

Famines

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*Text of the first Annual Lecture of the Development Studies Association,
delivered in Reading, England, on 21 September 1979.*

Summary. – This is a text of the first Annual Lecture of the Development Studies Association. It investigates a variety of issues that arise in famine analysis, covering identification, causation and prevention. The rejection of the food availability approach is combined with exploration of the 'entitlement approach' presented by the author in an earlier contribution in the *Cambridge Journal of Economics*, Vol. 1 (1977). Four recent famines as well as some famous historical ones are examined in the light of the entitlement approach. Aside from throwing light on the causes and cures of famines, the entitlement approach also permits us to distinguish between various types of famines all of which share the feature of a common *predicament* of a mass of people but which do not share the same *causal* mechanism, nor invite the same *response*. Famine analysis, it is shown, requires more structure than the traditional approaches are able to provide.

1.

Economics has been called the dismal science. But it may not be quite dismal enough. While famines ravaging one country or another – killing millions and ruining many more – clearly have much to do with economics, famine analysis has typically been left to the journalist, the agriculturist, the epidemiologist, the general administrator and – recently – the new clan of disaster experts. Within their own domains of interest, these famine analysts have done an excellent job, and there is a tremendous wealth of material dealing with actual famine experience which economists can use if they so choose. This applies not merely to modern famines, but also to those in the past, and some of the 19th century were illuminatingly studied by those who had to deal with them. In particular, the British imperial administrators produced some great *famine reports* (in addition to producing – some would say – some great *famines*).

While economists have not typically expended much time on famines as such, the administrator's *reading* of economic theory has often played a decisive role in the choice of public policy. Adam Smith in particular, has cast his shadow over famines in Ireland, India and China, and Robert Malthus, who actually did produce a neat little piece on food shortage¹ as a follow up of his essay on population, provided cunning justification of administrative

policies which from the commonsense point of view seemed remarkably uncunning.

When, in 1812, the Governor of Bombay turned down a proposal of interfering with the market mechanism in dealing with a famine that was developing in Gujarat, he explained: 'The digression of the celebrated author of the *Wealth of Nations* concerning Corn-trade . . . and particularly as far as respects the *inland Trader*, is forcibly and irresistibly applicable to every state of society where merchants or dealers in grain may be established.'² Warren Hastings, who was an interventionist (not merely *vis-à-vis* the Begums of Oudh), was later rapped on the knuckles by Colonel Baird-Smith, for using public channels to move food into Bengal in the famine of 1783. Colonel Baird-Smith accused Hastings of not having understood his Adam Smith, making the condescending remark that Hastings could hardly be expected to understand so soon (in 1783) 'the first dawn of the revolution of thought on such questions produced ultimately by the publication of Adam Smith's *Wealth of Nations* in 1776'.³ Leslie Melville, the Company civil servant, commented on a later incident of deplorable neglect of the economist's valuable thoughts when discussing 'an order issued by an Indian Magistrate, fixing a maximum price of

* For helpful discussion, I am most grateful to Keith Griffin, Judith Heyer, Roger Hay and Felix Paukert.

grain in a particular town': 'I was immediately satisfied (as was the fact), that the authority who issued it, could never have attended, however negligently, the lectures of Mr Malthus.⁴ While failure to attend Mr Malthus's lectures would have been, I imagine, quite a common vice in India, classical political economy did play a major role in providing justification for non-interventionist policies in many of the Indian famines in the 19th century, as it did in Ireland as well.⁵ I shall have something to say on this policy question, but before that I would like to take up the question of *causation* of famines.

On the subject of causation, the view that has certainly dominated most studies of famines is one that centres on *food availability decline* – FAD for short. This is a rather obvious view to take, and while many economists, including Malthus, adhered to such a diagnosis, it would be surprising if non-economists would not have also arrived at the same thought rather effortlessly. If people are dying for want of food, it would seem natural to think that there must be a shortage of food availability. This would fail to be the case only if, it might appear, food is somehow denied to people by a deliberate policy.

It may be recalled that in Bernard Shaw's *Man and Superman*, the Irish-American Mr Malone, Hector's father, explains to his English daughter-in-law the distinction between 'famine' and 'starvation'.

Malone: Me father died of starvation in the black 47. Maybe you've heard of it?

