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## **FAD: SEN-BOWBRICK ENCOUNTER AND CONCEPTUAL COMPLEXITY**

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### **ABSTRACT**

FAD is an acronym for “Food Availability Decline.” Amartya Sen coined this acronym in 1976 to introduce a novel theory to explain the causation process of famines in Africa and South Asia during the 20th century, which is famously known as the “Entitlement Approach to Famine Analysis (EAFA).” In 1981, he published a monograph, *Poverty and Famine: An Essay on Entitlement and Deprivation*, to consolidate his famine philosophy. EAFA is genuinely a novel. Naturally, it provoked colossal literature that examined its theoretical and practical virtues. Unfortunately, the controversy over Sen’s famine philosophy did not die down over this long period of time. One suspected reason is that Sen did not clarify FAD’s meaning unambiguously, i.e., he left some space for his readers to interpret the term differently. Sen admirers and critics seem to have overlooked this suspicion, although it clearly surfaced in the Sen-Bowbrick in 1986. This debate resulted from Sen’s reply to Bowbrick’s critical article published in *The Journal of Peasant Studies*. Based on their debates, this article analyses two questions: What is FAD? What does it denote: a “secular” or “temporary” decline in food supply? The paper concludes that Sen’s FAD concept can be given different interpretations. More specifically, his understanding of FAD as a secular decline in food availability is inconsistent with the definition of famine, which means mass death in an area due to starvation and related diseases. Sen’s study of four gruesome famines suffered in the last century corroborates this conclusion. The controversy concerning Sen’s FAD criticism seems more a semantic matter than an intellectual one.

**Key Words:** Amartya Sen, Entitlement Approach to Famine Analysis, Food Availability Decline, and Sen- Bowbrick Debate.

### **I. INTRODUCTION**

Peter Bowbrick is a passionate Sen Critic (Bowbrick, undated, 2022, 2021, 1986, 1987, 2015). His first provocative article, ‘the causes of famine: A refutation of Sen’s theory,’ appeared in the *Food Policy*. In this article, he lambasted Professor Sen by arguing that his theory of famine would lead to ‘wrong diagnosis and wrong remedies’ and, therefore, would ‘worsen the famine situation’ instead of improving it (1986). Sen, in turn, responded with an equal degree of combativeness. He characterised the critique as an affluent combination of conceptual confusions, empirical misstatements and systematic misrepresentations of his views (Sen, 1986). An interesting point to note from this encounter is that Sen’s interpretation of FAD theory appears contradictory to his original version in the *Economic and Political Weekly* (Sen, 1976). The primary objective of this paper is to analyse this contradiction to highlight the idea that the continuing controversy over Sen’s entitlement approach to famine analysis (EAFA) is the result of the use of unclear and uncommon terminologies and their conflicting interpretations (Elahi, 2006, 2018; Gasper, 1993; Devereux, 2007).

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## II. SEN'S FAD DEFINITION AND INTERPRETATION

Understanding Sen's FAD conception is crucial for scholars, researchers, and professionals in famine analysis and food policy. Sen first introduced this concept in the *Economic and Political Weekly*:

The approach of 'food availability decline,' which I will call FAD (without apologizing), attributes the causation of famines to a sharp decline in the availability of food supply in the region in question. This is the common element of the approach, though the manifestations of famines can be explained in one of several distinct ways. The causation of the sudden decline of food supply can also be explained in many different ways. Frequently enough, FAD goes with a Malthusian theory of population ... The essential aspect of FAD is the view that famines are caused by a sudden decline in food availability, and no matter what the immediate causes of this decline are or what its predisposing conditions happen to be, FAD stands as long as the famine is accepted to be the result of that decline (Sen, 1976, p. 1273).

Sen has used this FAD description in all his subsequent publications (Sen, 1977, 1980, 1981a and 1981b). The idea of FAD, communicated through the above statement, seems pretty straightforward. However, confusions crop up about its supposed signification when one reads Sen's response to Peter Bowbrick's 1986 article. Two paragraphs from that response are quoted below. These paragraphs, Sen says, highlight the nature of conceptual confusion distorting Bowbrick's entire line of reasoning.

