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# The Entitlement Approach to Famine: An Assessment

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# The Entitlement Approach to Famine: An Assessment

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## 1. Introduction:

Nothing excites intellectual curiosity more than the overturning of a time-honoured belief. This is specially so when that overturning is accomplished by scholarly analysis, as distinct from Messianic rhetoric. So when as highly acclaimed a scholar as Amartya Sen challenged the popular belief that famine means shortage of food, it inevitably caused a stir.

The famine that had killed two to three million people and brought starvation to millions more in Bengal in 1943 was not, he maintained, a result of shortage of food (Sen 1976, 1977). What's more, he went on to argue, the Bengal famine was by no means unique in this regard. He showed that many contemporary famines in Asia and Africa shared this property of not being caused by reduced availability of food (Sen 1981b). Famine, he concluded, is a case of people not *having* enough food to eat, but not necessarily of there not *being* enough food to go around. From this emerged what has come to be known as the 'entitlement approach' to hunger and famine -- an approach that focuses attention on people *having or not having* enough command over food as distinct from there *being or not being* enough food to be eaten.

Over the years, Sen and others following his lead have extended the reach of the entitlement approach from its initial concern with the genesis of famine. In a recent treatise, for example, Drèze and Sen (1989) have skilfully utilized the insights of this approach to shed radically new light on the policy issues relating to famine relief and the more widespread problem of combating endemic hunger. To many, these insights have forever changed the way they perceive the problems of hunger and famine.[1]

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* I have benefited from helpful comments of Derseh Endale and Amartya Sen on an earlier draft, but I am alone responsible for the views and interpretations contained in the paper.

[1] As Robert Solow remarks in his review of the Drèze-Sen book, "It has changed the way I will think about famine relief from now on." (Solow 1991, p.23.)

But, for all the adulation it has received, the entitlement approach has not gone unchallenged. Although it is perhaps fair to say that those who have delved into Sen's copious writings on this matter have generally come out impressed with his arguments, a significant strand of critical reaction has persisted to this day. A major objective of this paper is to assess the merit of this critical literature with a view to forming a judgement as to where exactly the entitlement approach now stands.

However, I am not going to attempt a comprehensive assessment of the whole of the critical literature. It is convenient to divide up this literature into two parts: one that questions the *analytical* merit of the entitlement approach as a tool for understanding famines in general, and one that takes issue with Sen's *empirical* analysis of particular famines. The two parts are not necessarily independent, but they are nevertheless distinct. I shall concentrate on the first part, delving into the empirical literature only insofar as issues relating to particular famines are relevant for understanding disputes at the analytical level.

I begin by sketching out (in Section 2) the conceptual apparatus of the entitlement approach. In doing so, I draw attention to a certain transition that seems to have occurred between Sen's earliest formulation and the later ones. I attach some importance to this transition, because I believe that the failure to notice it may be responsible at least in part for some of the confusions surrounding the entitlement approach. An attempt is then made in Section 3 to reach a clear understanding of what the entitlement approach really claims, and what it does not. Next, in Section 4, I take up the major criticisms of the entitlement approach, and evaluate their merit in the light of the preceding account of what I believe the entitlement approach to be really about. Section 5 provides a brief summary and some concluding remarks.

## 2. The Conceptual Apparatus of the Entitlement Approach:

The basic unit of analysis is an individual person. For practical purposes, however, the analysis can also be conducted at collective levels such as household, group, or class by using the standard device of assuming a 'representative individual'.

*The Basic Concepts*

The analysis is built upon three basic conceptual categories, viz. the endowment set, the entitlement-mapping (or E-mapping, for short), and the entitlement set.

The *endowment set* is defined as the combination of all resources legally owned by a person. In this definition, 'resources' include both tangible assets such as land, equipment, animals, etc., and intangibles such as knowledge and skill, labour power, membership of a particular community, etc. Furthermore, the word 'legally' has to be interpreted broadly to mean conforming to established social norms and practices, and not merely to what is sanctioned formally by the state.[2]

The *entitlement set* is defined as the set of all possible combinations of goods and services that a person can legally obtain by using the resources of his endowment set. This cryptic definition calls for a little elaboration, however. First, the definition recognizes that from any given set of resources one may be able to obtain many different combinations of final goods and services, although at any point in time a person will be seen to be enjoying only one of those possible combinations, depending on her tastes and preferences. The entitlement set refers to *all* the possible combinations, not just the one actually being enjoyed. Second, resources may be *used* in many different ways to obtain the final goods and services. For example, a farmer may use his land, labour, and other resources to *produce* the food he wants; a labourer may *exchange* his labour power to secure his food; a fisherman may first use his labour, equipment and fishing boat to *produce* a catch of fish and then *exchange* it to get the rice he wants; an unemployed person may use his resource of 'citizenship of a welfare state' to claim a *transfer* of state funds in the form of unemployment benefit. These acts of production, exchange, and transfer are all different ways of using one's resources. Third, the manner in which a person uses his resources must have the sanction of the law of the

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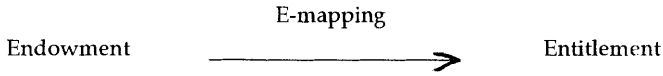
[2] The need for adopting such a broad interpretation arises from the fact that while legal ownership in the modern sense is often non-existent in traditional societies, especially in relation to landed property, some notion of ownership nonetheless exists based on conventions.

land, again interpreted in the broadest sense of the term; thus, the commodities he can obtain through looting (by using his muscle power in an illegal fashion) are not counted as part of the entitlement set.

The *entitlement mapping*, or *E-mapping*, is simply the relationship between the endowment set on the one hand and the entitlement set on the other. Roughly speaking, it shows the rates at which the resources of the endowment set can be converted into goods and services included in the entitlement set. For example, an E-mapping includes, for the farmer, the input-output ratios in farm production; for the labourer, the ratio between money wage and the price of food i.e., the real wage rate; for the fisherman, both the input-output ratio in fishing and the relative price of fish and rice; and for the unemployed person, the rate of unemployment benefit. Thus, an E-mapping would in general have three broad components: a production component containing various input-output ratios (or, more generally, production functions), an exchange component made up of rates of exchange involved in trading[3,4], and a transfer component.[5]

The following diagram shows the relationship among the three basic concepts:

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[3] Note that wage employment i.e., the trading of labour-power, is a part of the exchange mapping. Ghose (1982) seems to have overlooked this point when he suggested that Sen's framework of 'exchange entitlement' needs to be broadened to include analysis based on 'employment entitlement'.

[4] Strictly speaking, the exchange mapping includes, in addition to rates of exchange, also any restriction that may exist on trading, such as quantity rationing, involuntary unemployment, etc.

[5] It is worth noting that the transfer component includes only those transfers to which a person is legally entitled -- for example, social security provisions of the state. This leaves out not only illegal transfers (such as, stealing and looting), but also non-entitlement transfers, such as charity. Although there is nothing illegal about receiving charity, it is not counted as part of entitlement mapping for the simple reason that one is not legally entitled to charity, whatever may be one's view about the poor's moral entitlement to it. The general point is that entitlement analysis is concerned with legal as distinct from moral entitlement.

Next follows the concept of *entitlement failure,* which is derived from the three basic concepts and plays a crucial role in the analysis of famines. A person is said to suffer from the failure of food entitlement when her entitlement set does not contain enough food to enable her to avoid starvation in the absence of non-entitlement transfers, such as charity. It means that no matter how a person may reallocate resources to obtain the food she wants, she cannot get the minimum amount needed to escape starvation. A *famine* occurs when a large number of people within a community suffer from such entitlement failures at the same time.

It is useful to note at this stage one important aspect of the causal structure that binds these concepts together. A moment's reflection will show that while all three basic categories can in principle affect each other, there nevertheless exists an important asymmetry between entitlement on the one hand and endowment and E-mapping on the other. In the case of both endowment and E-mapping, the definitions allow for the effect of exogenous factors i.e., it is granted that either of them may change without any prior change in any of the other two categories[6], but the same is not true of entitlement. Since the entitlement set is derived by applying E-mapping on the endowment set, it is only through changes in either endowment or E-mapping that any change in entitlement can occur. Note that this is not a theory or a hypothesis, but simply a logical implication of the definitions. It then follows that 'entitlement failure', and thus famine, can only occur through some adverse change in either endowment or E-mapping or both. This leads to the useful organising principle that all possible causes of famines can be classified into two broad groups: one that affects the endowment set and the other that affects the entitlement mappings. In a sense, this organising principle can be regarded as the core of the entitlement approach; we shall come to appreciate its significance as we proceed further.

For some purposes, a slightly different way of classifying the causal factors may be useful. Noting that E-mapping consists of three different kinds of relations, viz. production, exchange, and transfer, one can identify four distinct sources of entitlement failure. These are: endowment loss,

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[6] For example, endowment may change exogenously when a farmer happens to inherit the land of his father, or E-mapping can change exogenously when, for instance, adverse whether reduces the crop output, or the government raises the price of rationed food, etc.

production failure, exchange failure, and transfer failure. For people who do not rely primarily on exchange to obtain their staple food, entitlement failure would occur through the first two of the four channels. This case is described by Sen as *direct entitlement failure.* When exchange is involved, then any one of the first three channels may act as the conduit of entitlement failure. For example, a fisherman may lose his boat (an endowment loss) which will prevent him from catching the fish that he must exchange in order to get his staple food, rice; or, his boat may be intact but his catch of fish may still be too inadequate (production failure) to be exchanged for the minimum amount of rice he needs; or, both endowment and production may remain intact, and yet he may not get enough rice because the relative price of fish has slumped (exchange failure). In all these cases, a *trade entitlement failure* will be said to have occurred.[7]

The point of this dichotomy between *direct* and *trade* entitlement failures is to draw attention to the fact that the genesis of famines may be very different as between subsistence and exchange economies. Direct entitlement failures have traditionally been the major cause of famine in the subsistence-oriented peasant economies of the past. But in the modern exchange economies, famines caused by trade entitlement failures is a very distinct possibility. Indeed, one of Sen's major contributions to our understanding of hunger has been to demonstrate how this distinctive mechanism has been at work in modern-day famines.

### *Transition in the Conceptual Framework*

The preceding discussion has been based on the formulation presented by Sen in his book *Poverty and Famines* and in his subsequent writings. In both terminology and content, this formulation differs somewhat from Sen's earliest presentations of the entitlement approach (for example, in Sen 1977). The newer framework is, in my view, more complete and consistent. But it is my impression that the transition that has taken place in the conceptual

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[7] It should be noted that unlike the dichotomy between endowment failure and mapping failure, this dichotomy between direct and trade entitlement failures is neither disjoint nor exhaustive. It is not disjoint because both direct and trade entitlement failures can occur due to endowment loss or production failure. And it is not exhaustive because it leaves out the possibility of transfer failure.

framework has gone largely unnoticed, so that while commenting on the entitlement approach people still often cling to the older framework. This has sometimes resulted in a misunderstanding about the nature and objective of the entitlement approach, leading also to unwarranted criticisms. It is therefore necessary to clarify how the formulation has changed over time.