Violet: The famine?

Malone: No, the starvation. When a country is full of food and exporting it, there can be no famine.⁶

Malone's statement raises three interesting and important questions – all of which I would like to pursue in this lecture. First, there is the question as to whether famines can take place without any substantial decline in food availability per head, i.e. the question of the correctness of what I have been calling the FAD view. Second, Malone speaks of food being exported out of Ireland during the famine. I shall call this the issue of '*food counter-movement*'. Finally, there is the point about the distinction between famine and starvation. The former, presumably, is the result of some kind of a 'natural' occurrence involving genuine food shortage while the latter is the result of some deliberate action in starving people to death or to migrate. This concerns the *mechanism* through which people are deprived of food.

2.

How does FAD fare as an approach to famines? The answer seems to be: not very well. While several famines recently have been interpreted in the FAD light, arguing that food availability did go down sharply leading to the respective famines, a closer examination shows that this has often not been the case at all. I shall presently take up four different cases of recent famines which are interesting to study, but would like first to make two preliminary remarks.

First, even without looking for empirical evidence, it should be clear that the FAD view *need not* be correct. Famine is a characteristic of some people not *having* enough food; it is not a characteristic of there *being* not enough food. While the latter *can* be a cause of the former, it is one of many possible causes, and indeed *may or may not* be associated with famines. Food supply statements say things about *commodities* as such, while statements about famines are concerned with the *relationship* between persons and commodities. To understand famines, we need to go into this relationship.

Second, that the FAD view *need not* be correct is not merely clear, it *has been* clear for a very long time to people who have tried to look beyond their first thoughts on famines. Before political economists are written off as overlooking the obvious, it is worth recalling David Ricardo's reaction to a FAD argument contained in his notes for a speech in Parliament in 1822. (It was written by Ricardo in the third person *as if* reported in Hansard, though it was not delivered in Parliament in that form, and was not thus reported in Hansard.)

But says the honble. gentn. the people are dying for want of food in Ireland, and the farmers are said to be suffering from superabundance. In these two propositions the honble. gentn. thinks there is a manifest contradiction, but he Mr R could not agree with him in thinking so. Where was the contradiction in supposing that in a country where wages were regulated mainly by the price of potatoes the people should be suffering the greatest distress if the potato crop failed and their wages were inadequate to purchase the dearer commodity corn? From whence was the money to come to enable them to purchase the grain however abundant it might [be] if its price far exceeds that of potatoes. He Mr Ricardo should not think it absurd or contradictory to maintain that in such a country as England where the food of the people was corn, there might be an abundance of that grain and such low prices as not to afford a remuneration to the

grower, and yet that the people might be in distress and not able for want of employment to buy it, but in Ireland the case was much stronger and in that country there should be no doubt there might be a glut of corn, and a starving people.⁷

Clearly, the interesting question is not so much whether famines *can* happen even when there is no food availability shortage, but whether typically famines *are* in fact associated with food availability decline. Also *when* food availability decline *is* associated with the development of famine conditions, does FAD provide a good approach to understanding why famine conditions have developed?

In fact, in the case of most of the great famines in history, the FAD hypothesis cannot be easily rejected on the basis of the available evidence, and in some cases there *is* evidence of a substantial food availability decline.⁸ Even the great Irish famines of the 1840s had that feature, and the collapse of the potato crops did make a substantial dent on food availability in Ireland. The issue of food *exports* out of Ireland is, of course, a separate one, which would have to be discussed, since export of some goods is no proof of there being enough of that good for the population. However, temporal association with food availability decline does not settle the issue of the usefulness of the FAD approach for understanding the great historical famines, and I shall come back to this question later. Before that I would like to report on the food availability picture in the four recent famines to which I referred earlier.

3.

The four famines considered are from two parts of the world, in particular Bengal and Ethiopia, the famines in question being: (1) the Great Bengal famine of 1943; (2) the Ethiopian famine – centred in the province of Wollo – of 1973; (3) the Ethiopian famine – centred in the province of Harerghe – of 1974; and (4) the Bangladesh famine of 1974. These are certainly among the biggest famines in recent years, with the Great Bengal famine arguably the largest in this century, causing the death of around 3 million people.⁹

I have shown elsewhere that the FAD approach can be firmly rejected in the case of the Great Bengal famine.¹⁰ While the food availability did go down in 1943 compared with the year immediately preceding, it was substantially higher than in 1941 when there was no hint of a famine. The total availability in the

famine year was around 11% higher than in 1941, and the *per capita* availability 9% higher. There was nothing like a famine in 1941. And yet while these figures stood high, people fell and perished. The explanation has to be sought in something other than FAD.

