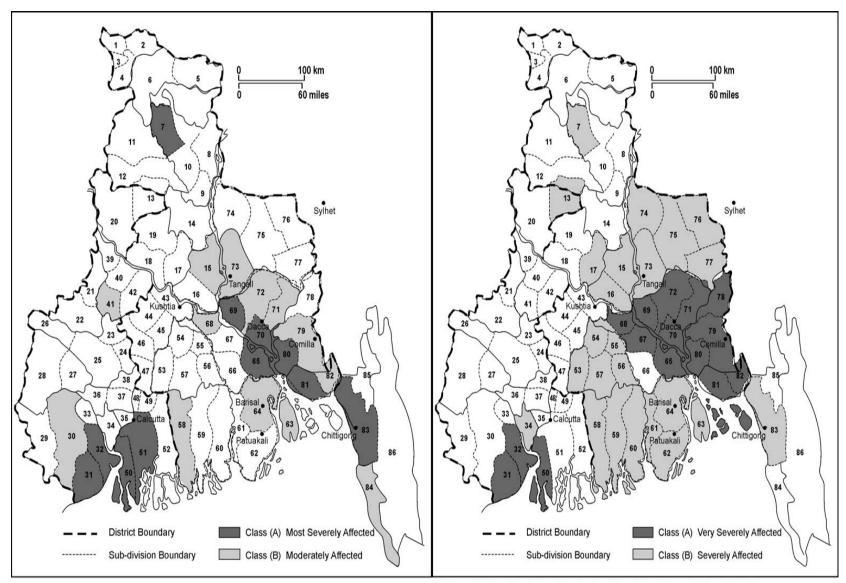


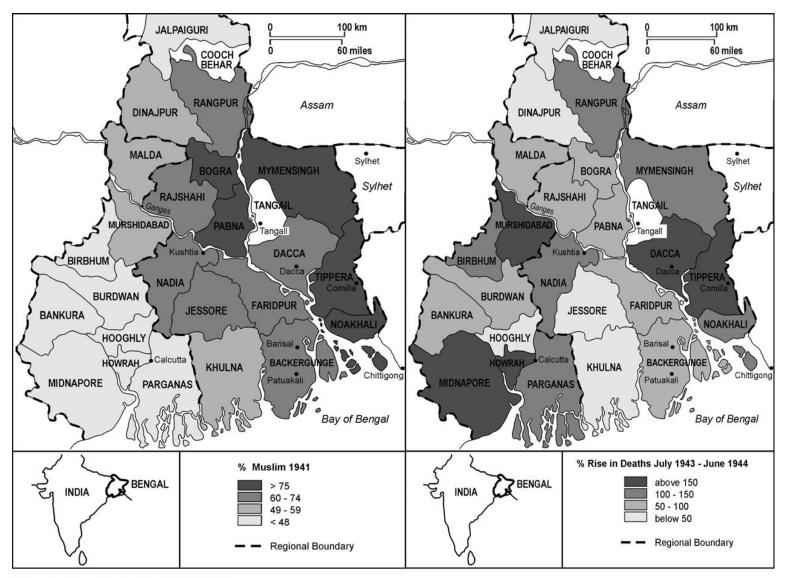
Fig. 7. Land Sales and Average Value per Sale 1931-43





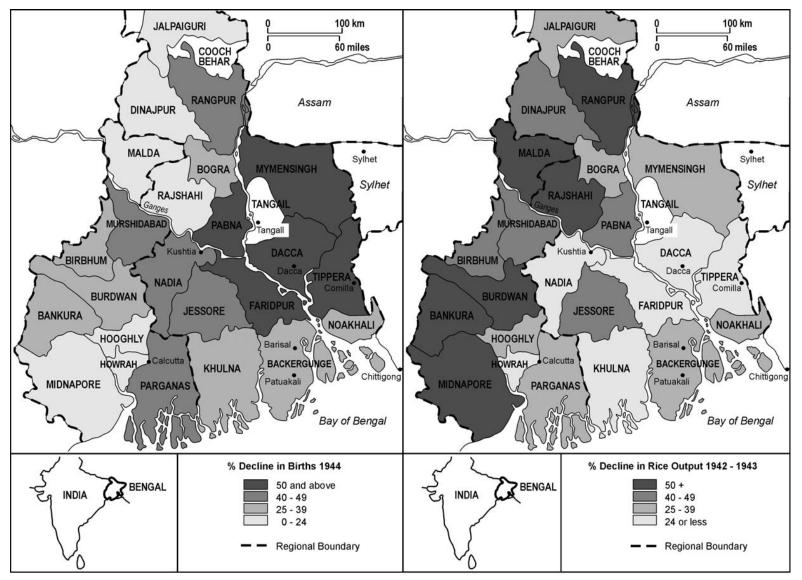
Map1: Famine Intensity: Revenue Department Classification