It is useful to begin by considering the term 'exchange entitlement' -- a term we have not used so far (for reasons to be explained below). It was in the language of 'exchange entitlement' -- rather than 'entitlement', without the qualifier 'exchange' - that Sen originally launched his analysis of famines; specifically, famine was described as the failure of exchange entitlement. The term was defined as follows:

> "With an initial endowment x of commodities (including labour), the exchange entitlements offered by a particular set of market configurations (in addition to direct production possibilities) can be seen as the set S(x) of all commodity bundles that can be acquired starting from x. (Formally, therefore, the set of exchange entitlements can be seen as a mapping S(.) from a given person's endowment vectors to availability sets of commodity vectors.)" (Sen 1977, p.34)

Two features of this definition are worth noting. First, Sen seems to suggest that 'exchange entitlement' stands for both S(x) and S(.) -- the entitlement set and the entitlement mapping respectively, as we have called them. The first sentence points to entitlement *set*, but the second sentence, within parenthesis, seems to point to entitlement *mapping*. Secondly, the definition of exchange entitlement seems to exclude the 'production' channel of converting endowments into entitlements.

Although formally both the set and the mapping were implied by the term, it is clear from Sen's subsequent remarks that his stress was on the mapping interpretation. One of the clearest examples is the following statement: "Even in an exchange economy, starvation can result from the loss of assets (including health) *rather* than exchange entitlement variations." (Sen 1977, p.35; emphasis added.) Sen is drawing a distinction here between starvation caused by loss of assets and starvation caused by exchange entitlement variation. But the need for this distinction would not arise if the term exchange entitlement were to refer to the set S(x), for in that case

starvation caused by loss of assets would also be called starvation due to exchange entitlement variation. By making this distinction then, Sen must be implying that exchange entitlement variation refers only to the shift in S(·). In other words, the term exchange entitlement is to be equated with the mapping S(·), as distinct from the set S(x).

The second feature of the definition -- namely, the exclusion of the production channel - - also gets further support from various remarks of Sen. For example, "... famines *can* certainly take place *without* shifts in exchange entitlement. An example is a famine affecting people who typically eat what they produce, e.g. hunters, or peasants in an economy with little exchange." (Sen 1977, p. 35; emphasis original.)

These two features of the original formulation imply a certain restriction on the concept of 'failure of exchange entitlement' (FEE). Insofar as exchange entitlement refers only to the mapping, starvation caused by the loss of assets would not qualify as a case of FEE; similarly, insofar as the production channel is excluded from the mapping, starvation suffered by direct producers of food due to a crop failure would not count as FEE. Accordingly, when famine is said to be caused by the failure of exchange entitlement, some categories of famine will be left out of reach of the entitlement approach. As we shall see later in the paper, this implicit restriction has been responsible for a good deal of confusion about the real message of the entitlement approach.

It should be noted that the restrictive nature of this formulation had a certain redeeming logic in the particular context in which it arose The context was the great Bengal famine of 1943, and Sen was arguing that the proximate cause of this famine was neither loss of production nor loss of assets, but adverse shift in people's command over food in the market place. Given this hypothesis, there was no great harm in excluding production loss from the analytical framework. Also, it made sense to stress the mapping interpretation of exchange entitlement, even though formally one could refer to both the set and the mapping in the same breath. There was no inconsistency in doing the latter, because if loss of assets (x) is disregarded then any variation in S(x) must come solely from variation in S(·), and any variation in S(·) must be reflected fully in a corresponding variation in S(x).

So, for the purposes of that specific empirical analysis, his formulation of exchange entitlement was not particularly problematic.

But as Sen later extended his analysis to other instances of famine, where the loss of both production and assets had played a more prominent role, the need for a more general framework became obvious. It was then no longer possible to exclude production; and, moreover, if entitlement variation caused by loss of assets was to be allowed, then it would have been singularly confusing to describe both S(x) and S(·) by the same term. Both these concerns are taken care of in the formulations presented in Sen's later writings, beginning with Sen (1981a, 1981b). In the first place, production is explicitly included, along with exchange and transfer, in the definition of mapping. Secondly, two distinct terms are now employed to refer to the set and the mapping. The precise manner of making this distinction has itself seems to have undergone some change over the years. The latest position, as spelt out in Drèze and Sen (1989, pp. 9-10, 23), seems to be as follows. The set is now described as the 'entitlement set' or just 'entitlement' (leaving out the qualifier 'exchange'), while the mapping is described by 'exchange entitlement', or 'exchange entitlement mapping', or simply 'E-mapping'. Famine is now defined as 'entitlement failure', rather than 'exchange entitlement failure' as in the past, thus leaving no room for doubt that famines caused by both endowment loss and mapping failure belong to the domain of entitlement analysis.

We have followed this formulation closely in this paper, with the exception that the qualifier 'exchange' has been eliminated not only from the description of the set but also from that of the mapping. This has been done mainly to avoid any confusion that might arise from the term's original association with a more restricted framework of analysis.[8]

To recapitulate, the original framework was restricted in two ways: 1) entitlement failure was seen to arise solely from variation in entitlement

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[8] There is also a second, essentially semantic, reason for avoiding it. Since exchange is only one of the three components of mapping (the other two being production and transfer), it does not seem very illuminating to use 'exchange entitlement' as a synonym for 'entitlement mapping'. Sen of course argues that production can also be seen as an exchange -- to wit, an exchange with nature; but that still leaves out transfer, which is typically unilateral in character and thus rather hard to be seen as an act of exchange.

mapping, and (2) entitlement mapping was defined so as to exclude production. Both these restrictions were removed in the subsequent generalized framework, in which (1) entitlement failure was seen to arise from changes in both endowment set and entitlement mapping, and (2) entitlement mapping was defined comprehensively to include production, exchange, and transfer.

## 3. The Entitlement Approach to Famine: What Does It Say?

The entitlement approach was designed initially to investigate the causes of famine. But what exactly does it say about causation? To put it most succinctly, it says: famines are caused by entitlement failure. But this does not help matters much because different people seem to attach different meanings to this statement. Underlying these differences are alternative interpretations of what the entitlement approach is supposed to be about.

### *Three Interpretations of the Entitlement Approach:*

Broadly speaking, one can distinguish three different levels of interpretation of the entitlement approach: as a *specific hypothesis* which stresses the non-importance of food availability for modern famines, as a *general hypothesis* which lays stress on the failures of entitlement mapping for understanding famines in exchange economies, and as a *general framework* for analysing famines in any economy. More fully, we may set out these alternatives as follows:

(1) *Specific hypothesis*: Modern famines are caused not so much by reduced availability of food, as by adverse changes in the entitlemen mapping of the poor -- in particular, by deterioration in the exchange component of the mapping.

(2) *General Hypothesis*: In an exchange economy, famines are caused not so much by endowment failure, as by adverse changes in the entitlement mapping of the poor -- in particular, by deterioration in the exchange component of the mapping.

(3) *General Framework*: By seeing famines as entitlement failure, and by noting that entitlement failure can only occur because of an adverse change in either endowments or entitlement mappings, the entitlement approach offers a useful organizing framework for studying the causes of famines in any kind of economy.

The first interpretation places the entitlement approach in direct contradiction with the popular notion that famines are caused by reduced availability of food -- a notion that has been dubbed by Sen as FAD (acronym for 'food availability decline'). To accept the entitlement approach is thus taken to imply the denial of the FAD hypothesis.[9]

The second interpretation, by contrast, does not deny that famines can be caused by food availability decline; but it insists on three things: (a) if food availability does play a role, it will do so mainly by worsening the entitlement mapping of a person (for example, by raising the price of food); (b) factors other than food availability decline can also cause famines by worsening the entitlement mapping; for example, a general inflationary pressure fuelled by excessive monetary expansion can do so by raising the price of food; and (c) whatever it is that causes famine in an exchange economy will typically do so by worsening the entitlement mapping as opposed to depleting the endowment set. It is this interpretation that seems to lie behind one strand of opinion which takes the entitlement approach to mean that famines are all about loss of purchasing power.[10]

This is clearly a more general hypothesis than the previous one, insofar as it allows that famines can be caused by food availability decline as well as by other factors. Although very general, this is still an empirical hypothesis, however, in the sense that it is a falsifiable proposition. It denies

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[9] Rangasami is not alone in accepting this interpretation when she says, "Amartya Sen's contribution that famine *is not* caused by a 'fall in food availability' is of critical importance." (Rangasami 1985, p.1797; emphasis added.)

[10] See, for example, Kula (1989, p.13): "... the so-called entitlement approach, which attributes famines primarily to decline in purchasing power amongst sections of the population."

something that is in principle testable -- specifically, it denies that depletion of endowment sets is a major cause of famines in the modern world.

By contrast, the third interpretation is not really a hypothesis at all. In this interpretation, to say that famines are caused by entitlement failure is not, strictly speaking, a causal statement but a definitional one. That is to say, entitlement failure defines rather than causes famines. It is, however, a very useful definition for the purpose of organising the search for causes; it immediately focuses the mind of the analyst searching for causes, since by definition entitlement failure can only occur either through endowment loss or through the breakdown of entitlement mapping. The rationale of the entitlement approach is then not to suggest, or to deny, any particular hypothesis about what causes famines, but to direct the search for causes into two broad channels -- one involving the endowment set and the other involving the entitlement mapping. The entitlement approach is thus essentially a framework of analysis.[11]

I shall argue that it is the third interpretation -- which I shall call the *approach-view* -- that can be ascribed to Sen himself. He is in fact quite categorical about this, as the following statements would testify: "... the entitlement approach provides a general framework for analysing famines rather than one particular hypothesis about their causation." (Sen 1981b, p. 162); and again, "... the main interest in the approach does not, I think, lie in checking whether most famines are related to entitlement failures, which I suspect would be found to be the case, but in characterizing the nature and causes of entitlement failures where such failures occur." (Sen 1981b, p. 164)

But we don't have to take Sen's words for it; as we shall see below, the approach-view is also the only interpretation that is consistent with the generalized conceptual framework developed in *Poverty and Famines*. In spite

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[11] Actually, in a very weak sense, it too represents a hypothesis since it too denies something that is in principle testable. Recall that the entitlement set is defined as the bundles of goods and services that can be *legally* obtained starting from the endowment set, which is itself defined as having the sanction of the law. So a crisis originating from extra-legal claims on resources will not be recognized as such by the entitlement approach. Furthermore, by insisting that famines are caused by entitlement failure, one denies also that famines can be a matter of wilful starvation. However, since both these are very unusual circumstances (at least as a mass phenomenon), their denial does not constitute much of a hypothesis. For more on this point, see Sen (1981b, p. 164).

of that, the first two interpretations -- which together I shall call the *hypothesis-view* -- continue to be popular, long after the publication of that book. Why? Without first answering this question, one cannot make a fully convincing case for accepting the third interpretation. So that is what I try to do below. I first speculate on why the hypothesis-view has seemed plausible to so many people, then explain why this view has to be rejected despite its apparent plausibility, and in the process establish the case for the approach-view.

I believe there are two main reasons for the continued popularity of the hypothesis-view. First, this is partly a legacy of Sen's initial formulation of the entitlement approach which appeared to give some support to the first two interpretations. Secondly, the nature of Sen's criticism of FAD has been widely misunderstood. Parallel to the distinction between entitlement hypothesis and entitlement approach, there is also a distinction between FAD hypothesis and FAD approach. Sen's objective was to criticise the FAD approach; but this was misinterpreted as the rejection of the FAD hypothesis, which in turn led to the view that he was trying to propose an alternative hypothesis.

*Legacy of The Initial Formulation*

We have seen earlier how the term 'exchange entitlement' was given a dual meaning in Sen's original formulation of the entitlement approach. According to one of its two meanings, 'exchange entitlement' referred to the *mapping* from endowments to food availability, *excluding* the production channel. So the failure of exchange entitlement (FEE) would refer only to those instances of starvation which are *not* induced by adverse changes either in endowments or in production mapping.