Among his many confusions, one particular one distorts his analysis throughout the paper, to wit, that between 'food availability decline' (FAD) and the 'shortage' or 'inadequacy' of the current stock of food. To claim that a particular famine was not caused by food availability decline does not imply, as Bowbrick seems to think it does, that 'there was adequate food available' (p 121) or that 'there was no real shortage' (p 122). FAD refers to a decline of food supply *over time*, whereas the notions of adequacy or shortage - ambiguous as they may be - must refer to the size of food supply vis-à-vis something else (e.g. demand or needs) at a particular *point in time* e.g. there being currently no excess demand at the ruling prices. Neither entails the other.

As I have discussed in some detail elsewhere, there was tremendous pressure on supply given the rapid expansion of demand during 1942 and 1943 (connected with the war efforts and related economic activities), but the intense excess demand was certainly not caused by any sharp decline in food availability. Bowbrick is quite right when he says: 'If one accepts that there was a shortage, the price rises are easily explained' (p 116). But a shortage in this sense (essentially the existence of excess demand in the market) can occur without FAD, i.e. without any decline over time of food availability, since the market demand can sharply rise over time. That market demand rose rapidly over 1942 and 1943 is a central part of my analysis of the Bengal famine. Bowbrick's discussion of famines in general and of the Bengal famine in particular is rendered rather chaotic by his persistent confusion between 1) availability decline over time, and 2) supply inadequacy and shortage at a point of time (Sen, 1987, pp. 125-26).

### III. SOME OBSERVATIONS ON THE SEN-BOWBRICK ENCOUNTER

#### **Amartya Sen**

In the above quote, Sen makes two interesting arguments. First, let us examine his concept of 'current food stock.' This concept will remain unclear until we qualify it with the unit holding the stock. It could refer to a household, a village where rural people live and earn their livelihood or an area where these people trade food. Food stock statistics can also be classified at regional, national, and international levels. The critical question in the context of our discussion is identifying the stock unit related to starvation and famines. The household is the most appropriate food stock unit since famine refers to deaths from starvation or starvation-related diseases.

From this line of reasoning, a system of thoughts emerges that has not been examined before. Let us divide all adult people of a village into four groups: labourers, small farmers, medium farmers, and large farmers. Medium farmers can produce enough food to meet their family requirements and a small surplus. Large farmers do have good surplus stocks. Labourers maintain their livelihoods by working in agriculture and other related activities, while small farmers can somehow survive.

When a natural disaster destroys the standing crops, the food stocks of the first two groups of villagers evaporate immediately. Village labourers will lose their job opportunities, while small farmers will lose the prospect of replenishing their food stock. Thus, FAD is a fact for these village people, meaning they become famine victims.

Second, the food supply was under 'tremendous pressure' on supply during 1942 and 1943. This pressure was built up by the rapid expansion of demand created by war and related economic activities. However, Sen underlines that any sharp decline in food availability did not cause this 'intense excess demand (Sen, 1977).'

Sen says that the soundness of his argument should be judged against the known facts (Sen, 1981b). Firstly, he highlights the FAD explanations for four famine cases: Bengal famine (1943-44), Ethiopian famine (1971-72), Sahel famine (1968-73) and Bangladesh famine (1974). According to conventional wisdom, FAD triggered these famines through floods, erratic rains, and droughts. In other words, food production at all three levels - household, village and adjacent areas - declined. Sen holds that different occupational groups suffered the famine atrocity to different degrees. In Bengal and Bangladesh, rural labourers suffered the most, while farmers and pastoralists were the principal victims in Ethiopia and Sahael. Secondly, the strength of an empirical argument hinges on the quality and accuracy of the data analysed. Several studies have questioned the quality and accuracy of data used in Sen's research have been questioned in several studies (Elahi, 2018; Ravallion, (1997); Tauger, (2003).

#### **Peter Bowbrick**

Bowbrick retorted Sen's accusation, saying that he did not confuse 'food shortage' with 'food availability decline:'

I certainly did not confuse 'shortage' with food availability decline -it is necessarily true that if there is no FAD, there is no 'shortage,' but it is not true that any FAD must imply a 'shortage.' Sen's confusion between the two appears to lie partly in the fact that he uses one or more of his own definitions of shortages, 'e.g. there being currently no excess demand at the ruling prices' when interpreting my carefully defined term. His confusion is compounded by the fact that his concept of food availability decline also keeps changing - his attacks on FAD appear to cover any economist who has so much as suggested that there could have been a decline in food availability in any famine (Bowbrick, 1987, pp. 7-8).