Map 2: Famine Intensity: Industries Department Classification



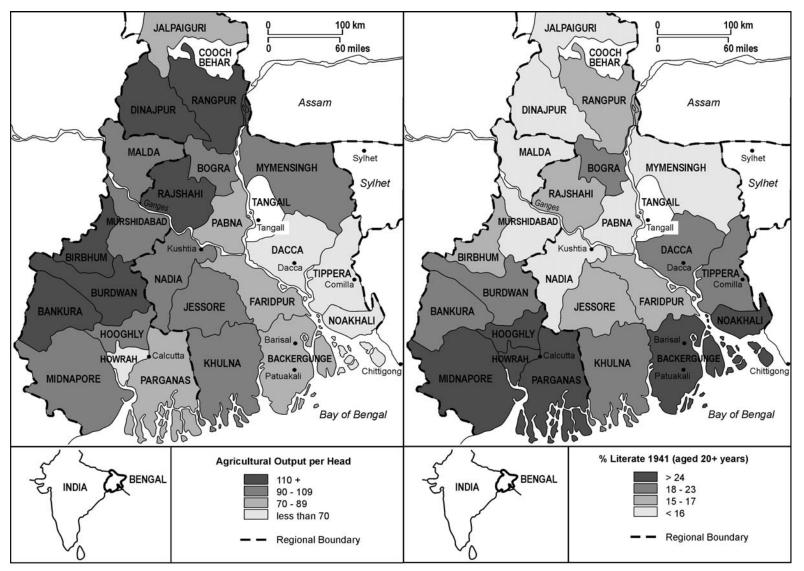
Map 3: Percentage Muslim in 1941

Map 4: Percentage Increase in Deaths, July 1943 - June 1944



Map 5: Percentage Decline in Births, 1944

Map 6: Percentage Change in Rice Output, 1942 - '43



Map 7: Agricultural Output per Head

Map 8: Percentage Literate 1941 (aged 20+ years)

¹ See e.g. Sen 1981; Greenough 1982; Brennan 1988; Dyson 1991; Dyson and Maharatna 1991; Maharatna 1996; Law-Smith 1989; Weigold 1999; Batabyal 2005; Mukerjee 2010.

² Most recently in Tauger 2004; 2009; De 2006; Islam 2007; Ó Gráda 2008.

³ Braund 1944: 25; Greenough 1982: 108-11.

⁴ Sen (1999) cites India in 1973, and Zimbabwe and Botswana in the early 1980s, as cases in which responsive governments took remedial action.

⁵ Banik 2002; Besley and Burgess 2002. Banik finds that elites are less concerned with non-crisis starvation and malnutrition. See too Bhattacharya 1995, 1997.

⁶ Das 2000: 57; (The London) Times, 4/11/1942; Times, 8/1/43; Greenough 1982: 98.

⁷ S, 5/7/1943 (reporting a speech by Huq in the provincial assembly).

⁸ E.g. S, 23/1/1944.

⁹ Some their reports were reprinted in book form; see Ghosh 1944; Santhanam 1944.

¹⁰ S, 14/5/1943; Greenough 1982: 122.

¹¹ According to an inhouse history (Anon. 1948: 40) claimed that its reports had focused 'world's humanitarian gaze upon a great calamity'. Note to be outdone, perhaps, *ABP* also published a series of graphic photographs of the famine in late August 1943.

¹² Here I disagree with later claims by the *Statesman*'s editor that it had been sounding the alarm bells since March 1943. See Stephens 1966: 169-97; Greenough 1982: 122.

¹³ Memorandum from the Delhi Government's Food Department, 9/12/42, (published in Mansergh III, 357). Data from several weather stations in west Bengal, especially in Midnapur, Hooghly, Bankura, 24 Parganas, Murshidabad, and Burdwan divisions (available at

http://dss.ucar.edu/datasets/ds575.0/data/part5of5; last downloaded May 1st 2008), show rainfall of one or more standard deviations above the mean in October to November. Compare Padmanabhan 1973: 13-17.