The position in Ethiopia in 1973 is a bit more complicated. The food output did fall very substantially in the province of Wollo, where the famine was severest, but it did not fall by much for Ethiopia as a whole. In fact, the *per capita* availability of calories has been estimated to have been fairly normal in 1973, about the same as in the preceding years.¹¹ The question that arises in this case is one of the appropriate unit: Ethiopia *or* Wollo? I shall postpone this question until a bit more where-withal for answering this question has been presented, and will come back to it later.

In the following year, there was a noticeable shortfall of food availability both in Ethiopia as a whole and in Harerghe – our focus province – so that the FAD hypothesis is not contradicted by either piece of food statistics.

Finally, in the Bangladesh famine of 1974, rice output as well as food availability per head were higher than in any other year during 1971–1975, and still the famine hit precisely in the peak availability year.¹² If we look back on the inter-district pattern, again the famine districts – Rangpur, Mymensingh, Sylhet – seem to have been relatively better supplied with food grains, and also had substantial increases in rice output – the chief food – in 1974 compared with 1973.¹³

To take a quick tally, in two cases out of the four studied, the FAD approach gets contradicted firmly, while there is no rejection of FAD in one case, and some interpretative ambiguity in the fourth.

4.

I move now from questioning FAD to discussing an alternative line of attack, which I have called the entitlement approach. This sees starvation as arising from failure on the part of groups of people to establish entitlement over a requisite amount of food. What a person is entitled to in a given society is constrained by a collection of relationships covering the legal system (e.g. ownership laws), the political system (e.g. presence or absence of social security or right to work), economic forces (including those of the market), as well as social and cultural influences (e.g. the family's system of sharing incomes and food). In a private

ownership economy, the entitlement relationships can be conveniently split into two broad categories of influences, viz. *endowment*, covering a person's basic ownership situation, and *exchange entitlement mapping*, specifying for each endowment the set of alternative commodity bundles that the person in question can command, through using the means of exchange that are available in the economy. This is not the occasion to go into the technical details of these relationships, which have been presented elsewhere,¹⁴ but I would like to mention that 'exchange' for this purpose includes all ways of changing ownership over one bundle to ownership over another, and this includes production as well as trade.

Our ability to command food depends on what we own and what we can get by exchanging what we own. If a peasant slides into starvation because he has lost the land he owned (say, because of debt settlement), it is a case of an entitlement loss arising from an endowment loss. On the other hand, if a barber has to starve because there is a sharp decline in the demand for haircuts (as, incidentally, is quite common in rural famines), this is a case of entitlement loss traceable not to endowment changes but to a collapse of the exchange entitlement mapping.

The entitlement approach takes the line that one can understand the development of famines by examining how the entitlements change *within* the system of entitlement relations operating in the economy. Before proceeding further, it may be useful to diagnose some possible influences which the entitlement approach denies or ignores. The first is the role of *choice* in the most immediate and narrow sense. If a person has not got enough food, this can be *either* because he did not have the *ability* to command that food, or because he *chose* not to exercise that ability. The entitlement approach concentrates solidly on the ability side of the story.

This may not be quite as trivial or non-controversial as it might at first sound. One of the frequent lines of analysis of famines concentrates on people's unwillingness to consume unfamiliar food. Charles Edward Trevelyan, the Head of the Treasury at the time of the Irish famines of the 1840s, had complained: 'There is scarcely a woman of the peasant class in the West of Ireland whose culinary art exceeds the boiling of a potato'.¹⁵ However, the introduction of corn-meal while meeting with initial resistance — including being named 'Peel's brimstone' in honour of the Prime Minister — was soon a great success, as anything would have been with a starving population.