It is possible that this restriction on the meaning of FEE has contributed to the popularity of the hypothesis-view of entitlement theory. Suppose a famine strikes by reducing the subsistence production of food for a large number of farmers. Then the restriction implies this will not be a case of failure of exchange entitlement (FEE), but it will certainly be a case of food availability decline (FAD). FEE and FAD can thus be seen as alternative

explanations of famine. From here it is a small step to argue that holding the view that famines are caused by FEE implies the denial of FAD, which is precisely what is argued in the first interpretation of the entitlement approach.

The second interpretation also follows from the same restriction specifically from that part of the restriction which excludes starvation due to adverse changes in endowments. Because of this exclusion, the act of equating famines with FEE can be seen as tantamount to proposing the hypothesis that famines are caused *only* by adverse changes in entitlement mappings. This is of course precisely what is suggested by the second interpretation of the entitlement approach.[12]

Thus both variants of the 'hypothesis view' of entitlement theory can be seen to derive their sustenance from the restrictive nature of its initial formulation. But this interpretation can no longer be sustained as soon as one embraces the general conceptual framework developed in *Poverty and Famines*. The crucial distinguishing feature of this framework, as contrasted with the initial formulation, is that entitlement failure now becomes a comprehensive concept, without any restriction whatsoever on the kind of starvation it is allowed to encompass.[13] Entitlement, it may be recalled, is defined in this framework as the entitlement set, not as the entitlement mapping; and in defining the entitlement set, all possible mappings are considered, including the production mapping. So any adverse change in the endowment set, or in any of the mappings -- including the production mapping -- will have its repercussions on a person's entitlement. Accordingly, entitlement failure (FEE) will now refer to any kind of starvation -- whether it originates from endowment loss, or production failure, or from the failure of any other mapping.[14]

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[12] Sen himself appears to lend support to this interpretation by saying, "The exchange entitlement approach focuses on shifts in the mapping S(.), which depends on relative values, rather than shifts in x (i.e. amounts of physical endowments)." (Sen 1977, p. 35)

[13] Save the minor, and rather unlikely, exceptions mentioned in the footnote 12..

[14] Note that although by entitlement failure we are now referring to the contraction of the entitlement set, rather than the failure of exchange entitlement mapping, we continue to use the acronym FEE for entitlement failure in deference to the currency it has gained in the literature.

Since FEE now embraces all kinds of starvation, the statement that famines are caused by FEE must be definitionally true; as such, it cannot contain any causal hypothesis. Specifically, since starvation due to endowment loss is also now included in FEE, it is no longer possible to say that the entitlement theory deals *only* with the hypothesis that famines are caused by the failure of entitlement mapping. Thus the second interpretation can no longer be sustained.

The same is true about the first interpretation: one can no longer interpret entitlement theory as the denial of FAD. It is, once again, the comprehensive nature of the concept of FEE that rules out this interpretation. Think of any conceivable way in which FAD can cause starvation -- this will be seen as a case of entitlement failure. For example, if FAD occurs due to loss of production, then the subsistence producers will face what has been described earlier as 'direct entitlement failure'. If the loss of production also causes starvation to wage-labourers by forcing them out of employment, or by reducing their wages, this will entail the failure of exchange mapping, leading to 'trade entitlement failure'. If the reduced availability of food causes distress to purchasers of food by raising its price, then this will be another case of 'trade entitlement failure'. Thus one way or the other, FAD can only operate by causing entitlement failures, so that any case of FAD-induced starvation must count as a case of FEE. As a result, when the entitlement theory defines famine as FEE, it cannot logically rule out the FAD hypothesis. The true relationship between FAD and FEE is then one of subsumption rather than contradiction.

Thus neither of the two hypothesis-view interpretations is consistent with the comprehensive framework of entitlement analysis. The only valid interpretation is the third one, which purports to advance no causal hypothesis, only an organising framework within which various causal influences can be systematically explored.

It is now easy to see why the entitlement approach has been subject to a variety of interpretation. At least in part, this was due to the transition that had taken place in the framework of entitlement analysis. In one of the earliest responses to Sen's work, Alamgir (1980) had popularized the contest between FEE and FAD as the essence of the entitlement approach. For this,

he was later chastised by Reutlinger (1984), who argued that this contest was invalid because "The attribution of a famine to FEE is not a hypothesis at all ... By definition, a famine is a FEE ... " (p. 885). This exchange neatly reflects the transition mentioned above. Alamgir was referring to the restricted formulation given in Sen (1977); and, as we have seen, this formulation did make it tempting to see FEE an alternative to FAD. Reutlinger, on the other hand, was reviewing the book *Poverty and Famines*; and, having absorbed the book's message that the entitlement approach was to be seen as a general framework of analysis which subsumes FAD, he went on to criticize Alamgir.

Since the framework of *Poverty and Famines* has superseded Sen's earlier writings, all those who, unlike Alamgir, wrote after its publication ought to have shared Reutlinger's understanding. Yet, many of them did not; the hypothesis-view, and especially the anti-FAD interpretation of entitlement theory, has continued to hold its sway.[15] One can only suspect that the striking novelty of Sen's earliest writings on this matter has left such a lasting imprint on his readers' minds that many of them have failed to notice the subsequent transition.

But I believe there is also another, perhaps more important, reason. This has to do with a misunderstanding about exactly what Sen was up to when he was lambasting the FAD view of famine.

### *FAD versus FEE: Hypothesis or Approach?*

In all of his writings on famines and related matters, especially in his early writings, Sen has been utterly scathing in his criticism of FAD.[16] This has helped foster the notion that Sen's objective was to debunk the FAD

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[15] Thus, for instance, even as late as in 1988, seven years after the publication of *Poverty and Famines*, Arnold finds it a weakness of the entitlement approach that it is not 'difficult to find examples of famines where there is clear evidence of a serious shortfall in food availability.' (Arnold 1988, p. 45).

[16] So much so, that even such a sympathetic commentator as Reutlinger (1984, p.885) was led to conclude: "Sen himself, in my view, has overreacted to the excesses of those who hold that famines are caused by a food availability decline."

hypothesis and to advance his own entitlement approach as an alternative hypothesis of famine causation. But, in my view, this is a misreading of his work. What Sen was actually doing was to pose a contest between the entitlement *approach* and the FAD *approach*, not between some entitlement *hypothesis* and the FAD *hypothesis*.

To see the contrast between these two contests, one first has to see the distinction between the *FAD hypothesis* and the *FAD approach*. To an extent, this distinction is the one between the specific and the general, though there is more to it than that. To say that a particular famine has been caused by serious shortfall in food availability is to advance the *FAD hypothesis*. To say that many a famine are caused by sudden decline in food availability is to express a judgement that the FAD hypothesis has wide applicability -- but one is still talking about a hypothesis. But to say that the best way to understand famines -- all famines -- is to look at what has happened to aggregate food availability is to propound the *FAD approach*.

It is the FAD *approach* whose usefulness Sen has so vehemently denied. There are two reasons for this denial, which also constitute the reasons for preferring the entitlement approach. These two reasons can be described as *plurality of causes* and *asymmetry of impact*.

*Plurality of Causes*: Famines can occur without any decline in food availability; in such cases, the FAD approach is evidently useless, while the entitlement approach is eminently suitable. Recall the organising principle of the entitlement approach: it directs the search for causes into two broad channels -- viz, endowment loss and mapping failure -- because whatever it is that causes famine must work through either of these channels so as to impinge eventually on the entitlement set. So, if a famine happens to be caused by something other than food availability decline, the entitlement approach should in principle be able to identify the cause, while the FAD approach will have no clue about it.

*Asymmetry of Impact*: Whether nor not availability decline plays a causal role, the FAD-ist way of focussing on aggregate availability is not terribly illuminating, because famines typically affect some groups of people more than others, and some not at all; and we shall never know why this is so by looking simply at aggregate availability of food. By contrast, the

entitlement approach should be able to explain such asymmetries by looking separately at the entitlement sets of different socio-economic classes.

These arguments are good enough to establish the superiority of the entitlement approach at the conceptual level. But Sen was not content merely to conduct the argument at an abstract level; he was also concerned to show that these analytical grounds were not empirically empty. This is what his four case studies in *Poverty and Famines* were meant to achieve. In each of these cases, he attempted to show that the FAD hypothesis did not hold. As a result, his empirical studies have an unmistakable flavour of being against the FAD hypothesis.

It is this which has led many to believe that Sen's objective was to debunk the FAD hypothesis and to put some entitlement hypothesis in its stead. But actually, the denial of the FAD *hypothesis* in those specific cases was only a means towards justifying the general denial of the FAD *approach*, which was the real goal. In order to establish the first ground for rejecting the FAD approach -- viz., plurality of causes -- he had to show that famines could occur without food availability decline; and that is what his case studies purported to show.

The 'means-goal' distinction between the two denials has an important implication for the kind of attitude an entitlement analyst ought to have towards the FAD hypothesis. In order to achieve the goal of debunking the FAD approach, it is not necessary to debunk the FAD hypothesis *generally*; that is to say, it is not necessary to claim that the FAD hypothesis can never be valid. All one needs to show is that the FAD hypothesis did not hold in <u>some</u> instances of famine, for this is good enough to establish the 'plural cause' ground for debunking the FAD approach. To put it differently, while the entitlement analyst will deny that food availability decline is a *necessary* condition of famine, he does not have to deny that it may be *sufficient* in particular instances.

It is also important to note that by allowing the sufficiency of FAD in particular cases, the entitlement analyst does not have to face any contradiction with his own approach, because, as we have seen, his approach is comprehensive enough to subsume the cases of FAD-famine.

That is why, the entitlement approach has no real quarrel with the FAD hypothesis; its quarrel is only with the FAD approach.

Once it becomes clear that Sen's argument was not with the FAD *hypothesis* as such, it also becomes obvious that he was not proposing any alternative entitlement *hypothesis*. The argument was against the FAD *approach*, and his proposal was to replace it with the entitlement *approach*. Unfortunately, this distinction between hypothesis and approach has been lost on many a commentator, leading to a good deal of confusion as to what the entitlement analysis is all about and also, as we shall see in the next section, a good deal of misplaced criticism of the entitlement approach.

There is also a related confusion that persists even among those who seem to appreciate the fact that Sen's argument is really with the FAD *approach*. The following statement contains a typical expression of this confusion: "Sen's immediate aim throughout 'Poverty and Famines' is to discredit the traditional supply-side views of famines, which he labels the Food Availability Decline (or FAD) approach..." (Baulch 1987, p.195.) The confusion here consists in thinking that the essential feature of the FAD approach is its focus on the supply side, which the entitlement approach supposedly rejects in favour of demand side.[17]

In fact, the entitlement approach has nothing against the supply side; but it insists that the supply-side effects ought to be analyzed, not in terms of what they mean for aggregate food availability, but in terms of what they mean for the entitlement sets of different socio-economic groups. That is to say, it requires us to undertake a detailed and disaggregated study of how the supply side, as well as the demand side, affects the endowments sets and entitlement mappings of different people. In doing so, moreover, the entitlement approach insists that the supply-demand considerations must not be limited to the market for food alone. Instead it requires us to look at all related markets, such as the market for labour, and the market for whatever a person may be selling in order to acquire food, and also at macroeconomic variables such as inflation, exchange rate, etc., all of which may affect a

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[17] See also Devereux (1988, p.272): "... entitlement is usually seen as a theory which focuses on demand failure, as contrasted with FAD, which emphasizes food supply failure."

person's command over food. In short, the entitlement approach calls for the use of the general equilibrium method.