Bowbrick responds to Sen's accusation that he failed to distinguish between FAD, which implies a secular decrease in food supply and temporary shortage or inadequacy in food supply at a particular point in time. Bowbrick's response seems unsatisfactory because he also fails to see the connection between starvation and famine. His line of reasoning is not different from that of Sen. The mass death, usually occurring in a limited area or region, is called famine when the factors causing these deaths are starvation and starvation-related diseases. But starvation cannot be a long-term phenomenon, which raises a question of rationality in Sen's claim and Bowbrick's response.

#### IV. A CRITIQUE OF SEN'S FAD PERCEPTION

Bowbrick's rejoinder is clearly concerned with defending against Sen's accusation of 'empirical misstatements.' Accordingly, it deals extensively with statistical issues like production, carryover stocks and imports. Little attention has been given to examining Sen's interpretation of the phrase 'sharp and sudden decline' in food availability, although Sen argues that Bowbrick's critique is overwhelmingly distorted by his misconception of these basic ideas. Indeed, understanding the meaning of the key phrase in the debate is crucial for its satisfactory conclusion.

However, before examining Sen's statements in the above passages, the word famine needs a precise definition to avoid confusion about what Sen is talking about and the perspective from which he is being criticised. The literature offers a plethora of definitions, implying different ideas from different perspectives.

In the *Encyclopedia Britannica*, Basu (2017) states:

Famine [is] severe and prolonged hunger in a substantial proportion of the population of a region or country, resulting in widespread and acute malnutrition and death by starvation and disease. Famines usually last for a limited time, ranging from a few months to a few years. They cannot continue indefinitely if for no other reason than that the affected population would eventually be decimated.

Basu's definition seems satisfactory except for the word 'hunger.' Hunger is the body's normal response, foretelling that it needs food. This normal response turns into 'starvation' when the body is denied food for more than 24 hours, and it begins producing potentially harmful chemicals due to weight loss and changes in metabolism. Absolute starvation, if it continues for long, stops the supply of nutrients needed for the maintenance of life absolutely, which might eventually lead to death (Black's Medical Dictionary, (2017).

Thus, starvation is commonly used in famine analysis. Sen has also followed this tradition in articulating his entitlement theory. Besides this minor issue, two crucial points in the definition need to be underlined. First, famine is caused by starvation and starvation-related diseases, not by the 'sharp decline in the availability of food supply.' Inadequate or absolute lack of access to food availability forces individuals into starvation that might, as stated above, eventually lead to death. When this happens to many people in a specific area, the situation is called famine. Second, famine, as Basu underlines, is a temporary phenomenon. However, it must be noted that the duration of famine may vary significantly from one case to another depending upon the nature of natural disasters. For example, the Sahel famine lasted from 1968-1973, while the famine in Bangladesh ended in a few months.

There are two points in the above quotations that deserve critical scrutiny. First, Sen's definition of FAD in *Economic and Political Weekly* and his interpretation of the phrase in *Food Policy* seem inconsistent. The 'sharp decline in the availability of food supply' by no means implies a 'decline of food supply over time.' The 'sharp and sudden' change in anything must mean something different from its 'over time or secular trend.' Therefore, it is not clear why Sen has

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accused Bowbrick of ‘conceptual confusion’ and ‘systematic misrepresentation of his theory.’ If Bowbrick is guilty as charged, then all Sen readers and commentators, with some exceptions, are equally guilty. However, this does not seem to be the issue. The phrase ‘sharp and sudden decline’ is apparently meant to be understood as a ‘temporary decline’ in food availability.

Second, this interpretation becomes more appealing when we consult Sen’s opinions cited above: ‘Bowbrick’s discussion of famines in general and of the Bengal famine in particular is rendered rather chaotic by his persistent confusion between 1) availability decline over time and 2) supply inadequacy and shortage at a point of time. More specifically, a ‘sharp and sudden decline in food availability’ is a temporary phenomenon in Bangladesh. On the contrary, the famine phenomenon in the Sahel was not caused by a temporary decline in food availability as the drought lasted for several years.