More recently, Dom Moraes, the distinguished poet, has produced the following extraordinary version of the Bengal famine of 1943:

... in India in the 1940s there was a famine in Bengal and millions of people died. During the famine, the British brought in a large amount of wheat. Now, the people of Bengal are traditionally rice eaters and they would not change their eating habits; they literally starved to death in front of shops and mobile units where wheat was available. Education must reach such people.¹⁶

In contrast with Moraes's analysis, other accounts — including that of the official Famine Inquiry Commission — speak of gigantic queues for trying to get relatively small amounts of food distributed free.¹⁷ And there is indeed no evidence whatsoever of people starving because of unwillingness to change food habits. People dying in front of shops full of food, which is true, has to be seen in terms of failure of entitlement rather than of choice.

A second point concerns the concentration of the entitlement approach on *legally valid* procedures. If food is snatched away from people by some illegal means, the entitlement approach will not be able to catch this. In so far as historical periods of turmoil and disorder have led to starvation through such illegal deprivations, the entitlement approach will not be a useful guide to employ. There is a hint of this even in Mr Malone's account of British rule in Ireland. The entitlement approach concentrates instead on legal means, and views starvation and famines as essentially law-consistent deprivations under the economic, political, legal system in operation in that country at that time. Most recent famines have, in fact, taken place under very orderly circumstances — this applies to the Irish famine as well, despite occasional looting and obstructions. When people died of starvation in front of well-stocked shops in Bengal in 1943 the powerful arm of the law was there to protect the property rights of those who had food or the ability to command it. There is typically nothing illegal about the process that leads up to famine deaths. That is the line that the entitlement approach explores.

A third distinction concerns the denial that famines must be linked invariably to non-entitlement variables such as the total food supply in the country. If the total food supply were to affect starvation, this can happen — according to the entitlement approach — only through changing people's entitlement positions. The most important denial made by the entitlement approach is, therefore, of simple analysis of famines in terms of 'too many people, too little food'. In contrast, David Ricardo's state-

ment, quoted earlier, fits well within the entitlement approach, even though one could dispute the specifics of it, e.g. Ricardo's potato theory of wages, and ignoring other aspects of the entitlement relations.

5.

I do not want to go here into the technical characterization of entitlement relations and the forces governing its changes. But it is important to distinguish between two different types of entitlement failures – a contrast that differs somewhat from the distinction made earlier between endowment loss and unfavourable shifts in the exchange entitlement mapping. The distinction I now want to consider is between *direct* entitlement failure and *trade* entitlement failure. Some people produce the food that they themselves eat, and a failure of production, e.g. a failure of rice crop for a rice-growing peasant, would directly predispose them to starvation. This I shall call a *direct* entitlement failure. In contrast, most people acquire food by trade, and their starvation can arise from the failure of their trade entitlement *either* because of endowment loss *or* because of worse terms of trade (or indeed failure to sell or buy). This dependence on trade for survival is a characteristic not merely of tinkers, tailors, soldiers and watchful sailors, but also of lawyers, doctors and businessmen. Their food command is dependent on the precise nature of the trade relationships.

It may be useful to bring in the contrast with the FAD approach in the context of this distinction. A trade entitlement failure can arise from many causes, of which a decline in food availability – affecting trade relations – is only one. A glut of cash crops, a decline in the demand for particular services, a general excess demand for foodgrains, all can put adequate food beyond the reach of particular classes or groups of people, leading to starvation and famines.

So much for trade entitlements. It might look as if *direct* entitlement failure is more closely connected with FAD. But this is not the case either. If the output from my farm falls sharply because of some local calamity, but the food supply in the market is unaffected or even increased, I – the peasant – shall still be forced towards starvation. What keeps me from hunger is not the food supply in the country or the region or even in the local market, but my ability to establish command over food through the systems of entitlement in operation. As a

peasant I get this directly from the food I grow. I am, of course, free to buy food in the market, but what do I buy it with? The crop failure will not merely affect my direct food command, but also my main source of entitlement.

When there is a general crop failure, the element of food availability decline and that of direct entitlement decline are both present, but they are quite distinct entities. Moving food into a region in which the crop has failed may do rather little for the local peasants unless some means are devised for them to have the ability to exercise some trade entitlement.