However, even the contrast between supply-side focus and general equilibrium does not fully capture the difference between the FAD approach and the entitlement approach. A crucial difference lies in the level of aggregation used. What the entitlement analyst finds particularly inadequate about the FAD approach is not so much its concern with supply as its focus on *aggregate* availability. By the some token, an aggregative general equilibrium analysis at the level of the whole economy would hardly be satisfactory from his point of view. What he demands is a general equilibrium analysis of the various forces affecting the *disaggregated* entitlements of different social classes.

Therefore, the real contrast between the FAD approach and the entitlement approach is not one between supply side on the one hand and demand side on the other, nor even supply and demand combined on the other, but one between *aggregate* availability on the one hand and *disaggregated* entitlements on the other. Disaggregation is an essential feature of the entitlement approach.[18]

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[18] It is therefore surprising to find that Patnaik should accuse the entitlement approach of lumping together such diverse social classes as property-owners and wage-labourers: "The theoretical attempt to incorporate *both* social types under a generic concept appears to underlie the notion of exchange entitlement; for in this attempt, possession of means of production (enabling the production of commodities) and possession of labour power alone are treated on par conceptually and subsumed under a single idea of 'endowment'. (Patnaik 1991, , p.2.) She is apparently forgetting here that an analysis can be conducted at different levels of abstraction. What is a 'single idea' at the highest level of abstraction may need to be differentiated at a lower level. To draw an analogy from a field with which Patnaik should be thoroughly familiar, 'mode of production' is a single idea at the highest level of abstraction in the Marxist theory of history, but this does not mean that at the level of analysing concrete societies one can treat feudal and capitalist modes of production at par conceptually. In exactly the same way, endowment and entitlement may be expressed as single ideas at the highest level of abstraction, but this does not mean that at the level of empirical analysis of famines entitlements of those possessing means of production are to be treated at par with entitlements of those possessing only labour power. In fact, the very idea that these two cannot be treated at par is part of the motivation behind moving away from the aggregative FAD approach.

*What the Entitlement Analysis is All About: In Five Capsules*

To recapitulate, I shall sum up in the form of five brief propositions what, in my view, the entitlement approach to famine claims and what it does not.

First, the entitlement approach does not offer any hypothesis - either specific or general -- about the causes of famine. In particular, when it is said that famines are caused by entitlement failures, this is not really meant to be a causal statement but a definitional one -- i.e., entitlement failure on a massive scale is to be seen as a definition rather than a cause of famine. The restrictive nature of Sen's earliest formulation of his analysis may have helped in part to promote the idea that he was suggesting a causal hypothesis, one that pits itself against the traditional hypothesis of food availability decline (FAD). But the framework of analysis developed in *Poverty and Famines* makes it abundantly clear that he was really proposing a general approach -- i.e., an organising framework for analysing famines, or a framework for investigating many possible causal hypotheses -- without being committed to any particular hypothesis. As a result, there is no such thing as an entitlement *hypothesis*; all we have is the entitlement *approach.*[19]

Second, the essence of the entitlement approach to famine is to explore the causes of entitlement failure by undertaking a disaggregated analysis of the entitlement sets of different socio-economic classes. Since the entitlement set is determined entirely by the endowment set and the entitlement mapping, such an analysis immediately directs our search for causes towards forces affecting endowments on the one hand and mappings on the other. In so doing, this approach allows us to evaluate a rich variety of causal hypotheses, which may include food availability decline as one of the contenders but need not be restricted to it.

Third, just as the entitlement analysis does not offer any particular hypothesis, so it does not deny any either. Specifically, contrary to a common misconception, it does not deny that famines can sometimes be caused by food availability decline. But it does deny two things. First, it

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[19] We may also speak of the entitlement *theory*, so long as we interpret theory broadly to mean a theoretical approach, not narrowly in the sense of a causal hypothesis.

denies that famines are necessarily preceded by availability decline; in other words, it denies the *necessity* of the FAD hypothesis, without questioning its *sufficiency*. Secondly, the entitlement approach altogether denies the usefulness of the FAD *approach*, which refers to the traditional practice of regarding aggregate food availability as the focal variable for famine analysis. The contest is therefore between two approaches, not between two hypotheses. The entitlement approach subsumes the FAD hypothesis, but rejects the FAD approach.

Fourth, the contrast between the entitlement approach and the FAD approach should not be seen, as it has sometimes been done, as a contrast between demand side and supply side focus. The real contrast lies in the fact that the FAD approach focuses on *aggregate* availability, while the entitlement approach looks at *disaggregated* entitlements of different individuals or classes. In doing so, the entitlement approach considers supply, demand, and all other relevant variables within a general equilibrium framework.

Fifth, the entitlement approach claims superiority over the FAD approach on two grounds: (a) *Plurality of Causes*: there are famines that are not caused by food availability decline; in such cases, the FAD approach is totally useless, if not dangerously misleading, whereas the entitlement approach is in principle capable of identifying and analysing any such non-FAD famine; and (b) *Asymmetry of Impact*: regardless of whether or not food availability decline acts as a causal mechanism, the focus on aggregate availability cannot explain why and how certain specific classes fall victim to famine while others escape; the entitlement approach, by contrast, is ideally suited for such disaggregated analysis.

## 4. Criticisms of the Entitlement Approach

In the light of the preceding discussion we can now proceed to evaluate the various criticisms that have been made of the entitlement approach. For analytical convenience, we may group most of these criticisms under a number of headings.

One set of criticisms interprets the entitlement approach as a specific hypothesis, and then goes on to show that this hypothesis is not always valid. We have grouped them under the heading *(i) The Entitlement Approach has Limited Applicability.* Next follows a set of criticisms which purport to expose certain weaknesses of the entitlement approach as an analytical tool for famine analysis. These are classified under two headings: *(ii) The Entitlement Approach is Not Sufficiently Backward-Looking,* and *(iii) The Entitlement Approach is Not Sufficiently Forward-Looking.* Finally, there is yet another set of criticisms which question whether there is anything new in the entitlement approach. These are also classified into two groups: *(iv) The Entitlement Approach Says Nothing New: Conceptually,* and (v) *The Entitlement Approach Says Nothing New: Historically.*

***(i) The Entitlement Approach has Limited Applicability:***

Several authors have contested Sen's claim that some of the major famines he has examined were of non-FAD origin. The argument has raged mostly over the Great Bengal famine of 1943 and the African famines of the 1970s. Who has had the better of the argument, though an important issue in its own right, is not something we shall be concerned with in this paper. What concerns us here is the claim of several of these critics that by refuting Sen's empirical analysis, they have discredited the entitlement approach.

A typical example is Bowbrick, who in an extended debate with Sen, has claimed to have refuted Sen's diagnosis of the Great Bengal famine.[20] In his view, food availability decline was, after all, the most important cause of this famine, and not the loss of entitlements due to war-induced inflationary pressure as suggested by Sen. Although his empirical arguments relate to this particular famine, he goes on to draw a general analytical conclusion, which is our main concern here. He argues that "Sen's theory of famine will lead to the wrong diagnosis and the wrong remedies for famine and will therefore worsen the situation." (Bowbrick 1986, p.105)

This conclusion has two parts. There is firstly the claim that it was no accident that Sen misdiagnosed the Bengal famine, because his theory was

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[20] See Bowbrick (1986, 1987) and Sen (1986, 1987). See also, Allen (1986).

such that it could not but lead to the wrong diagnosis. Secondly, such misdiagnosis will worsen the situation further by suggesting the wrong remedies. We shall see that both of these analytical conclusions are false, even if one grants for the sake of argument that Sen did actually misdiagnose the Bengal famine.[21]

The first part of the claim, asserting the inevitability of misdiagnosis, is based on two premises. The first premise holds that "one cannot discuss famines without constantly taking into account aggregate food supply" (Bowbrick 1986, p.106), the implication being that reduction in food supply necessarily plays a part in all famines. Bowbrick, however, simply asserts this proposition because he nowhere establishes the *necessity* of food shortage as a precondition of famine. But he does make a case for its *sufficiency* in the following manner. He defines three different degrees of food shortage: the first degree shortage is defined as the situation in which, despite food shortage, widespread starvation can be avoided by redistributing food in the appropriate way, but the second and third degree shortages are such that not even a perfect distribution can avoid famine. Thus famines will inevitably occur in the event of second and third degree shortages, and may very well occur even in the case of first degree shortage owing to practical constraints on redistribution, especially if the population is already living close to the level of bare subsistence. It therefore follows that food shortage, of whatever degree, will often be sufficient to spark off a famine in a barely subsisting economy.

The second premise consists in Bowbrick's interpretation of Sen's theory as a specific hypothesis that stands in opposition to the FAD hypothesis. He suggests that the entitlement theory proposes a 'redistribution hypothesis', according to which famines are caused simply by redistribution of command over food (away from the poor and the vulnerable), unaccompanied by any reduction in aggregate food availability.

He then goes on to argue that an approach that explains famines in purely distributional terms will inevitably misdiagnose cases involving

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21 Apart from Bowbrick, Alamgir (1980), Basu (1986) and Goswami (1990) have also questioned Sen's belittling of food availability decline as a contributory factor in the Bengal famine of 1943. In my judgement, Goswami's argument, based on an imaginative reconstruction of availability data, comes closest to being convincing.

second and third-degree shortage. For, even if these cases are accompanied by adverse redistribution of food, such redistribution in itself cannot be blamed for the famine because even in the absence of any redistribution famine would still have occurred. The situation is slightly different for first-degree shortage, because it is now conceivable that unless some adverse distribution had occurred the shortage alone might not have been enough to induce famine. Accordingly, Bowbrick is willing to concede some ground to the entitlement approach in the case of first degree shortage. But even in this case he would prefer to take a shortage-focussed view, because even though redistribution may have been the original culprit, there may not exist any feasible method of reversing that redistribution, so that for practical purposes shortage will remain the only operative problem that can be dealt with. Following such reasoning, Bowbrick comes to the conclusion that the entitlement approach will tend to misdiagnose famines in most situations.

His argument would have had some merit if his interpretation of the entitlement approach were valid. But therein lies the problem; as we have explained at some length earlier, it is wrong to think of this approach as proposing a specific hypothesis of famine, let alone a hypothesis that focuses only on distribution. It is of course true that Sen's explanation of the Bengal famine was a purely distributional one; but that does not mean that the entitlement approach as such is to be equated with a distributional explanation of famine. The essence of the entitlement approach is its versatility. If inflationary redistribution was the main factor behind the Bengal famine of 1943, loss of assets was the main cause of the famine that befell the African pastoralists in the 1970s, and dramatic shortfall in food production played a major role in the Chinese famine of 1959-61. Indeed, the whole point of Sen's examination of different famines with the help of this approach was precisely to demonstrate that many different types of causation can be illuminated by this approach -- inflationary redistribution was one of them, but by no means the only one.

Bowbrick's mistake was to seize upon a particular illustration of this versatility as the sole content of entitlement theory. This is what led him to fear that this theory will misdiagnose shortage-induced famines. But once the entitlement theory is seen as a general approach, and not as a specific hypothesis, any such fear should immediately disappear. As has been noted earlier, the entitlement approach does not deny that FAD may be *sufficient* to

induce a famine; only its *necessity* is denied. The repercussions of food shortage, of whatever degree, can be fully accommodated within the comprehensive framework of the entitlement approach. The only difference with Bowbrick would be that instead of linking famine with different degrees of shortfall in aggregate availability, the entitlement analyst will explore how the shortage has affected the entitlements of different groups of people via their endowment sets and entitlement mappings.