¹⁴ Statesman (S), 1/1/43; 28/1/43. As it turned out, rationing would not begin in Calcutta until February 1944. The measures then came as a shock to the well-to-do, who were initially innocent of the sacrifices called for; some applied for extra rations for their pets and to hold parties.

¹⁵ S, 3/4/1943; ABP, 2/4/1943; Sen 1981: 55; Greenough 1982: 98-9.

¹⁶ S, 16/5/1943.

¹⁷ S, 3/6/1943.

¹⁸ S, 15/5/1943.

¹⁹ S, 2/7/1943.

²⁰ S, 11/7/1943.

²¹ ABP, 15/5/1943.

²² Mahalanobis et al. 1946: 14; Greenough 1982: 139-47; Chattopadhyay and Mukerjee 1946: 2.

²³S, 1/1/1943

²⁴ S, 2/7/1943.

²⁵ S, 9/3/1943; 19/2/1943.

²⁶ Braund 1944: 30.

²⁷ Herbert died of cancer at the height of the famine. His widow worried that his attempts to raise the alarm, which were ignored by Linlithgow, would be forgotten. See British Library, OIOC (hereafter BL/OIOC), Mss. Eur. D911/9, letter from Government House to L. Pinnell, 1/1/1944. ²⁸ Mansergh 1973: 44, 60. Earlier, Suhrawardy had referred in the Bengal legislature to 'seven to eight million maunds [or 0.2 to 0.3 million tons]' as 'approximately...the quantity that has been discovered in hoards' (S, 6/7/1943).

²⁹ Mansergh 1973: 77. Linlithgow would be much criticized for never visiting Bengal during the famine (e.g. Bence-Jones 1982: 287).

³⁰ Hansard, Vol. 390, col. 343 (3/6/1943); vol. 390, col. 1174 (1/7/1943); vol. 391, col. 216 (14/7/1943).

³¹ Mansergh 1973: 139-41.

³² Mansergh 1973: 156, Braund 1944: 30; Amery 1988: 933 (entry for 4/8/1943).

³³ Amery 1988: 911-2 (3/9/1943); Mansergh 1973: 217 (8/9/1943).

³⁴ Amery 1988: 912, 943 (22/9/1943, 24/9/1943). On 10/11/1943 Amery noted that Churchill's dislike of India was a factor impeding relief (Amery 1988: 950).

³⁵ S, 13/5/1943.

³⁶ Ghosh 1944: 18.

³⁷ On the origin and scope of the codes, see Brennan 1984; Hall-Matthews 1998.

³⁸ Brennan 1988. Lance Brennan (email to author) suspects that the records of Suhrawardy's Department of Civil were destroyed after the famine.

³⁹ S, 13/8/1943.

⁴⁰ S, 16/08/1943.

⁴¹ S, 22/8/1943; Aykroyd 1974: 69.

⁴² S, 12/10/1943.

⁴³ S, 12/1/1944.

⁴⁴ PW, 28/11/1943.

⁴⁵ S, 10/3/1943.

⁴⁶ S, 9/3/1943. Bengal suffered a massive famine in 1770.

⁴⁷ S, 3/5/1943.

⁴⁸ S, 15/4/1943, 16/5/1943 (Azizul Haque).

⁴⁹ S, 16/5/1943. Braund 1944: 19.

⁵⁰ S, 22/5/1943.

⁵¹ S, 15/7/1943.

⁵² S, 6/7/1943.

⁵³ S, 28/9/1943.

⁵⁴ S, 12/10/1943.

⁵⁵ Compare Greenough 1982: 160.

⁵⁶ For background see Chatterji 1994; 2001; 2007; Batabyal 2005.

⁵⁷ PW, 14/11/43.

⁵⁸ Chatterjee 1994: 106.

⁵⁹ S, 22/5/1943; Chatterjee 1994: 136.

⁶⁰ Braund 1944: 142.

⁶¹ Mansergh 1971: 414 (Sir T. Stewart (Bihar) to Linlithgow, 23/11/1943).

⁶² S, 14/4/1943.

⁶³ S, 1/5/1943

⁶⁴ S, 30/8/1943.

⁶⁵ Greenough 1982: 164-5; Brennan 1988: 544.