Essentially, such a general crop failure in a peasant economy is primarily a direct entitlement failure, and the role of food availability decline is a subsidiary one, making it even more difficult for the peasant to acquire food, which is difficult enough anyway thanks to their lacking things with which food can be traded. Typically, on these occasions, markets for land, livestock and other assets also tend to collapse, and the shortage of food clearly plays a role here in reducing the value of non-food assets. But all this is subsequent to the primary story which is one of direct entitlement failure of the peasants who rely on food grown by themselves.

6.

Two comments may be made here on matters that were postponed earlier. First, even though many historical famines might have been associated with food availability decline, a discriminating analysis would have to distinguish between famines *caused* by FAD and those caused by *direct* entitlement decline (possibly supplemented by trade entitlement difficulties made worse by shortage of food). Indeed, for peasant economies, the direct entitlement story goes through much more easily than the *impersonal* tale of food availability decline.

Second, in a situation of direct entitlement failure, food availability in shops may not go down very much even when total food availability sharply goes down. When during the Irish famine in late 1846, people were starving, Major Parker, the local Relief Inspector sent the following report on December 21st from Skibbereen: 'On Saturday, notwithstanding all this distress, there was a market plentifully supplied with meat, bread, fish, in short everything.'¹⁸ Similar reports from all over Ireland made Trevelyan insist that all the 'resources' of the country should be, as he put it, 'drawn out'.

In fact, however, the apparently paradoxical situation had arisen from a decline in entitlement in excess of the supply of food. That situation is, in fact, quite a common occurrence in famines. What has to be guaranteed to prevent starvation is not food availability but food entitlement.

7.

I am in a position now to return to the unresolved issue of food availability in the Ethiopian famine in 1973 in the province of Wollo. As was noted before, there was little overall food availability decline in Ethiopia, but a sharp reduction in Wollo. For Wollo peasants, this would have been a *direct* entitlement failure and that clearly was the first step towards starvation. The question arises then as to why the Wollo agricultural population could not *buy* food, and in this context one has to examine the choice of the market unit for analysing availability: Ethiopia or Wollo? One interpretation would be that they were unable to buy food since food could not be moved to Wollo from other – more plentiful – regions. It is, of course, well-known that the transport system in Wollo was underdeveloped, and this lends plausibility to the story that the starvation in Wollo was due to food availability decline in Wollo specifically.

I do not think, however, that this story is sustainable. First of all, while the transport system in Wollo is underdeveloped, two highways run through it, and the Ethiopian north-south highway linking Addis Ababa to Asmara runs right through the area most affected by the famine. In fact, the early reports of the famine came from travellers being stopped on this highway, and later when famine relief camps were set up, they concentrated on the region around the highway not merely because of supply advantages, but also because of the geographical focus of the famine. Underdeveloped roads will not explain why food did not move into this region of acute starvation.

Second, there were confirmed reports of food moving *out of* Wollo into Addis and Asmara throughout the period of the famine, rather like in Ireland. While there was also some food moving in, the existence of outward movement of food from Wollo would indicate that something other than food availability would have also fallen in Wollo.

Third, the price of food in Dessie, the main market in Wollo, was hardly higher in the famine year than in preceding years.¹⁹ Even

from other regions, such as Raya and Kobo – most affected by the famine – whatever price information we have indicates little evidence of a sharp rise. Wollo seems to have experienced a major famine with an almost unchanged price level of foodgrains.

All this taken together would confirm the view that what prevented the Wollo population from having enough food to eat was not the transport difficulty of getting food into Wollo from the rest of Ethiopia, but the inability of the Wollo population to command food through the market entitlement system. The entitlement failure applies directly to the farmers – both tenant and rist-owners – and indirectly, to farm servants, dependents and others evicted by farmers, and also to those elsewhere the demand for whose products went down sharply as a result of the agricultural population's inability to buy urban goods and services. If this analysis is accepted, then the score against the FAD view is clearly three out of four.

8.

The Wollo famine can be described as a *slump* famine. So was the Great Irish famine. In contrast, the Great Bengal famine of 1943 was a *boom* famine. Food output did not fall very much anywhere, and in general was quite high. But the economy – fed by immense war-related expenditures – was subjected to powerful expansion of demand in general, and demand for food in particular.