Turning now to the second part of Bowbrick's general criticism, one finds an additional error. Not only that he misinterprets Sen's theory; even on his own interpretation he cannot be right in his claim that Sen's theory will lead to the wrong remedies.

Bowbrick contends that, by focusing exclusively on distribution and ignoring aggregate shortage, the entitlement theory will fail to recommend food imports. Presumably, this failure will occur because a theory that explains famines in purely distributional terms will have to recommend that the famine be cured solely by reversing the initial redistribution. But such a strategy, Bowbrick fears, will have disastrous consequences, especially in those instances of famines which are caused by second and third degree shortage, because by definition such shortages are so severe that no amount of redistribution of existing food supply can prevent large-scale distress.

The problem with this argument lies in the presumption that if redistribution causes famine then the only viable policy of famine-relief is to reverse that redistribution. This is no less absurd than the suggestion that when an earthquake causes distress, the only way to help the victims is to 'undo' the earthquake! An entitlement theorist who believes that a famine has happened because of adverse redistribution of an otherwise adequate food supply, is not in fact obliged to rule out the need for bringing in additional supply. He may often find that it is easier to help the victims by augmenting total supply and giving the extra food to the needy than by trying to restore the original distribution of the existing supply. After all, the problem, as he sees it, is that the victims have lost their command over food; so anything that can restore their command would be of help, be it by restoring the original distribution or by bringing extra food to the needy.

Logically, therefore, the necessity of food imports at times of famine should be appreciated no less by those who think that only a redistribution has taken place than by those who think that aggregate availability has declined. So even if the entitlement approach were purely 'distribution-focused', Bowbrick would not need to worry that the entitlement analyst would refuse to recommend importation of food.[22] The fact that in reality the entitlement approach is not so narrowly focused and that it can see a FAD-famine for what it is should allay his fears completely.

Another instance of criticism born out of misinterpretation is that by Devereux (1988). His dispute involves the famine that occurred in 1972-74 in the Wollo province of Ethiopia. Sen (1981b) had earlier suggested that the Wollo famine, like the great Bengal famine, was not caused primarily by food availability decline. This view has come to be challenged recently, as new studies have tended to indicate that the decline in food availability may have been more severe than Sen had thought.[23] Devereux has tried to reconcile the two contending views by arguing that this famine had elements of both FAD and FED (food entitlement decline), the richer among the famine victims being affected by FAD and the poorer by FED.

We shall not go into the empirical question of whether the two segments of famine victims were indeed subject to two different kinds of pressure. What concerns us here is the implication that insofar as only a part of the distress was due to entitlement failure, this famine demonstrates that entitlement failure cannot be a complete explanation of famines.

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[22] There might be a problem if in addition to holding an exclusively distribution-focused view, the analyst also happens to entertain an unjustifiably strong faith in the redistributive capacity of the state. He might then be tempted to recommend reversal of distributional change as an alternative to augmenting food supply; and this would indeed be disastrous in the event of second and third degree FAD-famines. But then an undue confidence in the redistributive capacity of the state would be disastrous in any case, i.e., even in the event of a purely redistributive non-FAD famine. So if the policy advice turns out to be wrong, the fault would lie in overconfidence in the state, not in the use of entitlement approach as such. Once it is understood that there are fairly narrow limits to the state's capacity to reverse large-scale distributional changes, a sensible adherent of the entitlement approach will not shrink from recommending food imports as a good famine-relief policy, regardless of whether or not aggregate food supply has declined. In fact, Sen himself has repeatedly pointed out that food imports may be necessary or at least helpful in most famine conditions, FAD or no FAD. See, for example, Sen (1986, 1987, 1990).

[23] See, among others, Seaman and Holt (1980) and Cutler (1984). Kumar (1990) contains a useful review of the literature.

The problem with this implication should be obvious by now. To say that the distress was partly due to FED and partly to FAD is to assume that FED refers only to those entitlement failures which do not originate from food availability decline. This is simply a legacy of the view that the entitlement approach is meant to be an alternative to the FAD hypothesis. But, as we have seen, this view is mistaken. Entitlement is a comprehensive concept, incorporating the effects of diverse factors, including food availability. So if anyone suffers because of availability decline, he also suffers an entitlement decline. It therefore makes no sense to divide up the famine victims into two groups -- one suffering from FAD and other from FED -- implying thereby that the entitlement analysis applies only to the latter. It is of course conceivable that one group suffers only from the repercussions of aggregate FAD on their individual entitlement sets while another group suffers due to forces that are independent of FAD. But even in that case both groups would be said to be suffering from an entitlement loss -- only the source of the loss would be different; so the entitlement analysis would apply to both.

An extreme form of misunderstanding is revealed by Kula (1988, 1989). He not only interprets the entitlement approach as a specific hypothesis, but also gets the very meaning of entitlement wrong, by identifying entitlement with money income. He notes that during the Chinese famine of 1959-61 the urban people had higher incomes (compared with rural people), and still they suffered more because there was not enough food in the towns -- either in the marketplace or in the public distribution system. Kula interprets this to mean that famine was more severe where entitlement was higher, thus reaching the verdict that "The Chinese famine of 1959-61 offers powerful evidence to contradict Sen's entitlement approach ..." (Kula 1989, p.16.)

But he fails to note that higher money income does not mean higher entitlement if the income cannot be translated into command over food. In his own thinking, famines are linked primarily with wars and political turmoils which either prevent food from being grown or prevent the available food from reaching the needy. But, if for these reasons or for any other, a person cannot get hold of food, then his entitlement to food vanishes no matter how large a money income he may have. So the fact that famine

was more severe among people with higher money incomes in no way contradicts the entitlement approach.

Kula does, however, make a related point which cannot be disposed of by referring to definitions. He questions the adequacy of the entitlement approach because "the drop in entitlements is not the *original cause* for most famines mentioned in Sen's writings." (Kula 1988, p.115; emphasis added.) The original cause lies, in his view, in wars and political turmoils (leaving aside unforeseen natural disasters), so that "the entitlement issue is far from being the major clue to contemporary famines". He accordingly recommends that a policy of famine anticipation should be concerned more with potential political conflicts than with potential entitlement failures. This line of reasoning has a family resemblance to the group of criticisms that I take up next.

*(ii) The Entitlement Approach is Not Sufficiently Backward-Looking*

The point made by Kula that entitlement failure is often not the 'original cause' of famines, has been made by others as well, though in a slightly different way. For example, Arnold (1988), Patnaik (1991) and Rangasami (1985) have all found it a weakness of the entitlement approach that it is not sufficiently cognizant of history. By focusing on entitlement failure, this approach takes a snapshot of the moment when the entitlement set lapses from adequacy to inadequacy, ignoring the long drawn-out processes which have led to that crucial moment. But since a famine cannot be properly understood without understanding those antecedent processes, the critics argue that the entitlement approach fails to give a proper account of famines. This shared judgement is however reached by different critics from slightly different perspectives.

Rangasami (1985) locates the problem in the very concept of famine used by Sen: a situation of widespread starvation leading to abnormally high mortality. She feels that by accepting this common definition of famine Sen has fixed his attention to the very end of a process, because starvation and mortality can only become excessive at the end of a long process of social, economic and biological pressures causing gradual erosion of the staying power of a large number of people. For Rangasami, famine is the whole of

this process, not merely its terminal point. Any analysis of famine must therefore consider the totality of the process. But since the very concept of entitlement failure (i.e., lapsing into starvation) relates to the terminal point, this approach is alleged to be incapable of dealing with famine as a process. Thus she writes : "I will suggest by referring to accounts of historians, nutritionists and others that the perceptions of famine we have today only relate to the terminal phase and not of the entire process ... Consequently, Sen's work which is based on such a definition is inadequate". (Rangasami 1985, p.1748)

Patnaik (1991) follows a slightly different line. She argues that in debunking FAD, the entitlement approach takes an unduly short run view of food availability. She is referring here to Sen's empirical analyses in which he had shown that some of the biggest famines of modern times had occurred without any decline in food availability during the period of famine or the period immediately preceding it. Patnaik agrees that what happens to availability during such short periods may well be unimportant for explaining famines, but at the same time she attaches utmost importance to the long-term trend of per capita food availability. As she puts it: "It would be a grave error to ignore or discount long-term decline in food availability for, as we argue below, and as is indeed obvious on a little reflection, these trends can set the stage for famine even though famine does not thereby become inevitable." (Patnaik 1991, p.3)

She illustrates this point by undertaking a re-examination of the great Bengal famine. While concurring with Sen that war-related inflationary pressure was the immediate cause of the famine, she stresses that the magnitude of the disaster can only be explained when one notes how utterly vulnerable the peasants of Bengal had become as a result of a thirty per cent decline in per capita food availability during the inter-war decades. She alleges that in its preoccupation with the debunking of short-run FAD the entitlement approach loses sight of this important historical process whereby vulnerability to famine is created over a long period.

A similar point was made earlier by Arnold (1988). Noting that Sen had said little about the historical trends of declining food availability, growing debt burden of the peasants, etc, leading up to the great Bengal famine, Arnold seemed to suggest that this bypassing of history was

something that was inherent in Sen's theoretical system. As he put it: "Even the system of 'exchange entitlements' *begs questions* as to why certain sections of society were placed in such dependent and precarious relationships that even without a real decline in the actual availability of food they could still be left without either work or food." (Arnold 1988, p.46; emphasis added.)

The common concern of all these critics is to enter a plea for history. And quite rightly so, because it is undeniable that almost all famines (barring those arising from some unexpected natural disaster) have their roots in the history of a society. A sudden shock, such as the inflationary pressure of the kind experienced in Bengal in the war period, may well be enough to push a lot of people beyond the precipice, but one still has to ask how those hapless people got to the precipice in the first place. For that, one must look back into history, to delineate the socio-economic processes which rendered certain sections of the society vulnerable to sudden sharp shocks. The critics are right in pointing to this need for bringing a historical dimension to the analysis of famine.

What can be questioned though is their belief that the entitlement approach is somehow incapable of doing this job. Especially curious to note is Rangasami's methodological objection. Since the entitlement approach highlights the final denouement of a long process of destitution by defining famine as entitlement failure, it allegedly disqualifies itself from looking back into history. This is like saying that by defining the winner of a race as the runner who reaches the finishing tape first, one is obliged not to enquire what has happened before the final moment of victory!

However, the fact is that in both cases, one ignores the past only for the purpose of *defining* a phenomenon, not for *explaining* it. If one wishes to analyse why and how the winner beat others to the finishing tape, one is compelled to look back -- to see, for example, how he paced himself throughout the race, and even further back, to see how he had prepared himself for the race. In just the same way, by defining famine as the terminal event of entitlement failure, one is obliged to look back into history to see why at that particular point in time a part of the society fell victim to acute starvation.

The essence of the entitlement approach, it will be recalled, is to look closely into a person's endowments and mappings, in order to understand why her entitlement failed, or didn't fail, as the case may be. But nothing short of a proper historical analysis can fully explain how the endowments and mappings of different segments of the society came to be what they were at the moment of final denouement. Therefore, not only is the entitlement approach consistent with a careful analysis of history, it very much demands such an analysis. Far from *begging* the historical question, as Arnold would have us believe, the entitlement approach actually *invites* it.

This argument should suffice to satisfy those who stress the need for historical analysis, generally. But Patnaik also has a specific point that needs to be addressed. She goes beyond the general plea for history by picking up the trend of food availability as an especially important piece of historical information, one that the entitlement approach allegedly ignores at its peril. In doing so, she appears to be according a privileged position to the trend of long-run availability in the scheme of explanation. It is this privileged position that Sen had tried to deny to short-run FAD; Patnaik seeks to restore it to the long-term trend.