⁶⁶ Brennan 1988: 544; *PW*, 21/11/1943; S, 22/10/1943. I owe the *PW* reference to Lance Brennan. ⁶⁷ S, 1/12/1943.

⁶⁸ S, 21/12/1943.

⁶⁹ S, 18/1/1944; 21/1/1944.

⁷⁰ S, 2/2/1944.

⁷¹ *ABP*, June 5, 1943.

⁷² Ravallion 1986. The evidence suggests that it rarely did so with sufficient speed, however.

⁷³ Ó Gráda 2005.

⁷⁴ Mansergh 1973: 43.

⁷⁵ Mansergh 1973: 414 (23/12/1942).

⁷⁶ Braund 1944: 30, 81.

⁷⁷ Knight 1954: 307. The cities are Cawnpore (Kanpur), Ahmedabad, and Lahore (now in Pakistan).

⁷⁸ ABP, 6/6/1943, p. 5: In Rangpur, 'The homes of a number of prominent citizens of the town were searched for illegal hoarded foodgrains.

But no illegal hoarding has so far been discovered'.

⁷⁹ S, 18/6/1943.

⁸⁰ ABP, 30/5/1943; S, 18/6/1943; ABP, 18/6/1943. A taktaposh is a raised wooden bed with storage space underneath.

⁸¹ S, 2/7/1943; 9/7/1943.

⁸² ABP, 24/6/1943.

⁸³ ABP, 7/71943 (editorial); 22/6/1943; 14/7/1943 ('in practically all places and districts deficits had been reported').

⁸⁴ ABP, 25/6/1943; S, 13/7/1943.

⁸⁵ S, 27/6/1943.

⁸⁶ S, 29/8/1943.

⁸⁷ S, 13/9/1943; 28/9/1943.

⁸⁸ Braund 1944: 88.

⁸⁹ PW, 31/10/1943.

⁹⁰ Mansergh 1973, vol. 4, p. 197.

⁹¹ S, 9/4/1943, 10/4/1943.

⁹² S, 17/8/1943.

⁹³ S, 21/1/1944.

⁹⁴ S, 27/2/1944 ('Sample survey of famine districts'); Chattopadhyaya and Mukherjea 1946: 10; Ó Gráda 2008; Das 2008.

⁹⁵ Knight 1954: 306, 307; Chattopadhyaya and Mukherjea 1946: 31.

⁹⁶ Chakraborty 1997: 149.

⁹⁷ PW, 14/11/1943. Joshi's article was accompanied by photographs taken by Sunil Janah.

⁹⁸ APB, 15/6/43 (statement from Bengal Provincial Students' Federation).

⁹⁹ *PW*, 14/11/1943. Anushilan was a Bengali Marxist group, the Forward Block a nationalist movement that sided with the Japanese during the war.

¹⁰⁰ Mitra 1989: 258.

¹⁰¹ Linlithgow to Amery, 10/10/1943 (reporting a confidential conversation between Mirza Isphahani and the acting governor in October

1943), in Mansergh 1973: 390; Sen 1981: 82.

¹⁰² Greenough 1982: 139-47; Maharatna 1996: 178-237.

¹⁰³ Maharatna's estimates imply 65 and 72 per cent, respectively.

¹⁰⁴ On the brown rust see Amery 1988: 954; Padmanabhan 1973; Dasgupta 1984; Tauger 2004, 2009; Holliday 1998: 41. I am grateful to plant pathologist Paul Holliday for instruction on the likely role of the fungus.

¹⁰⁵ Pinnell Papers, 'Note on the acreage and yield of aus rice in Bengal in 1943', BL/OIOC, Mss Eur, d911/8.

¹⁰⁶ Maharatna 1996: 190. Map 5 is derived from data in Maharatna 1996: 179-80, 200-1.

¹⁰⁷ Rutherford to Linlithgow, 2 October 1943, in Mansergh 1973: 363. Rutherford's list was Midnapur, Howrah, 24-Parganas, Bakarganj, Noakhali, Bankura, and Dacca.

¹⁰⁸ Mokyr 1985; see too McGregor 1989; Ó Gráda 1999.

¹⁰⁹ The demographic data are taken from Maharatna (1996), the Muslim percentage of the population from the 1941 census, and the agricultural output estimates from Boyce (1987: 140-1).

¹¹⁰ Amery 1988: 950. Churchill's role is highlighted in Mukerjee (2010)..