I have presented a detailed analysis of the happenings elsewhere, but what seems to me to be the central issue can be understood in terms of a highly simplified model. In a poor community take the poorest section, say, the bottom 20% of the population, and double the money income of *half* of that group, keeping the money income of the rest unchanged. In the short run prices of food will now rise sharply, since the lucky half of the poorest group will now fill their part-filled bellies. While this might affect the food consumption of other groups as well, the group that will be pushed towards starvation will be the *remaining* half of the poorest community which will face higher prices with unchanged money income. Something of this nature happened in the economy of Bengal in 1943. Expansionary forces worked very unevenly, helping the urban areas, especially Calcutta, and some rural areas in which military construction took place, or war-related industries and activities ex-

panded. But the bulk of rural Bengal faced sharply rising prices with money incomes that were not at all comparably higher. Speculative withdrawal of rice supply at a later stage added fuel to the fire of this unequal expansion which was *already* causing misery to many.²⁰

The most affected groups were the rural labourers, particularly agricultural labourers, but the shifts also affected other groups in the rural economy selling services and crafts to the local market. The exchange entitlement mappings took deep plunges, forcing these occupation groups into starvation. The story is made grimmer by the military policy of destroying large boats in the coastal region of Bengal — fearing the arrival of the Japanese (who, incidentally, refused to come for *other* reasons) — and also the removal of rice stocks from three districts — again with the object of starving the elusive Japanese. These added to the entitlement decline, and indeed the fishermen and the river transporters were the two most affected groups in proportionate terms, but this was an added impetus in a movement that was leading to a famine anyway, affecting primarily the large population of landless rural labourers all over Bengal.

Since the famine was largely a result of trade entitlement failure rather than of direct entitlement failure, the groups that suffered least were those whose trade entitlements were *guaranteed*, and those who did not *need* to purchase rice. The former included the population of Calcutta protected by a system of rationing of food at heavily subsidized prices, and the latter included peasants and share-croppers who, while poor, were the least affected group in the rural economy of Bengal. If the Wollo famine was a slump famine with direct entitlement failure, the Bengal famine was a boom famine with trade entitlement failure, arising from shifts in the market powers of different groups.

9.

The Bangladesh famine of 1974 had a mixture of boom and slump characteristics. Certainly the overall inflationary tendency fed the rise in rice price. But the floods during June–September of 1974 also sharply reduced the demand for labour, leading to unemployment and making the wages fall behind the increase in rice price. The food output did of course go down as a result of the floods when the *aman* crop was harvested around November 1974–January 1975, but by then the famine was

largely over. While the decline in food availability was delayed, the reduction of employment and rice-buying power of wages were immediate. The most affected group again was rural labour, even though there was more distress among peasants and share-croppers in the Bangladesh famine of 1974 than in the Bengal famine of 1943, and many peasants and share-croppers did suffer from flood-based destructions.

The 1974 famine in Harerghe in Ethiopia concentrated on the pastoralists, particularly the Ogaden Somali and Issa Somali herdsmen. There was a sharp decline in the animal stock due to drought. This endowment loss was worsened by a precipitate fall in the terms of trade between animals and grain, affecting the herdsmen who rely on buying cheaper calories from grains by selling animals. Grains being an 'inferior' good *vis-à-vis* animal products, the demand for them *increased* as the herdsmen got impoverished, adding to the deterioration of the animal–grains terms of trade. Thus an endowment failure (animals as stocks), a direct entitlement failure (animals as food) and a trade entitlement failure (grains commanded by selling animals) can all be seen in the Harerghe famine. While, as was mentioned earlier, there was also some general food availability decline in Ethiopia and particularly in Harerghe, it seems more natural to relate the starvation of the herdsmen to these entitlement variations. On the other hand, the food availability fall did clearly contribute to the worsening of terms of trade of animals *vis-à-vis* grains, along with other forces, including demand shift in favour of foodgrains with impoverishment of the herdsmen. The Afar community of herdsmen in Wollo had suffered similarly, in 1973, but their distress was further increased by another entitlement shift, viz. the loss of some of their best grazing grounds in the Awash valley due to expansion of commercial agriculture.

10.