I believe the correct response of the entitlement analyst would be to agree with Patnaik that it would be a 'grave error' to ignore long-run trend of availability, but to disagree with her that his approach ignores it, and to disagree also with her attempt to accord it a privileged status in the scheme of explanation. Indeed, at the general conceptual level, the status of long-term FAD is no different from that of short-run FAD -- in both cases the entitlement approach will take into account the impact of availability decline, but without in either case according it a privileged status, *a priori*.[24]

The logic of denying the privileged status can be illustrated from the same empirical context, viz. the Bengal famine of 1943, which Patnaik uses to advance her case. According to her own account, the sharp decline in per capita food production that had occurred in the inter-war period was accompanied by a sharp increase in the production of commercial crops. Two

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[24] This does not imply that the entitlement approach would regard short and long run availability as equally important or unimportant in all instances of famines; it only implies that at the general analytical level there is no basis for thinking that one is more important than the other - their relative importance will vary from case to case.

opposing forces were thus operating on the entitlements of the peasants. While the reduced production of foodgrains had a potentially adverse effect on their entitlements, the increased production of commercial crops could conceivably have offset this effect. But this did not happen, as the offsetting effect turned out to be too weak owing to an iniquitous structure of rewards in the production of commercial crops. The result was that the peasantry was left dangerously vulnerable to external shocks by the time the second World War was breaking out. But since one finds in this account two distinct forces at work in creating famine-vulnerability, there is no *a priroi* reason for picking up one of them for privileged consideration.

The general point is that the 'availability-focused' view is no more defensible in the long run than in the short. However, this does not mean that the long-term trend of food availability will be ignored by the entitlement approach. To think otherwise, as Patnaik seems to do, is to succumb to the common confusion that the entitlement approach advances some specific hypothesis in contrast to FAD. But once it is realized that what is being proposed is a general approach which subsumes FAD along with other possible influences on the entitlement set, it becomes clear that the question of ignoring availability cannot simply arise -- be it in the long run or in the short.

So neither Patnaik, who is particularly anxious to see that long-term food availability trends are given due weight, nor others such as Arnold and Rangasami, who wish to bring in a historical dimension more generally, need have any fear that the entitlement approach is unequal to the task. Yet all of them have expressed deep scepticism, and in support of their view they have pointed out, not without some justice, that Sen's own analyses of actual famines are lacking in historical depth.[25] One must therefore face the question: if the entitlement approach is so eminently suitable for historical analysis, why didn't Sen himself go deep into history? A couple of points are worth noting in response.

First, it is arguable that for his immediate purpose it was not necessary for Sen to look deeply into history. His immediate purpose, it will be

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[25] This is not to suggest that Sen did not consider the historical background at all; the point is rather that he laid much more stress on proximate causes than on historical processes.

recalled, was to demonstrate the power of the entitlement approach over the FAD approach, rather than to provide a comprehensive etiology of particular famines. In order to achieve this limited objective, all that was necessary for him was to show that the entitlement approach can allow for *plural causes* and *asymmetric impact*, neither of which can be explored through the FAD approach. To show this, it was enough to identify the *proximate* forces that shaped the entitlement sets of different social classes at the moment of final denouement; and this is what Sen did.

Secondly, even if one considers the lack of historical depth to be an inadequacy of Sen's empirical analyses, it does not thereby follow that the entitlement approach as such suffers from this inadequacy. As we have seen, far from being intrinsically ahistorical, the approach itself invites deep historical analysis; it does so by asking the analyst to delineate the forces that have shaped the endowments and entitlement-mappings of different social classes. If Sen has failed, in the eyes of some, to respond adequately to that invitation, this does not detract anything from the capability of the approach itself.[26]

### *(iii) The Entitlement Approach is Not Sufficiently Forward-Looking*

While some have accused the entitlement approach of not being sufficiently backward-looking, others have accused it of not being sufficiently forward-looking either. Here we shall take up the views recently expressed by de Waal (1990). Based on the insights gained from his extensive studies on famines in Africa (especially, the Sudan), de Waal has come to believe that the entitlement approach has serious problems in accounting for some important aspects of famines, especially the famines of the kind that has plagued Africa in the recent decades. He has two distinct arguments which imply that this weakness of the entitlement approach arises from its inability to be sufficiently forward-looking.[27]

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[26] Indeed, Patnaik's own analysis of the Bengal famine can be seen as a fine example of historical entitlement analysis, ignoring of course her inclination to accord a special status to the trend of food availability.

[27] For a comprehensive critique of de Waal's views, see Osmani (1991). See also de Waal's rejoinder (de Waal 1991).

The first argument follows from the observation that when the threat of famine looms large the poor and the vulnerable do not resign themselves passively to the fate, but rather try to confront the adversity by using various 'coping strategies'. One such strategy is to try and preserve the productive assets they own, even at the cost of great temporary distress, so that when the worst is over they can get on with their lives again. This resolve to preserve assets often means that they accept starvation in the short run which could have been avoided, or at least mitigated, if they had decided to trade assets for food. De Waal contends that this is the kind of starvation that is typically observed in African famines. In other words, we have famines in which people are seen to be starving because they 'chose to starve'.

De Waal suggests that, accounting for such famines -- where people 'choose to starve' -- is outside the pale of the entitlement approach. The reason is apparently a simple one. According to the entitlement approach, a famine occurs when a lot of people 'have to starve' because their entitlement sets have shrunk in such a way that starvation cannot be avoided no matter how the resources are allocated. But here are famines in which people didn't have to starve -- rather they chose to starve. So apparently, the entitlement approach doesn't work; and the reason for its failure seems to lie in its ability to be forward-looking, i.e., in its inability to recognize that people can choose to starve with a view to protecting their future livelihood.

But a little reflection will show that there is really no such failure. It is true that the standard presentation of the entitlement approach -- of the kind given earlier in this paper -- assumes a single-period context; and when a single-period analysis is confronted with an essentially intertemporal phenomenon, problems are bound to arise. But there is nothing intrinsic about the entitlement approach which is bound to confine it to the single period. It is possible to extend the approach intertemporally, and it is easy to show that such an extension can fully accommodate famines of the kind described by de Waal.[28]

In the intertemporal context, we shall have to think of a multi-period entitlement set, defined as the set of alternative time-profiles of food

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[28] Sen himself has noted this possibility, in passing; Sen (1981b), p.50, fn.

consumption that can be obtained from current endowments and current and future entitlement mappings. Now consider the situation where the intertemporal entitlement set defined over the two periods -- present and future -- has contracted in such a way that a person can have adequate food in at best one of the two periods, but not in both. In this situation, he will have to choose between starving now and starving in future. This is obviously the situation facing the famine victims described by de Waal. If they sell their assets, they can possibly avoid starvation now, but this will mean starvation in future; and if they wish to avoid starvation in future they must accept starvation now. So if de Waal is right in observing that people chose to starve in famine conditions, it means they chose the second of the two options. But the very fact that they chose this option implies that their intertemporal entitlement sets did not contain any time-profile of consumption that could save them from starvation in both periods. This is nothing other than 'entitlement failure' -- in the intertemporal sense.

In other words, what appears to be a case of 'choosing to starve from the myopic perspective of the present, is really a case of 'having to starve' from the perspective of intertemporal decision. So the framework of entitlement failure is equally applicable to those famines in which people apparently 'choose to starve'.

De Waal has a second line of criticism which also points to an alleged myopia of the entitlement approach. The problem, as he sees it, stems from its preoccupation with food. The very concept of entitlement -- in the context of famine, at least -- refers to command over food. But, as de Waal rightly observes, command over food cannot explain a lot of what happens during a famine. For example, he marshals convincing evidence to show that the incidence of excess mortality during famines bears little correlation with the extent of entitlement failure across regions and socio-economic groups. This lack of correlation suggests the presence of other significant explanatory variables. De Waal lays particular stress on the effects of social disruptions related to wars, etc., leading to mass migration, unhygienic living conditions and the outbreak of disease, which have a profound impact on morbidity and mortality.

These features of "social disruption, migration, and disease, are all part of famine", and yet "the entitlement account makes no room for these, and

instead concentrates only over command over food through production and exchange." (de Waal 1990, p. 473.) Consideration of these features will involve a dynamic analysis of how famine evolves over time. But the entitlement approach is deemed incapable of such a dynamic analysis, focused as it is on the failure of food entitlement at a point in time. As a result, it is argued, the entitlement approach cannot but give a thoroughly inadequate account of famines.

This argument has considerable force. It is indeed undeniable that morbidity and mortality do not depend on food consumption alone. To that extent, the entitlement approach is bound to give an inadequate account of famines. But I shall nonetheless argue that this inadequacy cannot be seen as a criticism of the entitlement approach. To think otherwise is to misunderstand the objective of this approach.

There are two distinct aspects of any comprehensive understanding of famines -- one relates to its cause and the other to its dynamics (i.e., the evolution of the plight and behaviour of famine victims once the famine is on its way). Sen developed his entitlement approach to study the *causation* of famine, while de Waal is primarily concerned with its *dynamics*. Since famine is initially about the lack of food, and only subsequently about disease and death, a study of causation can legitimately focus on food as the point of departure for looking back at the chain of events that have led to the crisis. This is precisely what the entitlement approach intends to do.

However, any analysis of how the famine evolves, once it is on its way, must go beyond the focus on food, and bring in events such as social disruption, migration and disease, which de Waal rightly regards as very important factors shaping the eventual pattern of morbidity and mortality.[29] This obviously means that the entitlement approach cannot on its own serve

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[29] It is of course conceivable that in some cases an initial social disruption or mass migration, caused for example by a war, may enter the story of causation as well. But if such disruptions do cause famine, they can only do so by causing a failure of food entitlement at some point in the chain of events. So, it would still be legitimate to focus on food as the point of departure for looking back into the chain of causation; thus, the entitlement approach is perfectly capable of accounting for famines caused by social disruptions, etc.

as the theory of famine dynamics.[30] This is a genuine limitation, but not a ground for criticism because the limitation follows from the very nature of the task enjoined upon the entitlement approach -- it was designed to shed light on causation, not on dynamics.

*(vi) The Entitlement Approach Says Nothing New: Conceptually*

The point that the entitlement approach offers nothing new at the conceptual level has been made by a number of both sympathetic critics and hostile opponents. Among the former category, Srinivasan (1983, p.200) remarks, for example, that "The 'entitlement approach' is a fancy name for elementary ideas fairly well understood by economists, though not necessarily by policy-makers." Despite this perception of a lack of novelty in the realm of ideas, however, these commentators still feel that Sen's lucid exposition is a great help in clarifying our understanding of famines.

A genuinely hostile critic is Ashok Mitra. Not only he does not find anything new in the concepts, he also insinuates that Sen may be deliberately trying to hide the ugly truths behind poverty and starvation by presenting old ideas in a new garb.[31] This insinuation does not deserve to be dignified with a response, but the general point about the lack of conceptual novelty needs to be addressed.