This dictionary interpretation of the phrase ‘sharp and sudden decline in food availability’ raises some insinuating issues about Sen’s EAFA articulation. Firstly, the standard measure of the causation of famine is starvation, meaning any colossal death figure in a specific region will not be called famine unless the situation is somehow related to mass starvation. This kind of severe starvation cannot continue for weeks, months, or years because an individual must eat and drink regularly to survive. This is why famine, as defined above, refers to a temporary phenomenon. The idea of a secular decline in food availability is inconsistent with the occurrence of famine. It cannot explain the factors causing famine or its causation, the process through which it is instigated. Finally, Bowbrick’s terminology of shortage - used to indicate the adequacy or inadequacy of food availability *at a particular point in time* - is the appropriate term for analyzing the causes of famine.

Secondly, Sen’s conception of a secular decline in food availability can be explained only in terms of Malthusian theory. Assuming that the population grows geometrically while the food production arithmetically, Malthus predicts a dire secular or long-run consequence of the unequal race between population growth and food production. Nature, Malthus (1798) says, would eventually rectify this imbalance between food supply and population growth by causing colossal deaths through natural disasters if mankind fails to restrain its propagation through positive checks.

Malthusian theory thus satisfactorily shows the link between poverty, famine and secular decline in food availability. That Sen’s ‘secular decline’ concept is most consistent with Malthus’ population theory is evident from his reply. The notions of adequacy or shortage, Sen says, must refer to the size of food supply vis-à-vis something else (e.g. demand or needs) at a particular *point in time*. By the same analogy, ‘a decline of food supply *over time*’ must refer to the losing race between population growth and food production. Food production in an area cannot decline secularly unless the natural productivity of land declines continuously.

Thirdly, Sen denies this connection by linking the theory of FAD with Malthus’s other essay, published in 1800, *An Investigation of the Cause of the Present High Price of Provisions*. Malthus wrote this essay as a supplement to his population theory.

Malthus' theory, then, is one of a genuine **food shortage** [emphasis added] leading to price rise to eliminate a part of the demand by pricing some consumers out of the market to bring total demand in line with supply. Speculators give shape to these "genuine principles of fair trade" without aggravating the price rise, but attempts to resist the starvation of the poor by raising allowances and wages do increase the prices more than they would have otherwise (Sen, 1976, p. 1278).

“The FAD approach concentrating on **overall shortage** [emphasis added] of food supply seems to miss both the gross reality of the Bengal Famine as well as its finer details. The focus on exchange entitlements seems to permit a much more discriminating analysis (Sen, 1976, p. 1280).

As highlighted above, Sen used the word ‘food shortage’ to describe Malthus’ theory about the ‘food crisis’ and ‘high prices of provisions,’ which he calls FAD. Malthus also constantly talks about food scarcity or food shortage in his article. The difference between Malthus and Bowbrick is the following: Malthus argued about the connection between food shortage and famine during the Industrial Revolution in Europe when many of his contemporaries believed that the advancement in science and technology would end poverty in the continent. Malthus countered this viewpoint by referring to the race between population and food production.

History has proved that he was wrong in his conceptualisation of this race. Moreover, our world has very little in common with Malthus’ Europe. Therefore, a question arises as to why Professor Sen uses a theory that has been proven wrong and irrelevant. Conversely, Bowbrick is concerned with temporary food stocks, directly affecting rural dwellers whose livelihoods depend critically upon regular food production. Sen’s harsh criticisms of Bowbrick’s paper seem unfair because the backgrounds and perspectives of Malthus and Bowbrick’s works are different. EAFA, which rests on refuting the conventional wisdom of FAD, is contestable.

## V. CONCLUSION

The paper ends with a quote from Devereux (2001, p. 246):

It is common for Sen and his defenders to dismiss critics of the entitlement approach as “misreading,” “misinterpreting,” or even “misrepresenting” Sen’s intentions. But this begs the obvious question: How could so many academics have misunderstood what Sen was trying to say in *Poverty and Famines*—which is, after all, a brief essay written with great elegance and clarity?

The question Devereux has raised certainly surfs in many minds. Sen has not made the meaning and messages of his famine philosophy clear enough for the general public or professionals to develop a uniform understanding. In this respect, one issue that probably needs an intensive investigation is whether Sen has actually articulated the ‘entitlement approach’ for analysing the persistence of famine or it is essentially meant for analysing the persistence of poverty in this era of unprecedented economic progress and globalisation. This question cannot be discarded offhand because Sen used the Malthusian theory of population, poverty and famines, which has been overwhelmingly discredited.

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