I turn now, very briefly, to some policy issues. There has been a good deal of discussion recently about the so-called 'world food crisis'. The focus of attention has centred on the availability of food, both through adequate production as well as through international trade. There have been proposals of international insurance systems to guarantee that a country should not suffer a big decline in food availability if its crop were to fail.

There is much merit in these discussions,

since food availability is certainly among the influences affecting starvation. But there are reasons for disquiet about this focus on food, and the importance attached to it to the exclusion of other variables. If the entitlement approach is accepted, then the focus has to be on that combination of economic, political, social and — ultimately — legal arrangements that affect people's entitlement to food. Food supply will be a part of the story but no more than that, and it has to be borne in mind that some of the recent major famines have taken place in favourable food supply situations, sometimes even in peak food supply situations.

The entitlement approach suggests concentration on such policy variables as social security, employment guarantees, terms of trade between non-food and food (especially between labour power and food), and the totality of rights that govern people's economic life. Policies both of long-run nutritional improvements as well as of short-run famine avoidance and relief have to take note of these different influences on food deprivation. A focus on the ratio of food supply to population hides more than it reveals, and this has persistently deranged public policy over the centuries. In fact, as I have argued elsewhere, the gigantic Bengal famine was not anticipated — not even recognized when it came — largely because of the overwhelming preoccupation with the statistics of food availability per head.²¹

The issue of intervention vs free market obviously relates to this question. A focus on food availability tends to produce the anticipation that a free market would encourage food movement into deficit areas, and the best that the government could do would be to leave things to the private trader. Such a policy is not entirely dismissable when the famine is a boom famine like the Bengal famine of 1943. Interprovincial restrictions in food movement certainly did add to the pressure on foodgrains supply in Bengal arising from a severely expansionary demand situation, and I do not doubt that the suffering would have been less if there were free movements of rice into Bengal at that time. Unhappily, for once the Raj departed from its traditional free market policy, and that was clearly the worst moment to stifle private trade especially without making any systematic arrangement for public movement of foodgrains between the provinces. Given the absence of an all-India food policy, which came into effect only *after* the famine, it clearly would have been better not to stifle private trade, and here a leaf might well have been taken from the book of Adam Smith which caused such a

rampage in the preceding centuries. Free food movement would not have guaranteed food to the Bengali rural labourer, but could have somewhat lessened the worsening of his terms of trade through checking the rise in food prices.

The situation, however, is entirely different when one is dealing with a slump famine. There, food *counter-movements* are perfectly possible and indeed quite common, since the food supply — even if low — may be in excess of what the population of that country or region can establish entitlement for in a competitive market. Food did not move much into Wollo, and quite a bit moved out of it. In the Bangladesh famine of 1974, there was evidence of food going out into India, and while the quantification of this remains difficult, the occurrence of such counter-movements cannot be dismissed. In China, the British refusal to stop rice exports from famine-affected Hunan — a slump famine it was — caused an uprising in 1906, and later a similar thing occurred leading to the famous Changsha rice riots of 1910.²² During the Great Irish Famine, ship after ship laden with wheat, oats, cattle, pigs, eggs and butter sailed from Limerick, sailing down the Shannon from a starving country to one with plenty of food. A non-interventionist policy does nothing to take note of the fact that entitlement declines would encourage food to move out even when there is acute shortage.

Sincere and well-meaning believers in the market mechanism were often disappointed by the failure of private trade to bring food into famine affected regions. During the Orissa famine of 1865–1866, Ravenshaw, the distinguished Commissioner of Cuttack division, expressed great disappointment that private trade did not bring in much food from outside which would have occurred since 'under all ordinary rules of political economy the urgent demand for grain in the Cuttack division *ought to have created* a supply from other and more favoured parts'.²³ The fact is, however, that political economy says no such thing and the pulls of market can hardly be identified with acute needs when not backed by entitlement relations of economic or legal kinds.

11.

The main purpose of my discussion has been to draw attention to this variety of issues that arise in famine analysis, covering identification, causation and prevention. The rejection of the food availability approach seems overdue. It

predicts badly, and even when starvation is temporally associated with famines, it does not offer explanation as to why one group starves and another does not. Indeed, the FAD approach fails altogether to go into the crucial issues in famine analysis, viz. the relationship between people and food, and instead it keeps brandishing one piece of inert statistics.