The case of the critics -- both sympathetic and hostile -- seems to rest on the following observation: the basic conceptual categories used by Sen are only slight variations of older concepts familiar to economists. For instance, endowment sets are a close relative of the 'distribution of property and incomes' (Mitra 1982, p.488), the idea of entitlement mapping 'can be easily

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[30] Sen himself is keenly aware of this: for example, "the entitlement approach focuses on starvation, which has to be distinguished from famine mortality, since many of the famine deaths - in some cases most of them - are caused by epidemics, which have patterns of their own. The epidemics are, of course, induced partly by starvation but also by other famine characteristics, e.g. population movement, breakdown of sanitary facilities." (Sen 1981b, p.50)

[31] "It is not immediately obvious that by presenting the analysis in the manner he has presented it, Amartya Sen has helped to clarify the underlying realities; a few at least would be led to assert that he is desperately anxious to obfuscate realities." (Mitra 1982, p.489)

fitted into the terms of trade paradigm' (Mitra 1982, p.488), and the entitlement set 'is not different in essence from purchasing power in the broadest sense' (Patnaik 1991, p.2). So 'entitlement failure' -- the central concept of famine analysis -- can be translated in more familiar terms as follows: loss of purchasing power in the broadest sense arising from adverse changes in either the distribution of property and incomes or in the terms of trade defined in the broadest sense. Of course, as the critics themselves recognise, in each of these cases, the old concepts have to be stretched a little to conform to Sen's categories. But surely such stretching at the margin can hardly justify the attribution of any breathtaking conceptual innovation to the entitlement approach.[32]

This argument is valid as far as it goes, but to go on from here to claim that the entitlement approach is devoid of conceptual novelty is going too far. Such a claim amounts to adopting a very crudely reductionist view: one looks at each of the building blocks *in isolation,* finds them to be only slight variations of more orthodox concepts, and thus concludes that there is nothing new in the theory at the conceptual level. But the innovative features of a theory do not reside merely in the individual building blocks, but also in the manner in which they are put together. For, by putting together familiar ideas in a novel manner, it may often be possible to ask new questions and to find new answers to old questions. It is precisely in this way that, I believe, the entitlement approach makes a fundamental conceptual contribution to our understanding of famines.

The crucial innovation here is to make the notion of entitlement failure the central concept of famine analysis. By taking it as the point of departure, and by defining entitlement in such a way that it becomes a function solely of endowment sets and entitlement mappings, this approach invites the analyst searching for causes to look for changes in endowments and mappings. We have already noted the attractive features of this invitation. In the first place, it prepares the analyst for *plural causes* i.e., for the possibility that there may exist a variety of causes behind a famine, in contrast to the traditional approach which directed attention to a single cause in food availability

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[32] But I do believe this is justification enough for introducing new terminology - a view evidently not shared by many critics. This is, however, more a matter of semantic taste than of substance.

decline.[33] Secondly, it allows the analyst to trace the *asymmetric impact* of famines on different social classes by enabling him to study their entitlement sets at a disaggregated level -- something that is not possible under the food availability approach.

So the novelty of the entitlement approach does not lie primarily in the individual concepts it employs; it lies rather in the manner in which these concepts are brought together so as to pave the way for studying *plurality of causes* and *asymmetry of impact*. It is the possibility of studying these two features that is novel, and the contribution of the entitlement approach consists in creating this possibility.

### *(v) The Entitlement Approach Says Nothing New: Historically*

We shall finally consider a line of criticism that goes even further than the preceding one. It has been suggested that, whatever may be the conceptual novelty of the entitlement approach, Sen's contribution does not represent any real advance, since all this was known before. Note that the point here is not merely that Sen used concepts which were already familiar to economists -- a point we have already discussed above -- but that the way he used those concepts to supposedly create a new way of understanding famines was also nothing new. Mitra (1982, p.488) makes this suggestion in the most trenchant manner: "Amartya Sen, I am afraid, has not said anything beyond what our great-grandmothers were already aware of". In a more scholarly vein, Rangasami (1985) has made the same point by claiming that the late nineteenth century literature on Indian famines was based on the spirit, if not the language, of the entitlement approach. Since we have rather more evidence on what this literature had to say than what our great-grandmothers used to know, I can only deal here with the former.

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[33] Reutlinger (1984, p.884) makes this point forcefully when he says, "his food entitlement approach should inevitably lead to a better understanding of famine-related issues than has been the case. This is so because his approach defines a famine in a way which immediately draws attention to a multiplicity of possible causes. ... the alternative approach of attributing a famine to a single cause, while having the virtue of simplicity, will usually be wrong."

The second half of the nineteenth century witnessed a sharp increase in the recurrence of famines in India. This prompted the British administration to set up a series of official enquiries and to develop a code of administrative actions to be taken for the purpose of relieving distress at times of famine. The resulting Reports of various Famine Enquiry Commissions (FEC) and the successive refinements of Famine Codes present a rich picture of contemporary thinking about famines. It is this literature that Rangasami refers to in support of her claim.

She begins by acknowledging a certain ambivalence in official views, as reflected in the FEC Reports on the one hand and the Famine Codes on the other. The Reports, she notes, often take the typical FAD view, but the Codes appear to exhibit a keen awareness of entitlement-based thinking. She explains this duality in the following manner. The Reports were designed to exonerate the administration from any blame for the famines; and by attributing famines to the stinginess of nature, the FAD view fitted nicely in this design. In contrast, the framers of the Codes, whose business it was to organise relief, presumably took a more pragmatic approach; they recognised that "the coming of famine was due to a number of causes; the decline of food availability, for whatever reason, was one of them", and that even when such decline occurred "it had to be considered within its social and economic context". (Rangasami 1985, p.1798.) Rangasami suggests that such pragmatism not only led to the adoption of what was essentially an entitlement-based approach in the Codes, but also influenced the later Reports to come round to this approach.

I shall argue that Rangasami's reading of the nineteenth century literature is only partially right. It is indeed true that this literature displays a keen awareness of entitlement-based thinking, and, in this sense, can legitimately claim to be a precursor of Sen. But it would be going too far to suggest that Sen made no advance on earlier thinking, apart from giving a formal language to incipient ideas. The truth is that Sen's formalisation of the entitlement approach allowed a new idea to emerge which was conspicuously missing in the earlier literature: it is the idea that famine can strike even when there is no decline in the production of food. For all its achievements in moving towards an entitlement-based approach, the earlier literature never escaped from the age-old view that famines are invariably connected with decline in food production. It was only with Sen's

formulation of the entitlement framework that this escape was finally possible.

It would however be illuminating to begin by noting how close the nineteenth century literature came to grasping the essence of the entitlement approach. As early as in 1862, Baird Smith had made the uncannily Sen-like remark that 'our famines are rather famines of work than food'.[34] The Famine Codes that were developed in the last two decades of the nineteenth century and in the first decade of the twentieth, urged close monitoring of prices, wages, and employment - in addition to crop output - as a method of anticipating impending famines. This shows that the framers of the Codes were conscious that famines could follow the breakdown of what Sen was later to call the entitlement mapping. Building on the insights contained in all the FEC Reports and Famine Codes, as well as other related literature of that period, Loveday (1914) wrote a book on the economics of Indian famines that remains a classic example of entitlement-based thinking. He not only shows clear awareness that when a famine strikes it usually does so by breaking down what would now be called entitlement mappings, but also gives a rich historical account of how British policies over the decades had made the Indian population vulnerable to famines by eroding their entitlements in various ways.[35]

There is thus unmistakable evidence of the existence, one might even say pervasiveness, of entitlement-based thinking in the earlier literature on Indian famines. But it is equally true that this thinking co-existed with the view that the origin of famine lies necessarily in nature i.e., climatic disturbances causing disruption in food production. Furthermore, this co-existence was not a sign of ambivalence, as Rangasami tends to think, but one that was organically linked to form a single consistent approach. The analysis always started from the premise of reduced food production; but instead of confining the focus on aggregate availability, an attempt was

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[34] Quoted in Loveday (1914, p. 46) from Smith's 1962 Report on Famine in the North-West Province.

[35] On this aspect of the impact of British policies, Loveday's views were very similar to those of contemporary nationalist thinkers of India, with the importance difference however that unlike the nationalist thinkers he considered these problems to be no more than temporary dislocations caused by the socio-economic transformation being carried out by the British rulers.

made to trace the effect of reduced production on the entitlements of different social classes by noting the repercussions on prices, wages and employment.

There was in this respect no difference in the views of FEC Reports and Famine Codes, as suggested by Rangasami. She is much impressed by the stress laid by successive Famine Codes on the monitoring of prices, wages and employment, as being the embodiment of entitlement-based thinking. But a closer scrutiny shows that in the thinking of the authors of these Codes such monitoring was always causally linked with prior disturbance in food production. A good example is the following excerpt from the Madras Code of 1883 which Rangasami herself quotes (p. 1798):

> "It is at all times an essential part of the duty of the collectors to scrutinise carefully the returns of rainfall and prices and to bring promptly to the notice of the Board in the Department of Land Records and Agriculture whenever there is any general failure of crops of abnormal rise in prices. A rise of forty per cent above normal in the price of the second sort of rice and of fifty per cent above normal in the price of dry grain is a sure sign of severe scarcity. ... (However,) When wages ordinarily rise high, a rise of 40 or 50 per cent in prices may be borne with comparative ease, the wages still covering an ample supply of necessary food, but when they are low a much smaller rise may produce privation."

The clear link between rainfall, scarcity, prices, and wages drawn above demonstrates that while the Codes did take an entitlement perspective, they saw the origin of entitlement failure in an initial loss of agricultural production.

Similarly, the FEC Reports too combine a production-centred view of famine with the entitlement-based analysis of its effects. For example, the Report of the 1880 famine, from which Rangasami quotes to demonstrate its FAD view,[36] also elsewhere makes the following exemplary analysis of entitlement failures:

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[36] This is the quotation she cites: "The devastating famines to which the Provinces of India have from time to time been liable, are in all cases to be traced directly to the occurrence of seasons of drought, the failure of the customary rainfall, leading to the failure of food crop on which the subsistence of the population depends." (Rangasami 1985, p.1798, quoting from the Report of Famine Enquiry Commission of 1880.)

> "The first effect of famine is to diminish greatly, and at last to stop, all field labour, and to throw out of employment the great mass of people who live on wages of such labour. A similar effect is produced next upon the artisans, the small shop-keepers, and traders, first in villages and country towns, and later on in the larger towns also, by depriving them of their profits, which are mainly dependent on dealings with the least wealthy classes; and lastly, all classes become less able to give charitable help to public beggars, and to support their dependants." (Famine Commission, 1980, p. 49.)

Here is a classic analysis of how famine spreads through a chain reaction of entitlement failures: first goes the employment of agricultural labourers, setting off a chain of knock-on effects on artisans, traders, and beggars. But notice how the analysis begins; it does so by taking employment failure as the first *effect* of famine, not as its cause. Famine is obviously identified with the loss of food production in the first place, and only then the analysis proceeds by tracing its effects through an entitlement-based reasoning.

There is thus no justification for postulating any duality between the allegedly FAD-ist FEC Reports and the 'pragmatic' Famine Codes which alone are supposed to have embodied the real intellectual advance that was made in the development of entitlement-based reasoning. Such advance as was made was shared by both Reports and Codes, and they both equally linked entitlement-based reasoning with a production-centred view of famines. Writing in the second decade of the twentieth century, when the insights of all the Reports and Codes had become part of the received wisdom, Loveday spelt out this linkage succinctly as follows:

> "It would at the present day be more accurate to describe these calamities (famines) as temporary dislocation of employment amongst large numbers of the population *consequent upon failure in the crops of the season.*" (Loveday 1914, p.1; emphasis added.)