Famine analysis requires more structure, and I have tried to argue that the entitlement ap-

proach provides that. It also permits us to distinguish between various different types of famines all of which share the feature of a common *predicament* of a mass of people but which do not share the same *causal* mechanism. It is in the study of the various aspects of entitlement relations that, in my judgement, the most fruitful fields of famine analysis can be found.

NOTES

1. *An Investigation of the Cause of the Present High Price of Provisions* (1800).
2. Quoted by S. Ambirajan, *Classical Political Economy and British Policy in India* (Cambridge: Cambridge University Press, 1978), p. 71, which provides an interesting study of the influence of classical political economy on famine policy in India (among other things). See also S. Rashid, 'The policy of laissez-faire during scarcities', *Economic Journal*, forthcoming.
3. *Parliamentary Papers*, H. C. 29, Vol. 40, Session 1862; quoted by Ambirajan (1978), *op. cit.*, p. 75.
4. *Remarks on the East India Bill* (London: 1833), p. 26; quoted by Ambirajan (1978), *op. cit.*, p. 77.
5. See C. Woodham-Smith, *The Great Hunger: Ireland 1845-9* (London: Hamish Hamilton, 1962; New English Library edition, 1975).
6. Bernard Shaw, *Man and Superman* (1903; Penguin Books edition, 1946), p. 196.
7. *The Works and Correspondence of David Ricardo*, edited by P. Sraffa with the collaboration of M. H. Dobb, Vol. 5 (Cambridge: Cambridge University Press, 1971), pp. 234-235.
8. See, for example, G. B. Masfield, *Famine: Its Prevention and Relief* (London: Oxford University Press, 1963); B. M. Bhatia, *Famines in India: 1860-1965* (Bombay: Asia Publishing House, 2nd ed., 1967).
9. See my 'Famine mortality: a study of the Bengal Famine', in E. Hobsbawm *et al.* (eds.), *Peasants in History* (Calcutta: Oxford University Press, 1980), a volume in memory of Daniel Thorner.
10. For a more detailed analysis, see my 'Starvation and exchange entitlement: a general approach and its application to the Great Bengal famine', *Cambridge Journal of Economics*, Vol. 1 (1977).
11. See my 'Ingredients of famine analysis: availability and entitlements', Working Paper No. 210, Department of Economics, Cornell University (October 1979).
12. See Sen (1979), *op. cit.* My analysis of the Bangladesh famine draws heavily on the pioneering study by Mohiuddin Alamgir, 'Famine 1974: political economy of mass starvation in Bangladesh', 1979.
13. See Alamgir (1979), *op. cit.*
14. See Sen (1979), *op. cit.* There is a more comprehensive exploration to be found in Appendices A and B of my manuscript *Poverty and Famines*, prepared for the ILO World Employment Programme, to be published by Oxford University Press.
15. Quoted in Woodham-Smith (1975), *op. cit.*, p. 71.
16. Dom Moraes, 'The dimensions of the problem: comment', in S. Aziz (ed.), *Hunger, Politics and Markets: The Real Issues in the Food Crisis* (New York: NY Press, 1975).
17. See Government of India, Famine Inquiry Commission, *Report on Bengal*, (New Delhi: 1945). See also T. Das, *Bengal Famine 1943* (Calcutta University Press, 1949); and K. C. Ghosh, *Famines in Bengal 1770-1943* (Calcutta: Indian Associated Publishers, 1943).
18. See Woodham-Smith (1975), *op. cit.*, p. 159.
19. See Sen (1979), *op. cit.* My analysis is based on data of the National Bank of Ethiopia and of Ethiopian Grain Agency, and I am most grateful to Julius Holt for directing me to these unpublished data.
20. See Sen (1977), *op. cit.* and also Chap. 6 and note B of my manuscript *Poverty and Famines* (1980), *op. cit.*
21. See Sen (1977), *op. cit.*
22. See J. W. Esherick, *Reform and Revolution in China* (Berkeley: University of California Press, 1976).
23. See Ambirajan (1978), *op. cit.*, p. 76; italics added. See also Ajit Ghose, 'Short-term changes in income distribution in poor agrarian economies: a study of famines with reference to the Indian sub-continent', mimeographed, Queen Elizabeth House, Oxford (1979).