It was in fact no accident that the contemporary thinking about famine should be so inextricably linked with the idea of shortfall in food production. The Malthusian doctrine was reigning supreme at the time. The British officials had of course long since held the Malthusian theory of population, but it was only in the second half of the nineteenth century that it was

applied vigorously in the Indian context. The reason was primarily a political one. It was a bit of an embarrassment for the British Raj that famines had begun to recur at an unprecedented frequency just after the rule of India had passed over from the East India Company to the Crown. The Malthusian theory came handy at the time to save the embarrassment. In fact, it did more than that; it turned a potential embarrassment into an occasion for boasting.

It began to be argued that if famine was less frequent in the earlier era it was only because population was then held back by two other Malthusian checks, viz. war and pestilence. But now that the British rule had eliminated these two checks, by bringing peace and stability in the country and by improving living conditions of the people, famine remained the only other check available to nature for keeping population in line with the fertility of soil. By using this ingenious argument, the apologists were able to explain the increased frequency of famines as an unfortunate by-product of the economic and political revolution initiated by the British rule! Ambirajan (1976) has shown that not only was this idea very widely shared at the time by most British observers (with some rare exceptions), it also held sway over many influential Indians.[37] Given this climate of opinion, it was little surprise that the authors of the FEC Reports and Famine Codes of the late nineteenth century should equate famine with shortfall in food production.

But, to their credit, these authors were far from being crude Malthusians. It is true that their Malthusian perspective inclined them towards the contemporary view that excessive population growth had led to a precarious balance between man and nature, but starting from this premise they went on to develop a rich analysis of famines. In particular, they drew two implications from this supposedly precarious balance, which had far-reaching consequences for liberating their analyses from the traditional mould.

First, they argued, since too many people lived off land, even a slight disturbance to the normal level of food production could set off a big crisis by

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[37] There were however differences of opinion on whether crises were inevitable or whether they could be averted with the help of appropriate policies. For more on this, see Ambirajan (1976).

throwing a lot of people out of employment and thus setting off a chain of entitlement failures in the manner described earlier. Secondly, they noted that when famines were indeed set off by such slight disturbances, the aggregate availability of food was not in itself such a big problem, especially since the improvement of communications effected by the British had made it possible to make up small shortfalls in production in affected regions by importing food from other regions of this vast land.

The second implication constituted in effect a liberation from the FAD-view of famines.[38] It is this intellectual triumph that is reflected in statements such as Baird Smith's "our famines are rather famines of work than food". This was a great leap forward towards the entitlement approach, but the transition was not complete; for, as can be seen from the first of the two implications drawn, the liberation from a production-centred view (as distinct from the availability-centred view) had yet to occur. Taking this final step was not easy in the prevailing climate of opinion, which generally accepted the Malthusian paradigm as the basic conceptual framework.

The final liberation became possible only when Amartya Sen provided an alternative conceptual framework in which entitlement failure was made the *point of departure* for famine analysis. The nineteenth century authors took loss of production as the point of departure, and then proceeded to analyse its effect in terms of a chain of entitlement failures. Sen in effect inverted this process, by making entitlement failure the starting point, and directing backwards the search for causes. Only then was it possible to see that famines need not originate from production failure; varieties of other causes -- such as inflationary pressure as in the Bengal famine of 1943, or a speculative spree encouraged by a weakened public distribution system as in the Bangladesh famine of 1974 -- can equally cause a chain of entitlement failures culminating in a famine. Amartya Sen's advance over earlier thinking consisted precisely in opening up this possibility of exploring plurality of causes, by making entitlement failure the analytical point of departure.

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[38] Ghose (1982) presents statistical support for the view that most of the famines in the nineteenth century indeed occurred at times when there was no serious decline in overall food availability.

## 5. Summary and Conclusions

The aim of this paper was to evaluate the various criticisms that have been made of Amartya Sen's entitlement approach to famine. The assessment was limited to the class of criticisms that relate to the analytics of the entitlement approach in general, rather than to the specific applications of the approach. The major conclusion that emerges from this assessment is that none of the criticisms appears to hold good once the true nature of the entitlement approach is clarified.

I have shown that the criticisms arise mostly from misunderstandings of one sort or another. The most persistent misunderstanding has been the notion that the essence of entitlement theory was to debunk the traditional 'food-availability-decline' (FAD) hypothesis of famine, and to replace it by the alternative hypothesis of entitlement failure. It is this hypothesis-view -- i.e., the notion that the objective was to substitute one hypothesis of famine causation for another -- that is responsible for a good deal of confusion and a lot of unwarranted criticism.

In fact, what Sen was trying to substitute was not one *hypothesis* for another, but one *approach* for another. While debunking FAD, his concern was to discredit the FAD *approach* - an approach towards understanding famines which focuses on aggregate food availability as the crucial analytical variable. A general debunking of the FAD *hypothesis* was not his aim; that is to say, it was not his contention that famines were seldom, or never, caused by food availability decline. The failure to see this distinction between approach and hypothesis has led to the erroneous notion that the main purpose of entitlement theory was to propose an alternative hypothesis of famines.

I have suggested that at least in part the root of this misunderstanding may lie in the restrictive nature of Sen's original formulation of the approach. However, the more general formulation presented in his later writings, especially in his *Poverty and Famines*, lends no support to the *hypothesis-view* of entitlement theory. What we have there is rather an *approach-view*. According to this view, the entitlement theory provides an organising framework for searching the causes of famine, and claims that this framework is superior to that of the traditional FAD approach.

The framework suggested by this approach takes entitlement failure as the analytical point of departure by defining famine as widespread failure of food entitlement. The search for causes is then directed backwards to identify the forces that have led to this failure. The framework also provides a neat organising principle for conducting this search, because by definition entitlement failure can only be caused by forces which belong to either of two categories -- one involving the endowment set and the other involving the entitlement mapping. The task of the analyst then reduces to searching for forces which might have impinged upon either endowments or entitlement mappings, or both.

An important implication of taking the approach-view is that the entitlement theory cannot be seen to be either proposing or denying any specific hypothesis of famine causation. In particular, one must discard the popular view that the raison d'etre of the entitlement theory is to debunk the FAD hypothesis. The fact is that the entitlement approach subsumes the FAD *hypothesis*, while rejecting the FAD *approach*. This means that this approach allows for the possibility that famines can be caused by food availability decline, but it insists that instead of confining the focus on the level of aggregate availability, the analyst should explore the various mechanisms through which the reduction in availability affects the entitlements of different social classes.

The reasons for proposing the entitlement approach in preference to the FAD approach are two-fold. First, the entitlement approach allows for *plurality of causes*, as opposed to the single-cause focus of the FAD approach. In other words, this approach allows one to see that famines can occur even when nothing unusual happens to the production or availability of food. Secondly, the entitlement approach can account for the familiar observation that famines typically have *asymmetric impact* on different social classes, something that cannot be accounted for in the aggregative framework of the FAD approach.

Once the approach-view is accepted as the correct interpretation of entitlement theory, the weaknesses of its criticisms become immediately transparent. One set of criticisms alleges that the entitlement approach has only limited applicability because there are instances of famine which were

actually caused by food availability decline. This line of criticism fails to appreciate that the FAD hypothesis is subsumed by the general framework of the entitlement approach -- only the necessity of the FAD hypothesis is denied, not its sufficiency.

The second set of criticisms contends that the entitlement approach is incapable of providing a rich historical account of the origins of famine. An important part of understanding any famine is to learn how the vulnerability to famine was historically created. But it is alleged that the entitlement approach cannot achieve this understanding because by defining famine as entitlement failure, it fixes its gaze on the final denouement of the historical process. This criticism stems from a simple misunderstanding about the strategy of the entitlement approach. The logic of defining famine as entitlement failure is not to keep one's eyes fixed on the moment of final denouement, but rather to direct backwards the search for the causes of failure. Historical analysis is therefore an essential feature of the entitlement approach to famine.

The opposite allegation that the entitlement approach is not sufficiently forward-looking has also been made. I have discussed two variants of this criticism. One of them argues that by defining famines as situations where people 'have to starve', the entitlement approach fails to account for those instances of famine in which people 'choose to starve', for example, by refusing to sell their assets in order to protect their future livelihood. All that is required to counter this criticism is a simple intertemporal extension of entitlement analysis, because what appears to be a case of 'choosing to starve' is really a case of 'having to starve' from an intertemporal perspective.

The second variant of the criticism points out that, by focusing on food, the entitlement approach fails to explain fully the complex dynamics of famine, in which factors other than food also come into play to determine the pattern of famine mortality. Unlike most other criticisms, this one correctly identifies a genuine limitation. But that is how it has to be seen - a limitation, rather than a criticism - because the entitlement theory was meant to be a theory of causation, not a theory of dynamics. A theory cannot be criticized for not being what it was not meant to be.

The next set of criticisms takes an altogether different line. It argues that there is really nothing new in the entitlement approach, because the concepts it uses are only slight variations of familiar concepts long used by economists. The problem with this criticism is that it is unduly reductionist, judging, as it does, the conceptual novelty of an approach solely by the novelty of the concepts considered in isolation. The real novelty of the entitlement approach lies in the manner in which familiar-looking concepts are brought together to create a new way of understanding famines - a way, which unlike the traditional way of thinking, allows for plurality of causes and asymmetry of impact.

The final set of criticisms goes one step further. It contends that the entitlement approach cannot even claim to have opened up a new way of understanding famines, because people knew it all before. Reference, for example, is made to the nineteenth century literature on Indian famines to prove the point. I have argued that while this literature had indeed gone a long way towards adopting the entitlement approach, in one crucial respect it was still bound to the traditional way of thinking. It had learnt to analyse famine as a chain of entitlement failures, and it had also managed to liberate itself from exclusive concern with aggregate food availability, but it was still to liberate itself from the idea that famines necessarily started with some disruption in food production. The analysis always started from loss of production; its effect was then traced through a chain of entitlement failures. Only when Amartya Sen inverted the analytical process, by making entitlement failure the point of departure and directing backward the search for causes, did it became possible to see that factors other than production failure can also cause famine by precipitating entitlement failures. It is this analytical innovation, which allowed the exploration of plural causes, that constitutes Amartya Sen's advance over earlier thinking.

In my judgement, therefore, the entitlement approach comfortably survives all the criticisms it has been subjected to at the general analytical level. But a few qualifications are worth bearing in mind. First, when we speak of the entitlement approach, we ought to think of the general formulation as developed in *Poverty and Famines*, instead of clinging to the restricted formulation as presented in Sen's earliest writings. Second, while the entitlement approach is ideal for studying the *causation* of famine, it cannot claim to provide a complete account of famines; the consideration of

famine *dynamics*, for example, will have to involve many other factors besides entitlement to food. Third, even in the study of causation, the adoption of the entitlement approach is in itself no guarantee that a correct understanding will be achieved; in particular, one is liable to get a rather distorted picture if the analyst fails to take a sufficiently historical view of how the entitlements of different social classes evolve over time.

One final remark remains to be made. In this paper, I have concentrated only on famine-related issues, which was of course the original terms of reference for the entitlement approach. But there is also a great potential of applying this framework in the study of long-term endemic hunger. When economists study the impact on hunger and poverty of secular forces such as population growth or technological change or institutional innovations, etc., there is often a tendency to judge the effect in terms of aggregate output. But the entitlement framework offers a different, and richer framework, of studying these impacts. By urging the study of the disaggregated entitlements of different social classes, this approach alerts the analyst to the asymmetries that may exist in the impact of these secular changes; and it turns out that these asymmetries are often very crucial in assessing the impact on hunger and poverty. A complete assessment of the entitlement approach cannot be done without bringing in this dimension of endemic hunger; but this exercise must be left for another occasion.

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